Medical Advisor Journals

Overcome Infertility
How to Get Pregnant Naturally

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The End

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Special thanks to Mr. Leo Keith Lamb for contributing his time and financial support to make this E Book as free distribution for public download. Please make donation, if you can help to support the making of the next e book (Fertility and Infertility)

Chapter I - Understand Fertility, Infertility, Causes and The Causes of Cause of Infertility

Fertility is a natural process to insure the survival of human species. Through natural selection, we produce many offspring when the reproductive system works at it's peak in the suitable environment with plenty of food around. On the other hand, the reproductive system may completely shut down or work at it's minimum state and we produce less offspring, when the environment is hostile including less foods around, war, epidemic, but regardless of all these factors, most women are capable of conceiving during their menstrual cycle before reaching the stage of menopause.

Infertility is defined as the inability of a couple to conceive after 12 months of unprotected sexual intercourse. It effects over 5 millions couple alone in the U. S. and many times more in the world. Because of an unawareness of treatments, only 10% seeks help from professional specialist.

A. Overcome Infertility --Understand Fertility
I. The rate of pregnancy

Statistics show that before:

1) the age of 31, 73% will get pregnant within one year, and 90% within four years
2) the age of 36, 65% will get pregnant within one year, and 82% within four years.
3) the age of 41, 40% will get pregnant within one year, and 60% within four years
You can see the rate of pregnancy goes down with age.

Although women can get pregnant anytime during their menstrual cycle, the best days to get pregnant are 2 days before and after ovulation because the sperm can only survive 2-3 days(sperm may survive up to 6 days) in the uterus after ejaculating into the vagina.

II. The natural process

1. Men produce sperm as soon as they reach puberty and at any time of the month, but their sperm quality and quantity may dip occasionally, depending to their internal cycle, therefore it is easy to understand that some women can conceive with her partner at the age of 95.

2. The female is born with a finite number of eggs in their ovaries. When females reach the age of puberty, every month some of the eggs in their ovaries mature and are extruded and only one can get into the Fallopian tube for fertility, the rest degenerate and die. When the eggs are less than a

certain number in the ovaries, she enters the menopause state.

III. The long journey

1. The egg (ovum)

If the menstrual cycle is 28 days:

a) In the early stage of the menstrual cycle the levels of estrogen rise. It stimulates the production of FSH(follicle-stimulating hormone) hormones from the pituitary gland and the follicles mature 2 to 3 days before ovulation. As the estrogen levels reaches it's peak, it stimulates the cervix to make cervical mucus which is friendly to the sperm invasion and the pituitary gland releases LH (luteinizing hormone) which triggers ovulation within 48 hours and the egg starts the long journey of travelling through the Fallopian tube toward the uterus.

b) After ovulation, the follicle starts to produce progesterone, the cervical mucus starts to become more sticky and unfriendly day by day to sperm invasion and the cervix opening to the vagina starts to close dramatically. The endometrial lining to the uterus now softens and is ready for the nourishing of the fertilized egg, if pregnancy occurs. Now you know how many experts tell you that the best days to get conceived is 2 days before and after ovulation, because sperm also needs about 2 days to get into the Fallopian tube.

c) If pregnancy does not occur,the corpus luteum creases to produce progesterone and subsequently stop, the soft lining is shed and the woman menstruates. During menstruation the levels of estrogen decrease, which again triggers the increase in FSH and the menstrual cycle starts over again.

2. The sperm

a) After ejaculating into the vagina, if the cervix is closed dramatically or the cervical mucus is hostile to the sperm, there is little change. One of them will make it to Fallopian tube. On the other hand, if the cervix is opened and the cervical mucus is friendly to the sperm, then the sperm will travel toward the opening of the cervix and one of the winners will enter the fallopian tube to fertilize the mature egg and travel toward the uterus for implantation in the soft lining.

b) After one sperm penetrates (by releasing acrosome, then acrosin so it can pass through the tough cumulus oophorus and break through the zone pellucida accordingly) into the egg and the egg is fertilized. It then continuously divides itself into a fetus then into a baby.

B. Overcome Infertility --Understand Female Biological Clock
Here are some important statistics
I. Fertility rate : Out of one hundred healthy couple
1) Only 25% of unprotected sexual intercourse achieve pregnancy during first menstrual cycle
2) There are 20% more for each month after ward (from the 2nd- 11th month)
3) At the 12 months, the rate of conception decreases to 8%

For those couple can not conceive after the 12th months, they are considered as infertility couple.

II. Women are born with finite number of eggs, some women have more, some are less, every month during menstrual cycle approximate thousand of eggs are mature and only one can have the chance to be fertilized by there partner 's sperm.

1) Eggs and Age

Eggs in the ovaries decreases with increasing of age

Assuming there are 150,000 follicle in the ovaries

a) Between the age of 18 - 30 around 120,000 left and this the time of optimal fertility
b) Between the age of 31-37 around 100,000 left and the fertility rate is on the downward trend
c) Between the age 38- 41 around 50,000 left and the infertility rate increases at the fastest rate.
d) Between the age 41- 45 around 10,000 left and you reach the end of fertile.

2). Infertility risk and age
a) In the late of 20 and early 30, 84 % are fertile and only 16 are infertile
b) In the mid 30 - 39 , 75 % are fertile and only 25% are infertile
c) By age 40 the 50% are fertile and 50% are infertile

Assuming the couple are healthy. Remember the older you age, the risk of reproductive organ malfunction also increase including endometriosis and fibroid.

III. Some unfertilized women and men sometimes ago are fertilizing, because of what ever reasons.

Here are most common reasons

1. Persuade a personal career
2. Try to be financial stability before having children
3. Too young to be a parent, raising a child needs efforts, time and money.
4. Enjoy the couple childless years before committing
5. Etc.

Most of women delay to conceive by taking contraceptive pill or condom or other methods to prevent unwanted pregnancy. Unfortunately, by the time they think that they are ready to have children, they are in their mid thirty, their period now becomes irregular (may be caused by withdrawal symptoms from years of taking contraceptive pill) and the risk of infertility is high according to the statistics.

Since our body need at least six months to adjust to the effects of withdrawal medicine, some women may take longer and some may never see their period coming back again. Statistic show that if a couple decide to have children and not conceive within 12 months, it may cause unnecessary stress which may make conception even more difficult. Therefore, planning yourself and if you want to have children, have it as early as possible. Otherwise, please consult with your doctor and aware that there are many type of treatment in case you are infertility.

C. **Understand Male Biological Clock**
Even though the sperm in the male reproductive organ do not change much, the quality and quantity of sperm may be reduced by low levels of testosterone due to ageing. Therefore, you can see why a couple in their late 20's is easier to conceive than a couple with a wife in her 20's and a husband at the age of 40 and more. Study shows that the odds of male fertility rate decreases at an alarming rate of 11% every year and the chance for his partner to conceive declines even further.

According to the study of European Society of Human Reproduction and Embryology, the rate of miscarriage also increases substantially when the father was over the age of 35.
1. Nearly 17 percent if the father was over 34 years old.
2. Around 20 percent if the father was between the ages of 35 and 39.
3. Over 32 percent if the father was older than 44.

Most couple delay unwanted conception by having the female partner take contraceptive pill or by using condoms, or other methods. Unfortunately, by the time they think that they are ready to have children, they are in their mid thirties and according to the above statistics, the rate of fertility is low and the risk of miscarriage is increased substantially, not counting the risk

of giving birth to a child with a defection, including chromosomal abnormalities. Like an old car, no matter how much money which you spend each year to fix it, it will never work like when it was new.

It is wise for a couple to conceive no later then the age of late 20's and early 30's to prevent any unnecessary stress caused by infertility within 12 months after they decide to have a baby.

D. Causes Of Infertility

Immunity Causes of Infertility

I. Definition

Malfunction of immune system interferes with the reproductive processes including the inflammation to cells. These natural processes are vital for preparation of ovulation, implantation of a embryo (malfunction of immune system may cause abnormal endometrial lining) and production of sperm quality and quantity (Malfunction of immune system may cause antibody attack his own sperm), etc.

II. How immune system causes infertility

1. Sperm agglutination

Sperm agglutination is a condition in which sperms clumping together due to infection or antibody reaction because of immune system attacking the sperm thereby, reducing the sperm ability to fertilize the egg and increasing the risk of infection.

2. Testicular injure

Testicle injure caused by what ever reason may increase the risk of immune system attacking the man's sperm due to inflammation and infection.

3. Testicular cancer

Testicular cancer is defined as abnormal cells growth caused by inability of immune system failure to regulate cells duplication, become cancerous in the testicle leading to poor sperm count and decreasing the risk of fertility. Researchers believe men with poor quality of sperm production is considered as high risk to develop testicle cancer than others who do not.

4. Antisperm antibody

Antibody is an chemical made by our body to help the immune system to identify foreign invasion such as bacteria and virus. In case of anti sperm antibody, the immune system attacks fetus and the sperm which interferes the sperm quality, movement and sperm cervical invasion resulting in increasing the risk of infertility for women and men alike.

5. Pyospermia

Pyospermia is condition in which high levels of white blood cell count exists in the sperm. It is caused by infection of sexual transmitted disease somewhere in the body. Sometimse such infection may cause the immune system recognizes the sperm as an invader and kill it.

6 Aniphospholipid antibody
It is defined as a condition in which a class of protein attacks an early development of pregnancy.

8. Antinuclear antibody
Antinuclear antibody is antibody directed against contents of the cell nucleus leading to miscarriage caused by immunity disorder.

Ejaculation Causes of Infertility

I. Definition
Ejaculation is a natural process of the male reproductive organs, it is defined as ejecting of semen from a penis in the final stage sexual intercourse or sexual stimulation. It is vital component and necessary step for natural conception.

II. Ejaculation causes of infertility
1. Premature ejaculation
Premature ejaculation is defined as persistent or recurrent ejaculation with minimum stimulation before, during or shortly after vagina penetration against the person wish. Most men with premature ejaculation have a weak yang or yi kidney leading to lower quality and quantity sperm count resulting in increasing the risk of infertility.

2. Delayed ejaculation
Delayed ejaculation is a medical condition in which a male is unable to ejaculate, either during intercourse or with manual stimulation in the presence of a partner. It is caused by psychological and physical problem including less interest in sex with his partner, sex is sinful, medication and nerve damage to the spinal cord.

3. Retrograde ejaculation
Retrograde ejaculation is caused abnormal function of the sphincter muscle at the base of the bladder. During the ejaculation, the sperm travel backward into the bladder instead to the open of the penis head causing infection to the reproductive organs, including the bladder thereby, no seminal fluid emerges from the penis head.

4. Anejaculation

Anejaculation is defined as inability to ejaculate caused by psychological or physical problem including sexual inhibition, nervous system malfunction or medication.

Recommended Reading
Increase Sperm Count Naturally
With Male Fertility Success, No Drugs,
Surgery Or Humiliating Medical Procedures

Lifestyle Causes of Infertility

1. Unhealthy diet

a) Unsaturated fat and trans fat

Intake of high levels of saturated fat and trans fat not only cause high levels of cholesterol in the bloodstream leading to heart disease and strokes but also decreases the liver in fat and protein metabolism and blood flow to the reproductive organs causing hormone imbalance resulting in disrupting the menstrual cycle in women and increasing the risk o ferectile dysfunction in men.

b) Caffeine

Moderate intake of caffeine does not causes either infertility or miscarry, but over dose of caffeine liking drinking a lot of coffee will increase the risk of infertility and miscarry because caffeine is stimulant causing over production of certain hormones which affect ovulation and hamper conception.

c) Alcohol

Moderate drinking helps to improve blood circulation to the reproductive organ leading to increase the chance of fertility of men and women alike. Excessive drinking in women may increase the production of hormone prolactin which interferes which the ovulation leading to infertility. In men, alcohol interferes with production of testosterone leading low quality of sperm and sexual desire causing male infertility.

2. Biking

Biking may cause the scrotum problem including low sperm count. It is advice for people who like to bike in off road mountain to take precaution to avoid swelling, pain or damaging the reproductive system leading to infertility.

3. Exercise

While rigid exercise reduces the chance of fertility because it interferes with the production of sperm and egg as well as decreasing the brain message to test and ovaries, moderate exercise improves it. It not only decreases the blood flow to the reproductive organs, but also signals the false message to the nervous system to divert all energy to organs other than reproductive system disrupting the flow of qi in the abdomen and

stopping ovulation resulting in increasing the risk of infertility.

4. Hot bath and Sun bath
The male body temperature is important for sperm production, it only needs a temperature slight below the core body temperature to interfere with the function of the reproductive system . Hot tubs, saunas, steam room or working in the high heat environment may decrease quality and quantity of sperm resulting in increasing the risk of infertility.

5. Herbs Abuse
Some herbs may be helpful to improve fertility by establishing normal hormonal functioning, nourishing & toning the uterus, reducing stress and relaxing the nervous system such as red clover, nettle leave, dong quai, etc. Others may increase the risk of infertility such as St john wort, please disclose all herbs taken to your herbalist or doctor if you are on infertility treatment.

6. Tight underware
There may be no proof that underware causes infertility, but researchers believe that tight cloth causes high temperature, thereby reducing the sperm production.

7. Weight
a) Substantial weight loss interferes the production of the gonadotropin-releasing hormone which is vital for sperm an eggs development.
b)Over weight or obesity effects hormone signals and increases the insulin levels leading to over production of male hormone from ovaries which interferes with ovaries in eggs releasing.

6. Drugs and smoking
Drugs are high toxic and addictive, they are not only harmful to the nervous system and increase the risk of arteries blockage and lung diseases, bot also interferes the natural processes of the reproductive system including hormone imbalance, low the quality and sperm count.

Psycological Causes of Infertility

1. Slimness effect
The obsession with slimness at all cost may interferes the production of the gonadotropin-releasing hormone which not only causes delay or abnormal sperm and eggs development but also interferes with primitive process of natural selection in the brain leading to absence of period as blood redirected to other organs need causing nutrients deficiency.

2. Failure to conceive
Many couple after several tries to conceive but fail or just having a

miscarriage, feel dramatic pressure and stress which cause hormone imbalance and interfere with the production of sperm in men and normal cycle in women resulting in increasing the risk of inability to conceive.

3. Stress
Stress interferes with hormone production (increasing the secretion of adrenaline hormone that suppress the production of progesterone which is necessary for the soften of uterine lining for fertilized egg implantation) increasing the risk of absence of ovulation leading to infertility in women. In men, it causes low sperm count and reduce quality of sperm.

4. Depression
Depression increases the production of certain hormone in the nervous system and the glands leading to hormone imbalance and interferes the normal procedure of menstrual cycles in women and lowering sperm count in men, leading to infertility.

5. Medical problem
Some medication may have side effects leading to nervous tension and the risk of malfunction of some organs in the the body such as hypertension medication has an effect to kidney function, causing psychological problem such as stress and anxiety.

Cervical Causes of Infertility

I. Definition
Cervix is a lower neck of uterus, it joins on top with the uterus and the bottom with the vagina. It normally is hostile to the sperm with thick and sticky mucus and only produces sperm friendly mucus a few day before ovulation to invite sperm invasion for conception.

II. Cervical causes of infertility
1. Cervical damage
Damage to cervix caused by medical surgery such as several abortions may lead to abnormal function of cervix such as not open for sperm invasion or closed to allow pregnancy to proceed to term resulting in miscarry and infertility.

2. Cervical stenosis
Cervical stenosis is defined as a blockage or narrowing of the cervical canal, it is caused by birth defect or medical surgery thereby, limiting the chance of sperm uterine invasion causing infertility.

3. Cervicitis
Cervicitis is defined as a medical condition caused by inflammation or infection to the cervix leading to abnormal production of cervical mucus

and the risk of infertility.

4. Cervical problems
Cervical problems are caused by abnormal formation of cervix at birth or after medical surgery leading to interferes with sperm invasion through the cervix and into the uterus as resulting of thicken mucus or mucus hostile to sperm.
a) Congenital problem
The abnormal formation of cervix is caused by medication taking by the mother during pregnancy resulting in effecting the mucus production thereby, increasing the risk of infertility and miscarry.

b) Medical problem
Damage to cervix is caused by medical surgery such as several abortions leading to abnormal function of cervix such as not open for sperm invasion or closed to allow pregnancy to proceed to term resulting in miscarry and infertility.

c) Hormone problem
It is caused by not enough estrogen to stimulate the production of cervical mucus which are friendly to sperm invasion.

Endometrial Lining Causes of Infertility

I. Definition
The endometrium is the inner membrane of the mammalian uterus. It helps to support the fertilized egg. Under influence of the high levels of estrogen at the early part of the menstrual cycle the endometrial lining become thick then become soft once ovulation occurs when progesterone is produced with high amount.

II. Endometrial lining Causes of infertility
1. Adenomyosis
Adenomyosis happens most likely in the late of woman life and who has had several pregnancy. It is classified as a medical condition of endometrial cell grows within the muscular walls of the uterus causing symptoms similar to those of endometriosis. It may interfere with the embryo implantation if the uterine tissue extends through entire region of the uterine wall resulting in infertility and miscarriage.

2. Endometrial hyperplasia
Endometrial hyperplasia is defined as overgrowth or thickening of the uterus lining as resulting of high levels of estrogen and insufficient levels by of progesterone leading miss ovulation and infertility.

3. Endometriosis
Endometriosis is defined as cells of endometrium grow somewhere else

other than in the endometrium. Normally, endometriosis not travel far but around the uterus region. It interferes with the ovulation and embryo implantation leading to infertility and miscarriage.

4. Endometritis
Endometritis is defined as infection or inflammation of the uterine lining caused by pelvic infection or sexual transmitting diseases leading to miscarriage for pregnant women.

Environment Causes of Infertility

1. Workplace hazards
workplace containing high amount of hazardous chemicals may disrupt the processes of reproductive organs leading to eggs and sperm damaging, conception difficult, lower sexual desire and other reproductive diseases.

2. Pesticides
Pesticides is one of the environment toxins which causes damage or interferes with reproductive processes including hormone imbalance (high levels of estrogen and low levels of progesterone, interrupt ovulation, lower sperm count, sperm movement, etc.) leading to conception difficulty.

3. Environment factors
Expose yourself in certain chemical environment may interfere the body hormone production leading to reproductive abnormal function resulting in increasing the risk of birth defect, stillborn, infertility and miscarriage.

4. Xanoestrogen
Xanoestrogen is also known as environment estrogen acts as estrogen, it can remain in the body for a long time and block and interfere with body's natural normal functions leading to many disorders including low sperm count, abnormal sperm production and movement in men and abnormal overgrowth of vagina lining, premature breast growth in women and infertility in both.

5. Chemicals
Chemicals such as DDT, PCP, furans and men made estrogen reduce the sperm quality and lower the sperm count in men leading to infertility. In women, such chemicals may cause child defect and miscarry because of it's toxic effect.

Birth Defects Causes of Infertility

I. Definition
A birth defect is a problem that happens while a baby is developing in the mother's body due to injure or gene defects. Some of them can be treated by medical attention, some can not.

II. Birth defect causes infertility

1. Congenital adrenal hyperplasia

As a genetic passing through condition, congenital adrenal hyperplasia is present at birth and can affect both boy and girl alike. It is caused the lack an enzyme which is vital for the adrenal gland to make the hormones cortisol and aldosterone resulting in higher than normal testosterone hormone in the body. While girl is born with muscular appearance with high levels of testosterone hormone, it leads to abnormal menstrual period and causing infertility. The disease may be difficult to diagnosis in boy, but it may interfere with the growth and normal function of the reproductive organ including the test and penis leading to infertility.

2. Congenital abnormality

Abnormalities present at birth may interfere with the fertility and carry the pregnancy to term.

a) In men

Epididymis, crytorchidism, etc.

b) In women

Abnormal formation of cervix, cervical canal, septate uterus, etc

3. Crytorchidism

Crytorchilism also known as undesenced testicles, It uses to happen to premature child. If it is not repaired by age six, it may causespermanent infertility because of no sperm in the semen.

4. Cystic fibrosis

It is a genetic disease present at birth. Men with cystic fibroisis was born with absence of the vas deferens where it connect the testicle and epididymis to the ejaculating duct leading to infertility as resulting of impossible for sperm to pass through the penis.

5. Epipadas

Epipadas is a type of abnormal formation of the penis at birth in which the urethra ends in an opening on the upper aspect of the penis. Men with epipadas have normal sperm production, but the ejaculating sperm can not deposit to the cervix interfering with sexual erection and leading to infertility.

6. Chromosomes

Normally men carry X and Y chromosome and women carry X chromosome, study show infertility may be caused by genetic abnormality including abnormality part of Y chromosome and loss of large part of Y chromosome leading to lower sperm count and interfering with fertility.

7. Sepate uterus

Sepate uterus is a condition in which the uterus is divided by septum into separate half. Since the uterus is divided, each half has little space for the fetus to grow. It may not interferes with implantation of fertilized eggs but the pregnancy may end with premature birth of miscarriage.

8. Testicle feminization
It is caused by enzymatic defect. Men with testicle feminization look like a women but have both X any Y chromosomes and fail to response to the male hormone testosterone.

Syndrome Causes of Infertility

I. Definition
Syndrome is defined as the aggregate of symptoms and signs associated with series of operations, events, or steps which lead to disease due to unhealthy or unwholesome process.

II. Types of syndrome cause infertility
1. Anticardiolipin antibody syndrome
Antiphospholipid antibody syndrome is a disorder of coagulation, which causes blood clots. Women with high levels of anticardiolipin antibodies has a high risk of miscarriage. There are several types of such antibodies but the Ig G type is the one that correlates the most with pregnancy loss. It is said that intakes of low dose of aspirin or blood thinner will help to avert the problem. Make sure you check your antibody every eight weeks to prevent early miscarry.

2. Rokitansky syndrome
An inherit of birth defect with a malformation of vagina and absence of uterus.

3. Polycystic ovary syndrome (PCOS)
PCOS is a condition associated with the irregular ovulation leading to excessive building up the uterine lining and increasing the risk of infertility. Women with PCOS are found to have high levels of testosterone and high circulation of levels of insulin.

4. Klinefelter's syndrome
Genetic defect of male with one chromosome Y and 2 chromosome X leading to hormone imbalance including lack of testosterone. male breast, small testes and interfere with normal sperm production (semen found to have no sperm) causing infertility.

5. Kallmann's syndrome
A malfunction of hypothalamus gland at birth that interferes with

production of gonadotropin-releasing hormone causing delay of puberty.
a) In men, it causes low levels of testosterone resulting of small size penis, cryptorchism leading to infertility because of no sperm during ejaculation.
b) In women, it causes no menstrual period and no egg production.

6. Cushing's syndrome
Cushing's syndrome is a chronic illness caused by over production of cortisol hormone leading to lower sperm production in male and abnormal ovulation in women.

7. Asherman's syndrome
Asherman's syndrome is a condition characterized by the presence of scars within the uterine cavity. It is caused by scars after a D&C is performed on a recently pregnant uterus including a missed or incomplete miscarriage, birth, or elective termination in removing retained products of conception and placental remains causing endometrium inability to response to the estrogen during menstrual cycle leading to infertility.

Hormone Imbalance Causes of Infertility

1. Androgens
Androgen is also an steroid hormone which helps to control the development and maintenance of masculine characteristics. In women, it is necessary in estrogen synthesis, increasing sexual desire and preventing of bone loss, over production of androgen causes male like pattern, irregular menstrual cycle or absence of menstrual cycle leading to infertility. In Men, over production androgen by test causes lower quality of sperm and sperm production leading to male infertility.

2. Hyperthyroidism
It is defined as a condition in which our body produces too much thyroid hormone causing low levels of estrogen which can not trigger the production of LH then ovulation leading to infertility.

3. Hypothyroidism
As oppose to hyperthyroidism, it is defined as a condition in which our body produces very little thyroid hormone leading to irregular ovulation

and increasing production of prolactin causing production of immature eggs from the ovaries resulting in infertility.

4. Luteal phase defect
Luteal phrase is defined as the second half of the menstrual cycle that occurs between ovulation and menstruation. At the beginning of this phrase, after releasing of the egg, the levels of progesterone increase leading to uterine inning thickening to support the implantation of embryo. Luteal phrase defect is caused by uterine inning does not develop properly, thereby does not response to high levels of progesterone stimulation preventing embryo implantation resulting in miscarriage.

5. Low levels of Progesterone
Progesterone is vital for endometrial lining to become soft in helping implantation of fertilized egg, stimulate the production of sperm friendly mucus and open the cervical for sperm invasion. Deficiency of progesterone interferes with those processes leading to infertility as sperm can not enter the Fallopian tube.

6. High levels of Estrogen
Estrogen is vital for starting the women menstrual, but the levels remain high over the cycle will prevent ovulation.

7. Testosterone
Testosterone not only is vital for maintaining penis erection, sexual desire but also helps in healthy sperm production. Unbalance of levels of testosterone in men interferes with those processes leading to erectile dysfunction and abnormal sperm production.

Testicle Causes of Infertility

I. Definition
Testicle which is a sex and endocrine gland that produces sperm and male sex hormones, including the steroid testosterone.

II. Testicle causes of infertility
1. Testicular torsion
testicle torsion is defined as damaging the spermatic cord that interferes with blood vessel which transport blood to the testicles.

2. Testicle feminization
It is caused by enzymatic defect. Men with testicle feminization look like a women have both X any Y chromosomes but fail to response to the male hormone testosterone.

3. Primary testicular failure

The genetic defect that causes malformation of testicles leading to abnormal sperm production resulting in testosterone deficiency and inability to egg fertilizing.

4. Secondary testicular failure
testicle damage caused by exposure to environment toxins, drugs and medication side effects orvaricocele leading to abnormal production of sperm and increasing the risk of infertility.

5.Orchitis
Orchitis is a disease caused by bacteria and virus which infects the men one or both testicles. It may lead to infertility if not treat early.

6. Epipadas
Epipadas is a type of abnormal formation of the penis at birth in which the urethra ends in an opening on the upper aspect of the penis. Men with epipadas have normal sperm production, but the ejaculating is retrograde that interferes with sexual erection and leading to infertility.

7. Epididymitis
Epididymitis is defined as inflammation of epididumis caused by bacteria, sexual transmitting diseases and urinary tract infection leading to infertility if infection spread to testicles.

8. Epididymal obstruction
Epididymis is a tiny tube which attaches to the testicle. Epididymals obstruction is defined as the blockage of the passage of sperm to penis leading to low sperm count and increases the risk of infertility.

Uterine Causes of Infertility

I. Definition
The uterus is female hormone-responsive reproductive sex organ. It is where the fertilized egg implanted and develop to a fetus then to a baby. One end, it is connected to the cervix, the other is connected on both sides to the Fallopian tubes.

II. Uterine causes of infertility
1. Bicornate uterus
Bicornate uterus also known as heart-shaped uterus caused by abnormal formation of mullerrian duct, thereby increasing the risk of premature born baby or miscarry due to small than normal uterus.

2. Fibroid
Fibroid is benign tumour which grows in, on or outside of the wall of the

uterus. If it grows big enough, it may interfere with the implantation of embryo in the uterus leading to premature delivery, miscarriage and increasing the risk of infertility if they grow near the opening of both Fallopian tubes and distort the shape of uterine captivity.

3. Sepate uterus
Sepate uterus is a condition in which the uterus is divided by septum into separate half. Since the uterus is divided, each half has little space for the fetus to grow. It may not interferes with implantation of fertilized eggs but the pregnancy may end with premature birth of miscarriage.

4. Unicornuate uterus
Unicornuate uterus is a malforming uterus which is formed from one only of the paired mullerian ducts while the other mullerian duct does not develop. Women with unicornuate uterus may never be diagnosis and may be possible to get pregnant but the reproductive failure is high.

5. Uterine factors
Uterine problem such as endometriosis may increase the risk of infertility because it interferes with the implantation of fertilized egg into the uterus.

Vaginal Causes of Infertility

I. Definition
Vagina is defined as the lower part of the female reproductive tract, a moist canal in female fibromuscular tubular tract extending from the uterus to the exterior of the body .

II. Vagina causes of infertility
1. Vaginitis
It is caused by infection, low levels of estrogen or allergy leading to abnormal vagina discharge. In case of frequent vaginitis, it is caused by adhesion in the pelvic region or tubal blockage leading to infertility and reducing the sperm invasion.

2. Vaginosis
It is caused by over production of certain bacteria in the vagina area as resulting of infection causing unbalance of bacteria in the region.

3. Vaginal adenosis
Vaginal adenosis is a genetic defect caused by the mother taking medication diethylstinesterol during pregnancy leading to abnormal vagina and increasing the risk of cervical cancer.

4. Rokitansky syndrome

An genetic passing through birth defect with a malformation of vagina and absence of uterus.

5. Lubricant
Lubricant used during sexual intercourse to prevent vagina irritation and pain may cause toxic effect to sperm. Using water soluble lubricant can prevent that to happen if fertility is a concern.

6. Douching
Douching may be used to prevent infection caused by bacteria in or around the women vagina, but it also toxic to the sperm and affect the cervical mucus, therefore women who try to get pregnant should avoid douching all together.

Sexually Transmitted Diseases Causes of Infertility

I. Definition
Sexually transmitted disease (STD), also known as sexually transmitted infection (STI), is an illness caused by the transmission between humans through sexual contact including vaginal intercourse, oral sex, and anal sex.

II. Sexually transmitted diseases causes of infertility.
1. Chlamydia
Chlamydia is also known as Chlamydia pneumoniae. It is a type of organism that is an STD that leads to infertility. In men, it causes infection leading to urethritis and interferes with ejaculation. In women, it may damage the Follopian tube.

2. Epididymitis
Epididymitis is defined as the inflammation of the epididumis caused by bacteria. It is a urinary tract infection that leads to infertility if infection spreads to the testicles.

3. Gonorrhea
Gonorrhea is an STD caused by the bacteria Neisseria gonococcus that leads to epididymitis infection and inflammation of the uterus in men, and the Fallopian tube in women. It results in tubal damage causing infertility and miscarriage.

4. Pyospermia
Pyospermia is a condition in which high levels of white blood cells exist in the sperm. It is caused by the infection of a STD somewhere in the body. Sometimes such infection may cause the immune system recognizing the sperm as an invader and killing it.

5. Ureaplasma urealyticum
Ureaplasia urealyticum is a bacterium belonging to the family Mycoplasmataceae. It is a type of infectious bacteria with no symptoms. It is sexually transmitted between partners and interferes with the reproductive processes including tubal disease, decreases sperm movement and the quality causing infertility.

Ovarian Causes of Infertility

I. Definition
The ovary is female reproductive organ where the eggs mature and extruded to the Fallopian tubes, it is part of the vertebrate female reproductive system.

II. Ovarian causes of infertility
1. Ovarian resistance
The term used to define the inability of ovaries to response to FSH stimulation, thereby no developing follicle. The exact cause is still unknown, some researchers believe it is caused deficiency of FSH and LH receptors in the ovary, the presence of antibodies to gonadotropin receptors, or a post receptor defect.

2. Ovarian failure
Ovarian failure is a condition defined as loss of ovarian function for female under age of 40 (early menopause) caused by low levels of estrogen and high levels of FSH hormone.

3. Ovarian dygenesis
It is caused by the second X chromosome defective at birth leading to sterility.

4. Chocolate cyst
Chocolate cyst also known as endometrioma, caused by endometrial adhesion and implants attached to the ovaries leading to abnormal function of ovaries and interfering with production of mature eggs.

5. Ovarian pregnancy
An pregnancy occurs within the ovary. It is caused by matured age being fertilized inside of the ovaries leading to miscarriage.

6. Poor egg quality
The cause of poor egg quality still unknown but researches believe it may be caused by genetic passing through from generation to generation, poor lifestyle, drugs or medication side effects leading to abnormal eggs producing processes of ovaries resulting in increasing the risk of miscarriage and birth defect.

Ectopic Pregnancy Causes of Infertility

I. Definition
Abnormal egg implantation is defined as fertilized egg implanted in any reproductive organ other then the endometrial lining in the uterus. It is most likely happened to women with irregular menstrual cycle, abnormal cells adhesion and implants which blocks the movement of the eggs toward the uterus or women with age over 35.

II. Abnormal egg implantation causes of infertility.
1. Ovarian pregnancy
An pregnancy which occurs within the ovary. It is caused by matured age being fertilized inside of the ovaries leading to miscarriage. It may be caused by inability of ovaries in extruding the mature eggs or medium-sized follicles exist around the rim of the ovaries blocking the function of ovarian extrusion .

2. Cornual pregnancy or Fallopian tube blockage
The Fallopian is the tube that helps to retrieve egg from the ovaries and coax it toward the uterus and oncoming sperm. If any adhesion or implants restrict the movement of the egg or sperm, causing tube implantation in the Fallopian.

3. Cervical pregnancy
Cervical pregnancy is a condition in which the pregnancy implants in the lining of the endocervical canal, causing abnormal vagina bleeding, lower abdominal pain and cramps leading to miscarriage.

4. Peritoneum pregnancy
a) Primary peritoneum pregnancy is extremely rare but it happens. it is caused by the fertilized egg escape from the Fallopian tube and implants in the abnormal cavity leading to heavy bleeding, miscarriage and life threatening.
b) Secondary peritoneum pregnancy
Secondary abdominal pregnancy is considered more common, it is caused by either tubal abortion or rupture resulting in implantation within abdominal cavity.

5. Interstitial pregnancies
Interstitial pregnancies is very rare compared to other ectopic pregnancy.It is defined as the implantation of the fertilized egg in the interstitial region leading to amenorrhea, pain, and vaginal bleeding. It is caused by abdominal surgery, a ruptured appendix, exposure to diethylstilbesterol and uterine developmental abnormality.

6. Anembryonic pregnancy

Anembryonic pregnancy also known as blighted ovum, it happens when a fertilized egg attached itself to the uterine wall, but the embryo does not develop. Woman with anembryonic pregnancy
also experiencing the hormone change likes other normal pregnancy and it won't be discovered until ultra sound is performed.

Irregular Cells Growth Causes of Infertility

1. Chocolate cyst
chocolate cyst also known as endometrioma, caused by endometrial adhesion and implants attached to the ovaries leading to abnormal function of ovaries and interfering with production of mature eggs.

2. Adenomyosis
Adenomyosis happens most likely in the late of woman life and who has had several pregnancy. It is classified as a medical condition of endometrial cell grows within the muscular walls of the uterus causing symptoms similar to those of endometriosis. It may interferes with the embryo implantation if the uterine tissue extends through entire region of the uterine wall resulting in miscarriage.

3. Cervical polyp
A cervical polyp is a benign polyp or tumour on the surface of the cervical canal, it is caused ny infection, inflammation or abnormal response to high levels of estrogen leading to abnormal bleeding, if not treated, it will gradually grow up and obstruct the cervical opening leading to fertility and miscarry.

4. Endometriosis
Endometriosis is defined as cells of endometrium grow somewhere else other than in the endometrium. Normally, endoemtriosis not travel far but around the uterus region. It interferes with the ovulation and embryo implantation leading to infertility and miscarriage.

5. Fibroids
Fibroids are benign tumours that grow in, on or outside of the wall of the uterus. If it grows big enough, it may interfere with the implantation of embryo in the uterus leading to premature delivery and miscarriage and increasing the risk of infertility if they grow near the opening of both Fallopian tubes and distort the shape of uterine cavity.

6. Hyperplasia without atypical cells
Hyperplasia without atypical cells is a condition of abnormal cell growth in the endometrium. It is caused by prolong high levels of environment estrogen leading to infertility. It is said that women who are over weight by

20-50 pounds and women who are on unopposed estrogen hormone therapy are high risk in developing hyperplasia without atypical cells.

7. Peyronie's disease
Peyronie's disease is also known as induratio penis plastica, it is a condition that nodules or lumps develop in the penis causing cause a restriction and prevent the penis from expanding in that area leading to inability in achieving or maintaining an erection.

8. Polycystic ovaries
A condition of many medium-sized follicles exist around the rim of the ovaries, it can be symptoms of PCOS.

9. Spermatocele
Spermatocele is a benign cyst in the scrotum. it effects affecting as many as 3 in 10 American men and does not cause infertility or require treatment if it is small.

10. Testicular cancer
Testicular cancer is defined as abnormal cells growth become cancerous in the testicle. The cause is unknown but researchers believe men with poor quality of sperm production is considered as high risk to develop testicle cancer than other who do not.

Medication Causes of Infertility

1. Blood pressure medication
Medication used to treat high blood pressure may interferes with kidney function in controlling sexual desire and sexual function in sperm ejaculation leading to infertility. Changing the medicine or dose will decrease the risk of kidney damage and reverse the effects.

2. Dietthylstilbestrol (DES)
Dietthylstilbestrol is one the medicine used in the 50 -60 to prevent miscarriage. women intake of above medicine increases the risk of deformities to the child reproductive organs including abnormal cervix, uterus and blockage of the des deferens, etc.

3. Other medication
Medications
Some medication used can be effected the reproductive organs
a) In women
Medication disrupts the women reproductive cycle including antibiotics (interfering with production of cervical mucus), tranquilizers (increasing

the levels of prolactin), corisone (causing irregular menstrual cycle), etc.
b) In men
Medication also cause lower sperm count, abnormal function of sperm cell production and interferes the normal production of FSH and LH (methotrexate, salazopyrine, etc.) Other such as corticosteroids, tranquilizers, narcotics, etc. cause impotency and ejaculation problem.

4. Morphine
Like other drugs, morphine interferes with the gonad-releasing hormone secretion, thus reducing the levels of testosterone in men leading to low sperm count, sperm movement and sperm production.

5. Antidepressant
Antidepressant may helpful to calm the nervous system, long term intake may impair the reproductive organs in fertility function by causing damage to the DNA in their sperm, leading to abnormal sperm production including low sperm count and round head sperm.

Medical Condition Causes of Infertility

1. Diabetes
Diabetes is defined as inability to produce insulin by pancreas or inability of cells to use insulin efficiently. It may clot blood vessel as resulting of high levels of glucose in the bloodstream leading to impotence and retrograde ejaculation in men. In women with insulin resistant, high levels of insulin in the bloodstream interferes with normal function of menstrual cycle as resulting hormone imbalance leading to infertility.

2. Nervous disorder
Nervous disorder increases the production of certain hormone in the nervous system and the glands leading to hormone imbalance and interfering with the normal procedure of menstrual cycles in women and lowering sperm count in men, leading to infertility.

3. Erectile dysfunction
Erectile dysfunction also known as impotence, is defined as the repeated or

persistent inability to get or keep an erection firm enough for sexual intercourse over period of at least 3 months. It is caused by not enough blood flowing in and fill the spaces of the veins and arteries as resulting of psychological factors, hormone imbalance, heart diseases, diabetes, kidney disease, chronic alcoholism, etc. leading to infertility.

4. Hypogonadotropic hypopituitarism
It is types of disease which interferes with the production of LH and FSH of the pituitary gland causing ovulation problem in women and low sperm count in men.

5. Immune disorder
Malfunction of immune system interferes with the reproductive process including the inflammation to cells which are vital involved in the processes of ovulation , preparation for implantation of a embryo (malfunction of endometrial lining) and sperm quality ad quantity (antibody attack his own sperm).

6.Pelvic inflammation disease (PID)
PID is defined as a condition of an acute infection in the pelvic caused by sexual transmitted diseases leading to infertility if the scar forming in the Fallopian tube that blocks the tube completely.

7. Pituitary tumor
Pituitary tumor is defined as a condition of benign overgrowth of cells in the pituitary gland causing abnormal function in secreting hormone leading to over production of growth , thyroid-stimulating, prolactin hormones, etc. that disrupt the normal processes of the reproductive organs thereby, increasing the risk of infertility in both men and women.

8. Testicular cancer
Testicular cancer is defined as abnormal cells growth become cancerous in the testicle. The cause is unknown but researchers believe men with poor quality of sperm production is considered as high risk to develop testicle cancer than others who do not.

9. Varicocele
Varicocele is an abnormal enlargement of the vein in the scrotumcausing blood stagnation and leading to poor sperm production and sperm count.

Spermic Causes of Infertility

1. Teraospermia
Teratospermia or teratozoospermia is a condition in which the sperm is mature abnormally such as th round headed spermatozoa affecting fertility

in males by reducing sperm mobility and preventing sperm from penetrating into the egg.

2. Sperm agglutination
Sperm agglutination is a condition in which sperm clumping together due to infection or antibody reactions, thereby reducing the sperm's ability to fertilize egg and increasing the risk of infection.

3. Immature sperm
Sperm is manufactured in the testicles which are located in the scrotum. Immature sperm cells start to develop and grow in the seminiferous tubules then pass into the epididymis, where the sperm are stored and continue to grow and gain the ability to swim.

4. Necrozoospermia
Necrozoospermia is defined as the condition of totally absent sperm movement. The cause of necrozoospermia is still unknown. Some suggest it may be caused by a birth defect or obstructive pathology including hydrocoele, and varicocoele.

5. Oligospermia
Oligospermia is defined as a condition of having a low number of sperm during ejaculation of the male. It is caused by abnormal enlargement of the vein, sperm duct infection, or abnormal functioning of the pituitary gland in hormone secretion for production of sperm.

6. Klinefelter's syndrome
This is a genetic defect of the male with one Y chromosome and 2 X chromosomes leading to hormone imbalance, including lack of testosterone. Male breast, small testes and the interference with normal sperm production (semen found to have no sperm) causing infertility.

7. Germ cell phasia
As we known, the men's testicle contains germ cells for sperm production. Germ cell phasia is a genetic disease in men in which testicles have no germ cells thus are unable to produce sperm.

8. Epididymal obstruction
Epididymis is a tiny tube which attaches to the testicle. Epididymals obstruction is defined as the blockage of the passage of sperm to the penis leading to low sperm count and increases the risk of infertility

The Unexplained Causes of Infertility

1. Abnormal eggs

The egg produced by the ovaries may be good quality, but for what ever reason the modern technology fails to detect the deformed structure or chromosomal abnormalities in the egg leading to inability for the egg to be fertilized by the sperm.

2. Luteinized unruptured follicle (LUF) syndrome
There are possible that the matured egg produced by the ovaries without being released and trapped inside the unbroken corpus luteum.

3. Immune system disorder
It may be caused by abnormal immune function by which the immune system recognizes the sperm from the male partner as a foreign invasion and kill them or caused by immune system coating the mature egg, thereby preventing the sperm to penetrate it.

4. Infection and inflammation
Sexual transmitted diseases such as chlamydia may be presented in the women or the men body, but the modern technology can not detect it.

5. Sperm malfunction
In this case the egg is normal, but for what ever reason, the sperm can not penetrate it.

6. Medical condition
Some mild medical condition in the women reproductive organ such as mild case of endometriosis may interfere the implantation of egg in the uterine lining, but hard for medical technology to detect it.

Since there are hundreds (may be thousand) of molecular and biochemical events that have to happen orderly and perfectly in order for the couple to conceive, unexplained causes of infertility may be one of the reason which drive many couples to seek help from alternative medicine.

E. What Exhibit The Causes Of Infertility

What Exhibits Erectile Dysfunction To Cause of Infertility

I. Definition
Erectile dysfunction also known as impotence, is defined as the repeated or persistent inability to get or keep an erection firm enough for sexual intercourse over period of at least 3 months. It is caused by not enough blood flowing in and fill the spaces of the veins and arteries and hormone imbalance as resulting of psychological factors, heart diseases, diabetes, kidney disease, chronic alcoholism, etc. leading to infertility.

II. Causes of erectile dysfunction
1. Diabetes

Diabetes is defined as inability to produce insulin by pancreas or inability of cells to use insulin efficiently. It may cause clot to blood vessel as resulting of high levels of glucose in the bloodstream leading to impotence and retrograde ejaculation in men.

2. Depression
Depression increases the production of certain hormone in the nervous system and the glands leading to hormone imbalance and interfering the normal function of hormone production such as low levels of testosterone and sexual desire leading to erectile dysfunction and lowering sperm count in men.

3. Emotion stress
Since emotion stress effects the hormones in our body. Negative stress increase the risk of over production of certain hormones including serotonin and adrenaline which interfering with normal function of the reproductive system and lower the sexual for men resulting in increasing the risk of erectile dysfunction and decreasing the chance of fertility.

4. Xanoestrogen
Xanoestrogen is also known as environment estrogen acts as estrogen. it can remain in the body for a long time and blocking and interfering with reproductive system natural functions leading to many disorders including erectile dysfunction, low sperm count, abnormal sperm production and movement in men.

5. Environment factors
Expose yourself in certain chemical environment may interfere the body hormone production leading to reproductive abnormal function resulting in increasing the risk of hormone imbalance and sexual disorder.

6. Drugs
Drugs are high toxic and addictive, they are not only harmful to the nervous system but also interfere the natural processes of the reproductive system including low levels of testosterone leading erectile dysfunction and lower the quality and sperm count, movement of sperm.

What Exhibits Hormone Imbalance to Cause Infertility

1. Aging
a) In men
When the men get older, the levels of testosterone start to drop and the levels of the by-product prolactin of testosterone of men increases, stimulating the production of the enzyme 5-alpha reductase that causes the conversion of testosterone to gihydro-testosteronescausing leading to many

problems such as erectile and abnormal sperm production.
b) In women
At the age of 35 or older, some women start to enter the state of peri menopause, leading to irregular menstrual cycle as resulting of low levels of estrogen resulting ovarian inability to response to the FSH hormone and produce mature eggs.

2. Lifestyle
A good living lifestyle may be helpful for preventing diseases and preserve health, but times the good living lifestyle also a cause of hormone imbalance. Some women with unexplained infertility may be caused by exercise such as running or joking 10 km a day, playing tennis everyday which stimulate the brain primitive function causing hormone imbalance and absence of menstrual cycle because there are so much energy have been spent on daily sport there are nothing left for the function to produce eggs or sperm.

3. Thyroid diseases
a) Hyperthyroidism
It is defined as a condition in which our body produces too much thyroid hormone causing low levels of estrogen which can not trigger the production of LH then ovulation leading to infertility.
b) Hypothyroidism
Hypothyroisim is defined as very little thyroid hormone is produced by the thyroid gland leading to irregular ovulation and increasing production of prolactin causing production of immature eggs.

4. Heredity
Congenital adrenal hyperplasia which presents at birth, it affect both boy and girl alike. It efects adrenal gland to make the hormones cortisol and aldosterone leading to high levels of testosterone hormone.

5. Sluggish liver
Liver is important for regulating the balance of essential fatty acid. Our daily today contains more meats and high levels of saturated fat and trans fat, which interfere the liver function and leading to over production of certain hormone, disrupting the normal menstrual cycles and normal function of male reproductive organ such as erectile dysfunction.

6. Klinefelter's syndrome
Genetic male defect with one chormocome Y and 2 chromosome X. It causes levels of testosterone hormone leading to female pattern including enlarged breast, small penis and normal sperm production.

What Exhibits Testicle Problem to Cause Infertility

1. Biking
Biking may be a healthy sport but biking off the mountain road it may injure the penis and cause the scrotum problem including lower sperm production and interfering with natural selection in the body. It is advice for people to take precaution to avoid swelling, pain or damaging the reproductive system.

2. Immune system
Immune system plays an important role in fighting the forming of free radical and foreign invasion such as bacteria and virus. Any infection or allergic reaction in the body may cause over production of antibody leading to immune system attacking fetus and the sperm which interferes the sperm quality, movement and sperm cervical invasion.

3. Aspirin overdose
It is said that small dose of aspirin help to increase fertility in women by increasing the coagulant effects and decreasing the risk of antibody attacking the fetus. Over dose of aspirin may damage the stomach lining in absorbing vital vitamins and minerals leading to infertility and birth defect.

4. Medical condition
Medical condition such as azoospermia which reduces the level of sperm in his semen caused by blocking of the reproductive tract including blocking of the epididymis, seminal vesicles and ejaculation ducts resulting in infertility.

5. Heredity
Epipadas is a type of birth defect in which the urethra ends in an opening on the upper aspect of the penis leading to abnormal ejaculation and interfering with penis erection.

6. Testicular cancer
Testicular cancer is defined as forming of free radicals in the testicle becoming cancerous in the testicle. Study show that men with poor quality and quantity of sperm production is considered as high risk to develop testicle cancer.

7. Testicular enzyme defect
A congenital enzyme defect that interfere with normal process of the testes in sperm production as resulting of inability of the test in responding to hormone stimulation.

What Exhibits Cervical Conditions to Cause Infertility

1. Irregular cells growth
Irregular cells growth or forming of free radicals on the surface of the cervical canal as resulting of infection, inflammation or abnormal response to high levels of estrogen leading to heavy bleeding and obstruct the cervical

opening causing infertility.

2. Birth defects
Cervical problems are caused by abnormal formation of cervix at birth may cause abnormal mucus production which is hostile to sperm invasion
a) Congenital problem
women who is pregnant but do not know that certain types of medication may interfere the cell division in the fetus leading to abnormal formation of cervix to the fetus which effects the mucus production..

b) Medical problem
Several abortions are the leading cause of cervical damage which increases the risk of adhesion in the cervix leading to abnormal function of cervix including cervix not open for sperm invasion or closed to allow pregnancy to proceed to term.

c) Estrogen problem
Women with low levels of estrogen a few days before and after ovulation may cause inability of cervix in production of cervical mucus which are friendly to sperm invasion.

3. Infection and inflammation
Women who have frequent cervicitis as resulting of inflammation or infection to the cervix may cause abnormal production of cervical mucus and reduce the chance to conceive.

4. Medication
Women who took dietthylstilbestrol to prevent miscarriage during pregnancy in the 50-60 may unknowingly increase the risk of deformities to the child reproductive organs including abnormal cervix.

What exhibits Vaginal Conditions To Cause Infertility

1. Genetic defect
Vaginal adenosis is defined as a genetic defect caused by the mother taking the medication diethylstinesterol during pregnancy leading to abnormal vagina to the fetus and increasing the risk of cervical cancer for the mother.

2. Infection and inflammation
Abnormal vaginal discharge caused by infection, low levels of estrogen, or allergies may damage the vagina's inner lining. Frequent vaginitis may increase the risk of adhesion in the pelvic region or tubal blockage leading to infertility by reducing the chance of successful sperm invasion.

3. Yeast

Vaginosis is an infectious disease which distorts the balance of bacteria in the vagina leading to smelly discharge which is toxic to sperm thereby interfering with sperm's cervical invasion.

4. Lubricant
Some women use lubricant during sexual intercourse to smoothen the penis's penetration and reduce irritation, but it may cause a toxic effect on sperm.

5. Douching
Douching may be used to reduce the risk of infection caused by bacteria in or around the women vagina, but it may affect the quality of cervical mucus and interfere with the sperm's cervical invasion, thereby increasing the risk of infertility.

What Exihibits Uterine Conditions To Cause Infertility

1. Irregular cells Growth
Endometriosis and fibroids may increase the risk of infertility because they interfere with the implantation of fertilized egg into the uterus or the ability of uterus to carry the pregnancy to full term if they grow large enough.

2. Birth defects
Birth defect which causes abnormal formation of uterus may interfere with the normal conception and some of these malforming may never be diagnosed such as:
a) Unicornuate uterus is formed from one only of the paired mullerian ducts while the other mullerian duct does not develop.

b) Sepate uterus
Women who was born with sepate uterus and bicornate uterus may see their pregnancy end with premature birth of miscarriage because of little room for the fetus to grow.

c) Rokitansky syndrome
An inherit birth defect with a malformation of vagina and absence of uterus.

3. Sexual transmitted diseases
Gonorrhea is sexual transmitting disease caused by bacteria Neisseria gonococcus leading to infection and inflammation to the uterus and Fallopian tube in women and epididymitis in men resulting in tubal damage causing infertility and miscarriage.

4. Asherman's syndrome
Asherman's syndrome is a condition characterized by the presence of scars

within the uterine cavity. It is caused by scars after a D&C is performed on a recently pregnant uterus including a missed or incomplete miscarriage, birth, or elective termination in removing retained products of conception and placental remains causing endometrium inability to response to the estrogen during menstrual cycle leading to infertility.

5. Immune system
Immune system guards our body from foreign bacteria and virus, but sometimes may be over react to our body infection or inflammation or allergic response causing immune system attacks the reproductive sperm in men and women alike resulting in infertility.

What Exhibits Tubal Conditions To Cause Infertility

1. Gonorrhea
Gonorrhea is sexual transmitting disease caused by bacteria Neisseria gonococcus leading to infection and inflammation in the uterus and Fallopian tube in women and epididymitis in men .

2. Pelvic inflammation disease (PID)
PID is defined as a condition of an acute infection in the pelvic caused by sexual transmitted diseases leading infertility if the scar forming in the Fallopian tube blocks the tube completely.

3.Cornual pregnancy
A pregnancy in which the fertilized egg is implanted itself around where the fallopian tubes reach the uterus, It often end with miscarriage.

4. Tubal problem
The Fallopian is the tube that helps to retrieve egg from the ovaries and coax it toward the uterus and oncoming sperm. Tubal problem is caused by scar tissue restricting the movement of the egg or sperm including endometrial adhesion and implants.

5.Ureaplasma urealyticum
Ureaplasia urealyticum is a types of bacteria infection as resulting of sexual disease transmitting between partner. It causes no symptoms but interferes with the reproductive processes including tubal disease.

Recommended Reading
The Getting Pregnant Plan
I Created A Plan That Help Fertility
And Got Pregnant! You Can Too

Pregnancy Without Pounds

What Exhibits Ovarian Condition To Cause Infertility

1. Ovarian failure
Ovarian failure is a condition in which a women with age younger than 40 but she has experience the loss of ovarian function (early menopause) as resulting of low levels of estrogen and high levels of FSH hormone.

2. Ovarian resistance
For what ever reason, some women's ovaries do not response to FSH stimulation leading to no developing follicle. sSome researchers believe it is caused deficiency of FSH and LH receptors in the ovaries or post receptor defect.

3. Ovarian dygenesis
It is caused by the extra X chromosome defective at birth leading to sterility.

4. Kallmann's syndrome
Kallmann's syndrome is a birth defect syndrome which causes malfunction of hypothalamus gland in secreting the gonadotropin-releasing hormone leading to delay of puberty.
a) In men, it causes low levels of testosterone resulting of small size penis, cryptorchism leading to infertility because of no sperm during ejaculation.
b) In women, it causes no menstrual period and no egg production.

5. Hyperthyroidism
A condition caused by over production of thyroid hormone in the body produces that interfere the production of estrogen causing inability of pituitary gland to trigger the production of LH then ovulation leading to infertility.

6. Cushing's syndrome
Cushing's syndrome is a condition in which too much cortisol hormone is produced by adrenal gland leading to lower sperm production in male and abnormal ovulation in women.

What Exhibits Abnormal Cell Growth to Cause Infertility

1. Xanoestrogen
Xanoestrogen is also known as environment estrogen acts as estrogen. Accumulated of such toxins in the liver may block and interfere our body's reproductive normal functions including low sperm count, abnormal sperm production and movement.

2.Environment factors
Some people may not aware exposing themselves in certain chemical environment such as house building in previous dump site, living closed to some chemical processing site, etc. will interfere the body hormone production leading to reproductive abnormal function resulting in increasing the risk of birth defect, infertility and miscarriage.

4. Chemicals
Chemicals such as DDT, PCP and furans used in agriculture. freezer, etc. reduce the quality and lower the sperm count in men leading to infertility. In women, such chemicals may cause child defect and miscarriage.

5. Immune system
Malfunction of immune system caused by imbalance of our body qi and blood accordimg to traditional Chinese medicine (TCM) interferes with the reproductive process including the inflammation to cells which are vital involved in the processes of ovulation , preparation for implantation of a embryo (malfunction of endometrial lining) and sperm quality ad quantity (Antibody attack his own sperm).

6. Occupations
Occupations which expose to high amount of hazardous chemicals, such as welder, steel processing may distort the normal processes of reproductive organs leading to eggs and sperm damaging such as low quality of egg and sperm and other reproductive diseases.

What Exhibits Birth Defects to Cause Infertility

1. Genetic passing through
Congenital adrenal hyperplasia is present at birth and can affect both boy and girl alike. It is caused by the lack an enzyme which is vital for the adrenal gland to make the hormones cortisol and aldosterone resulting in higher than normal testosterone hormone in the body. While girl is born with muscular appearance with high levels of testosterone hormone, it leads to abnormal menstrual period and causing infertility. The disease may be difficult to diagnosis in boy, but it may interfere with the growth and normal function of the reproductive organ including the test and penis leading to infertility.

2. Medication
Some medicine used in the 50 -60 to prevent miscarriage such as dietthylstilbestrol interfere with the normal process of the reproductive organs leading to increasing the risk of deformities to the child reproductive

organs including abnormal cervix and uterus.

3. Epipadas
Epipadas is a type of birth defect happened to men as the urethra ends in an opening on the upper aspect of the penis. although men was born with epipadas having normal sperm production, but it causes the ejaculating problem as sperm can not deposit directedly into the cervix leading to infertility.

6. DNA duplication
Normally men carry X and Y chromosome and women carry XX chromosome, For what ever reason, if there are some abnormal formations of chromosome such as abnormality part of Y chromosome or loss of large part of Y chromosome, it may cause lower sperm count and interfere with fertility.

What Makes Infectous Diseases To Cause Infertility

1. Sexual transmitted Diseases
Most bacteria infect the reproductive system through unprotected sexual intercourse and are happened mostly to women and men with several partners.
a) Pelvic inflammation disease (PID)
PID is caused by sexual transmitted diseases to the pelvic region leading infertility if the scar as resulting of infection forming in the Fallopian tube blocks the tube completely.

b) Gonorrhea
Gonorrhea is also a sexual transmitting disease which infect the uterus and Fallopian tube in women and epididymitis in men.

c) Epididymitis
Epididymitis is defined as inflammation of epididumis caused by bacteria, sexual transmitting diseases and urinary tract infection leading to infertility if infection spread to testicles.

2.Vaginosis
Vaginosis is often caused by death of certain bacteria which helps to balance the production of bacteria in the vagina as resulting of douching or certain products to reduce pain during sexual intercourse or vaginal cleaning product.

3. Bacteria infection
a)Vaginitis
Vaginitis infection auses low levels of estrogen increase the risk of allergic

reaction leading to abnormal vagina discharge. in some serve case, it causes adhesion in the pelvic region or tubal blockage.
b) Ureaplasma urealyticum
Ureaplasia urealyticum is a types of bacteria infection with no symptoms and sexual transmitted between partner, it causes tubal disease, decrease sperm movement and quality causing infertility if left untreat.

4. Weakening immune system
We know that immune system is important to defence our body fighting against bacteria and virus causing sickness such as cold and flu or infection. In fact, immune system also helps to regulate the duplication of DNA and cells growth in the region where it suppose to grow. Weakened immune system causes irregular cells grow in the wrong organ leading to abnormal adhesion and implants causing inflammation.

5. Irregular cells growth
Irregular cells growth in peritoneal region including endometriosis, appendicitis, abdominal or pelvic operations, infect the pelvic during surgery cause a scarred abdominal cavity as resulting of infection or inflammation leading to infertility.

Chapter II - Infertility Diagnosis Conventional Perspective

A. Overcome Male Infertility -Diagnosis or Test In Conventional Perspective

I. Definition
Infertility is defined as inability of a couple to conceive after 12 months of unprotected sexual intercourse or can not carry the pregnancy to full term. It effects over 5 millions couple alone in the U. S. and many times more in the world, because of unawareness of treatments, only 10% seeks help from professional specialist. In fact, More than 40% of infertility of a couple is caused by male inability to fertilize. Diagnosis is a analytics approach, after initial consultation and medical history and personal information have been taken from a patient or couple. The main objective conventional diagnosis is to find the causes of infertility, but unfortunately, it has less than 1% successful rate. We will try to give you the definitions of type of diagnosis in alphabet order.

Recommended Reading

I. Medical history and physical exams
Before reading the definition of types of diagnosis, you may want to know briefly what information is recorded on your personal file

I. General medical history

1. Any miscarriage, previous pregnancies and abortion.
2. Any ectopic pregnancy
3. Any previous surgery
4. Have you now on HRT.
5. Use of conceptive method, type of use
6. Any reproductive chronic pain including STD. urinary tract infection ad chronic diseases.
7. Medication you are taking now
8. Any medication of your mother during pregnancy to rule out infertility caused by birth defect
9. Your lifestyle.

II. Physical Exam

a) Testicle related including injure, childhood testicle illness and abnormal in birth
b) Age of puberty
c) Number of previous sexual partners
d) Question related to ejaculation and impotence
e) Do you have child with other women
f) Have you ever contacted and treated with sexual transmitted diseases
g) Hot bath
h) Smoking and drugs abuse
i) Expose to radiation
j) workplace hazard
k) Medication may influence your sexual organs.
l) Other general exam depending to your specialist (herbalist or others)

III. Male Infertility Diagnosis

1. Acrosome reaction test

After the sample is taken your fertility specialist exam the acrosome reaction of your sperms to see how your sperm penetrate the female egg, how the enzymes (acrosome then acrosin released from the sperm head) in sperm work through tough coating of the eggs and fgertilized it. The purpose of this test is to diagnosis the sperm acrosome then acrosin to see hoe these enzyme help to break tough surface of the egg. If not it may be the cause of infertility and specific treatment is required. It happens only 5% of infertility male population.

2. Antisperm antibody

An antisperm antibody test as defined as a test to look for abnormal function of immune system antibodies that fight against a male's sperm in blood, vaginal fluids, or semen. With a substance added to the sample sperm, the test will tell whether the sperm is affected by proteins of the immune system or not.

3. Biochemical analysis
The study of the chemical substances and vital processes occur in male testicle such as the concentration of white blood cells, the level of fructose in the semen, and the volume, pH, and liquefaction time of the ejaculate.

4. Computer-Assist semen analysis
The sample of sperm is scanned in to the computer pre store program to show how the sperm quality, quantity, shape and movement. Since any small change of the computer may produce a significant change in sperm calculation, therefore any abnormal sperm count should be confirmed by manual count.

5. Hemizona assay
Hemizona assay is the analysis to compare sample sperm of the male to the sperm of the fertilized male by splitting the mature and normal egg into 2 half. 1/2 is tested by sample sperm and the other half is tested by fertilized male sperm.

6. Hormone evaluation
Hormonal evaluation is a study to measure the levels of certain hormones produced by your body such as levels of FSH and testosterone which are involved directly in sperm production. The test will only be used if the semen of sperm analysis comes back with low density of sperm or your specialist suspects that hormone imbalance is the cause of infertility.

7. Human zona pellucida binding test
The testes help to exam how the sperm bind to outer layer of the egg including hemizona assay.

8. Hypoosmotic swelling test (HOST)
hypoosmotic swelling test (HOST) is the test used to identify sperm membrane for structure integrity by examining how the sperm tails react to special sugar and salt. Only healthy sperm can react in that circumstance.

9. Pene trak
Pene trak is the test for 90 minutes to check the movement of sperm through a normal and friendly mucus in the test tube.

10. Peroxidase staining
It is a test to check for infection by differentiating white blood cell from the immature sperm.

11.Post-coital/cervical mucus test
It is a test to see how friendly the mucus of the cervix toward the sperm invasion a few days before and after ovulation. The result can be determined after
a) Male partner sperm with female partner cervical mucus
b) Male partner sperm with healthy mucus
c) Known healthy sperm with female partner mucus
d) Known healthy sperm with known healthy muscle

12. Sperm penetration assay (hamster test)
Sperm penetration test only is needed if the normal semen test can not determine the sperm penetration ability then hamster eggs with the ouster membrane has been stripped off are used in place of female eggs because of it's structural similarity to human eggs. After the sperm and hamster eggs have incubated for three hours, the eggs are checked for sperm penetration. Any percentage over 10 % is considered normal and potential for fertilization. Since it is used eggs other than human being, good sperm penetration rate in hamster test does not guarantee 100% of positive result in human.

13.Sperm-Ubiquitin tag immunoassay (SUTI)
Sperm-Ubiquitin tag immunoassay ignores other sperm attributes and focus solely on sperm's ubiquitin because ubiquitin is considered as a universal marker of any sperm abnormalities including sperm damage and sperm defective, thereby reducing some unnecessary treatments.

14. Semen analysis
A semen analysis is usually the first test for all infertility male , it helps to measure the amount of semen a man produces and determines the quantity and quality of sperm such as size, shape. movement and PH level in the sample.
a) Normal form sperm
Ovary head, single tail with intact midsection and an uncoiled.
b) Abnormal heads
Head of sperm if too big or too small and other than ovary head.
c) Abnormal tails
Coil, broken, bent tail and other than single tail.
d) Immature gen cells
Since white blood cells and white gen cells have a very similar apprance and structure, it is up to the specialist to make sure that the present is immature gen cells and not white blood cells.
e) Vital staining

It is the analysis to see the percentage of dead sperm compare to lice one.
f) Urinalysis
It is to make sure the infertility is not caused by retrograde rejaculation and the urinary tract is not infected.

15. Scrotal sonography
Scotal sonography is used to evaluate the testicle disorder and surrounding organs including prostate gland, epididymis, an absent or undescended testicle and any testicle abnormality.

16. Testicle biopsy
A small sample is taken and tested for the ability of sperm producing cellsl in normal cells production. This test is necessary if the infertility male is found to have no sperm in semen, normal sex levels of hormone and abnormal sperm with unknown cause. The risk of the test may cause testicle damage.

17. Vasography
Vasography is a Radiographic study of the vas deferens. It helps to determine if the vas deferens is blocked or not and the reason of such blockage. In this study, if there is large amount of sperm containing fluid presented when the vas deferens is open, it indicates there is a block appeared in the vesicle end of the vas deferens. If there is no fluid presented, the procedure continue until the cause of blockage is found, if there is one.

AA. What Is Acrosome Reaction Test
I. Definition
An Acrosome reaction test is a sperm analysis. The sample is taken through masturbation to see how the sperm performs during the fertilizing process. It may be necessary if the fertilization specialist suspects that the causes of infertility may be a sperm related problem.

II. Diagnosis
After the sample is taken, your fertility specialist exammines the acrosome reaction of your sperm to see how your sperm penetrates the female egg, how the enzymes (acrosome, then acrosin released from the sperm head) in sperm work through tough coating of the eggs to fertilize it. If not, it may be other causes of infertility and specific treatment is required.

III. Analysis
If the diagnosis finds that the sperm is unable to penetrate the egg because of a lack of acrosome or acrosin, then intracytoplasmic sperm injection (ICSI) may be suggested by your specialist so that the fertilization process can be by-passed by the natural penetration of sperm as ICSI is the direct injection of a sperm cell into the egg. If the ICSI is decided, then the fertilization process is either through intrauterine insemination (IUI) or in

vitro fertilisation (IVF).

Since the test only provides a limited amount of information about how sperm penetrate the egg, some doctor may choose to forgo it because of very low percentage of males who have such problem, unless it is absolutely necessary.

AB. What is Antisperm Antibody Test ?

I. Definition

An antisperm antibody test is defined as a test to look for any abnormal functioning of the immune system's antibodies that fight against a male's sperm in blood, vaginal fluids, or semen. With a substance added to the sample sperm, the test will tell whether the sperm is affected by proteins of the immune system or not. If you would like to know the immunity causes of infertility, please refer back to previous articles.

II. Procedure

a) Reason for this test

If you cannot find the cause for infertility from other tests such as the postcoital test.

b) A medical information form is required so you can understand the risk, how to prepare, how it is done, and what are the possible results.

c) For women: blood, vaginal fluid and uterus mucus samples are required.

d) For men, semen sample is collected by masturbation. It is important that you should not ejaculate for 2 days before the test and go longer than 5 days before the test without ejaculating. Semen samples should be collected within 48 hours of ejaculating or after not ejaculating for longer than 5 days may alter the test result.

III. Analysis

The purpose of this analysis is to find the possible causes of infertility due to immunity malfunction. Here are the possible outcomes:

1. If antisperm antibody is found on the head of sperm, causing the inability of the sperm to efficiently make its way through a woman's cervical mucus, then medication is required

2. If antisperm antibody is found on the tail of sperm, it may cause the sperm to risk becoming immobilized or clumping together, you are required to take some medication.

3. If antisperm antibodies are found in the cervical mucus, then medication is given or other treatments may be required.

4. If no antisperm antibody is found, other test may be required.

AC. What is Biochemical Analysis ??

I. Definition

The study of the chemical substances and vital processes occurring in male testicle such as the concentration of white blood cells, the level of fructose in the semen, and the volume, pH, and liquefaction time of the ejaculate.

II. Procedure

The semen sample of sperm is taken at the clinic laboratory through masturbation, the the semen is sent for analysis for chemical substances and vital processes as mentioned in the definition.

III. Diagnosis

This test a semen analysis typically for

1. Volume

The semen sample required for this test is no less than 2.0 ml or more
It measures the number of sperm per millilitre (ml) of ejaculate

2. pH

pH is a measure of the acidity or basicity of a solution (PH of 07 is considered as neutral). In this test, it is requires in the range of 7.2-8.0 to be considered as normal.

3. Sperm concentration

It measures the number of sperm per millilitre of ejaculate, for a normal sperm concentration it requires 20,000,000 per ml or more.

4. Motility

Motility is a measure of sperm for movement, the normal sperm motility is 50% or more with forward progression. It can be classified in 4 grade

a) Sperm with progressive motility:
These are the strongest and swim fast in a straight line

b) Non-linear motility: These also move forward but tend to travel in a curved or crooked motion.

c) Non-progressive motility:
Sperm not move forward despite the fact that they move their tails.

d) Non motility:
Fail to move at all.

5. Rapid forward progressive motility

Sample sperm requires to have at least 25% or more of this types of sperm to be considered as normal.

6. Morphology

It is the study of normal and abnormal form of the sperm. It considered

normal if it is
a) 30% or more normal forms (WHO criteria)
b) 11% or more normal forms (Tygerberg strict criteria developed by Dr. Roelof Menkveld, Tygerberg Hospital, South Africa, and disseminated by Dr. Thinus Kruger)

7. Vitality
The sample should have least 75% live sperm in a semen sample
8. White blood cells
The sample must have a white blood cells of less than 1,000,000 per ml. Otherwise, it may be an indication of immunity causes of infertility and more testes are required.

AD. What is Computer-Assist Semen Analysis ??
I. Definition
The sample of sperm is scanned in to the computer pre store program to show how the sperm quality, quantity, shape and movement. Since any small change of the computer may produce a significant change in sperm calculation, therefore any abnormal sperm count should be confirmed by manual count.

II. Procedure
Since 25% of all infertility is caused by a sperm defect and 40-50% of infertility cases have a sperm defect as the main cause, or a contributing cause. The second test that your doctor order usually is the computer assist semen analysis if the normal semen analysis fail to given a conclusive result. A sample semen sperm is collected through masturbation in the clinic laboratory.

III. Diagnosis
It said that CASA provides more accurate reading than normal semen analysis, because 25%
of all samples shown as infertility in normal semen analysis even with the normal fertility male. The computer will study chemical substances and sperm quality, quantity as in normal semen analysis, including
1. Volume
The semen sample required for this test is than 2.0 ml or more
It measures the number of sperm per millilitre (ml) in the semen.
2. pH
It is requires in the range of 7.2-8.0 to be considered as normal.

3. Sperm concentration
For a normal sperm concentration it requires 20,000,000 per ml or more.

4. Motility
The normal sperm motility is 50% or more with forward progression. It can

be classified in 4 grade
a) Sperm with progressive motility:
b) Non-linear motility
c) Non-progressive motility:
d) Non motility:

5. Rapid forward progressive motility
The sample semen must have 25% or more of sperm with rapid forward progressive motility.

6. Morphology
It is the study of normal and abnormal form of the sperm. It considered normal if it has
30% or more normal forms (WHO criteria)

7. Vitality
The sample should have least 75% live sperm in a semen sample

8. White blood cells
The sample must have a white blood cells concentration of less than 1,000,000 per ml.

IV. Risk
Since any small change of the computer may produce a significant change in sperm calculation, therefore any abnormal sperm count should be confirmed again by manual count.

AE. What is Hemizona Assay??
I. Definition
Hemizona assay is an analysis to compare the binding capacity of sample sperm of the unfertilized male to the sperm of the fertilized male through manual hand cutting versus micro manipulation in IVF and IUI fertilization.

II. Diagnosis
After splitting the mature and normal egg in half. 1/2 is tested by sample sperm of the infertile male and the other half is tested by the fertilized male sperm through manual hand cutting or micro manipulation. Then the number of sperm bounds to each half and is calculated, and the infertile male's sperm is divided by that from the fertile male's sperm. A figure of less than 0.60 indicates abnormal infertile male's sperm.

Although the success rate of this test is not 100%, the HZA has been found to be predictive of IVF and IUI outcome with positive and negative values of 83% and 95% respectively, according to one study. Therefore, if an

infertile couple decides to go through IUI or IVF for conception then the hemizoma test is necessary.

III. Risk
There is no guarantee that a couple who scores high in the hemizoma test will be successful to conceive via IVF or IUI, because there are other factors that may interfere with the process after the fertilized egg or embryo was implanted into the uterus.

AF. What Is Hormone Evaluation ??
I. Definition
Hormonal evaluation is a study to measure the levels of certain hormones produced by your body such as levels of FSH and testosterone which are involved directly in sperm production. The test will only be used is the semen of sperm analysis come back with low density of sperm or your specialist suspects that hormone imbalance is the cause of infertility.

II. Procedure
Your fertilized special may order saliva test or blood spot test overall hormone assessment.

III. Analysis
Primary hormone imbalance effecting fertility happens only about 3% of infertile male, therefore if your doctor suspects that you have some symptom such as loss of muscle, enlarged breasts, low sexual desire, softer erections, weigh gain or loss, erectile dysfunction, low sperm density, etc., he or she may ask for male hormone imbalance test.
1. Testosterone
Testosterone decrease with age, testosterone deficiency is common in men over the age of 50. If the levels of testosterone is too low, it may causes sexual dysfunction (most of the time he also has deficiency of kidney yang according to traditional Chinese herbalist) and symptoms of low density of sperm and sperm count and interferes with reproductive system in process of fertility.

2. Excess estrogen (estradiol)
Excess estrogen in male is rare, but it may happens. It causes symptoms such as hair loss, decreased libido, Increased urinary urge, prostate enlargement, weight gain and low sperm production and low sperm count that increases the risk of infertility.

3. Levels of FSH
FSH levels are important in production of sperm, if the levels of FSH is too high as resulting of primary testicular failure, it may interfere with sperm production and decrease sperm density and count.

AG. What is Human Zona Pellucida Binding Test ??

I. Definition

The testes help to exam how the sperm bind to outer layer of the egg, including hemizona assay.

II. Procedure

The test is necessary if the men is found to be infertile with either reduced sperm count, motility and morphology alone, or in combination and is classified with unexplained causes. The sperm and egg are collected from a couple and is used to see the sperm penetration in IVF.

III. Diagnosis

The process of human fertilization, sperm must bind to the zona pellucida, undergo the acrosome reaction, penetrate the the out layer of the egg and then fuse with the oolemma. The process is observed and recorded. If the sperm can not penetrate the egg then other testes may be needed or conception may be required more technical support. If the sperm has no problem in egg penetrating, then IUI or IVF is the best choice in assisting the fertilization for a unfertilized couple.

IV. Risk

Although the successful rate to conceive is very high, if a couple pass the humanzona pellucida binding test, but it is not 100% guaranteed, since for a couple to get conceive, it takes more than human zona pellucida test.

AH. What is Hypoosmotic swelling test (HOST)??

I. Definition

Hypoosmotic swelling test (HOST) is the test used to identify sperm membrane for structure integrity by examining how the sperm tail reacts to special sugar and salt. Only healthy sperm can react in this circumstance.

II. Procedure

The HOS test was performed by mixing special sugar and salt in distilled water. The mixture was incubated and immediately examined under a microscope. The percentage of reacted sperm (curled tails) and non-reacted sperm (non-curled tails) were assessed.

III. Diagnosis

1. A sample sperm is considered normal if more than 60% response to the swollen spermatozoa. otherwise the tested sample is considered to have poor sperm membrane structure integrity. It is said the hypoosmotic swelling test result is predictive of the sperm penetration test. If the tested sample fail, it may need some other technical support to by-pass the sperm penetration process.

IV. Risk

Although the hypoosmotic swelling test is less time consuming and can help to determine the the sperm fertilization capacity, the result is not 100% guaranteed. For the couple to conceive, it take more than the hypoosmotic swelling test for a successful pregnancy, please make sure that other health problems have been taking care of.

AI. What is Pene Trak ??

I. Definition
Pene trak is a test for 90 minutes for checking the movement of sperm through a normal and friendly mucus in the test tube.

II. Procedure
Tested sperm is taken in the clinic laboratory through masturbation then the mixer of sperm and friendly mucus is examined through microscope.

III. Diagnosis
After a 90 minutes, the sample is observed through the microscope and the distance of the sperm have penetrated the mucus also is recorded. Failure of sperm to move a minimum distance is considered to have a poor chance for egg fertilizing and suggested a infertility problem for the testes sample couple. The inability of sperm to move a minimum distance through cervical mucus may be caused by immune antibody leading to the risk of infertilization.

IV. Risk
Ff the test is successful, it only increases the chance of fertility but does not guarantee the sperm will be free to fertilize the egg when it reach the Fallopian tube. Please make sure that other reproductive organs are already taking care for a healthy conceive.

AJ. What is Peroxidase Staining test ??

I. Definition
Peroxidase Staining is a test of infection by differentiating white blood cells produced by the immune system from immature sperm.

II. Procedure
If a man is suspected to have producing abnormal sperm caused by infection of the reproductive system including high levels of white blood cells in other sperm test, then his doctor may require a peroxidase staining test. A semen sample is taken in the clinic laboratory with masturbation.

III. Analysis
1. Levels of white blood cells
Since high levels of white blood cells or leukocytes cause cells oxidation to leading to changing the makeup of sperm cells, affecting motility and morphology and damaging their ability to fertilize an egg.

2. Infection other in the reproductive system
If the infection of the body is the cause of increasing of the white blood cells in the semen, than
of antibiotics may be given. If the infection is caused by testicle damage then same medication may be given but you may also be advised to ejaculate frequently, to move those excessive white blood cells out of the seminal tract.

IV. Risk
Infection of testicle if not treat early may cause permanent damage to the test and increase the risk of infertility.

AK. What is Post-coital/cervical mucus test??

I. Definition
The Post-coital or cervical mucus test is to analyze the sperm present and motility.

II. Procedure
1. The test may be done after sperm is ejaculated into the vagina after sexual intercourse of the infertile couple.
2. It can be done through the test tube by placing the cervical mucus with semen sperm of infertile couple.

III. Diagnosis
1. Sperm penetration
It is a measure of the ability of the sperm to undergo the process of egg penetration. It includes DNA and enzymes that are needed for penetration and fertilization.

2. Sperm movement
The test is to check the sperm for any type of movement including progressively motile sperm which swims forward in a straight line and non-progressively motile sperm which swims in an abnormal path.

3. Cervical mucus analysis
It checks if the cervical mucus is friendly or hostile to sperm invasion

because during the fertile period there is an increase in cervical mucus production at the ovulation and the mucus becoming more pliable, stretchable, and slippery which allow sperm to move freely through the cervix. If the sperm can not move through the cervical mucus in this period than there are 2 outcomes
a) Sperm problem and other tests may be required before treatment.
b) Cervical mucus abnormality (sperm unfriendly mucus) and treatment may be required.

AL. What is Sperm Penetration Assay (Hamster Test)??

I. Definition
With the hamster egg stripping off the outer layer, the test is to check the ability of the infertile male sperm in egg penetration.

II. Procedure
This test is done in clinic laboratory with semen sperm taken through masturbation. The hamster egg is stripped off the outer layer and the sperm of infertile male is put into a tube.

III. Diagnosis
After a certain time, the combination in the tube is checked for
1. If the penetration rate is anywhere higher than 10%, the semen sperm is considered to have a good chance to penetrate the human egg for fertilization.

2. If the penetration rate is less than 10%, the risk in human egg penetrating is diminished and the rate in fertilizing the female partner egg is decreased substantially.
The test is normal used if the male partner is having symptoms of low sperm count, a healthy man with unexplained causes of infertility.

IV. Risk
Although the test is considered very accurate, but inability to penetrate the hamster egg does not imply the sperm can not penetrate the human egg.

AM. What is Sperm-Ubiquitin tag immunoassay (SUTI)??

I. Definition
The test is to detect the inherited fertility disorder of the infertile male to avoid any unnecessary
fertility treatments for women.

II. Procedure
The semen sperm is taken from the infertile male in the clinic laboratory and the surface of sperm is screened for ubiquintin which is a small, highly-conserved regulatory protein that is ubiquitously expressed in complex structures enclosed within membranes.

III. Diagnosis
Since ubiquitnin is considered a universal marker of semen abnormalities, including sperm head and tail defects and semen contaminants such as spermatids, leukocytes and cellular debris.
The semen example is screened through immunofluorescence and flow cytometry, if there is an displays of increasing binding of anti-ubiquitin antibodies to sperm surface, the sample sperm is considered abnormality which increases the risk of infertility becasues elevated sperm ubiquitin levels have been associated with reduced fertility or infertility.

This test is still in developed state, if proven success, it not only helps to avoid many unnecessary treatments for unfertile couple but also helps to remove damaged sperm from semen sample before IVF and ICSC.

AN. What is Semen analysis ??

I. Definition
A semen analysis is a test which uses to measure the number and quality of sperm in the semen sample of a infertility male.

II. Procedure
The sample is taken through clinic laboratory through masturbation.

III. Analysis
1. Volume: how much semen is present in one ejaculation.
2. Time of liquefaction
How long to takes the semen to liquefy.
3. Sperm count
How many sperm are presented in one ejaculation.
4. Sperm morphology
How many sperm have of normal shape including head, body and tail.
5. Sperm motility
The percentage and numbers of normal sperm which move forward progressively.
6. PH levels
It is a measure of the acidity (low pH) or basidity (high pH) of the semen.
7. White blood cells
Are the white blood cells presented normal or abnormal. If the levels of white blood cells are high, it may cause sperm clumping together and limit

the sperm movement thereby, increasing the risk of infertility.
8. Fructose level:
A measure of the amount of fructose in the semen. Since fructose is a principal source of energy for the sperm, a high levels of fructose is a good indication of healthy sperm and low or absence of fructose may indicate the problem with tubular glands posteroinferior to the urinary bladder of males.

AO. What is Scrotal sonography ??

I. Definition
Scrotal sonography is used to evaluate the testicle disorder and surrounding organs including prostate gland, epididymis, absent or undescended testicles and any testicle abnormality.

II. Procedure
You need to come into the ultrasound laboratory for the test.

III. Diagnosis
The test is important if a patient has acute pain in the scrotum and usually used to take images for evaluating disorders of the testicle.
1. If the doctor or patient found a mass in the scrotum, the scrotal sonography will help to determine whether a mass is cystic or solid. Does the mass will interfere with reproductive process or it cause any problem with normal sperm production such as tubal blockage.

2. It also helps to diagnose the causes of testicular pain
a) Swelling or inflammation
It helps to determine the inflammatory condition of the testicles caused by infectious process such as a tumor that cause swelling.
b) Torsion .
Torsion is defined as a twisting of testicle causing blocking the flow of blood to or from testicle, abnormal attachment of the epididymis to the wall of the scrotum testicle.

3. Trauma to the scrotal area
it can review the causes of trauma such as a hematocele (a collection of blood that surrounds the testicle), bruise or rupture of the testicle.

AP. What is Testicle Biopsy??

I. Definition

A small sample is taken and tested for the ability of sperm producing cell to produce normal cells. This test is necessary if the infertility male is found to have no sperm in semen, abnormal sex levels of hormone and abnormal sperm with unknown causes.

II. Procedure
After the skin over the testicle is cleaned and a local anaesthesia is given to numb the area, a small surgical cut to remove a small piece of the testicle tissue. Testicle biopsy is usually done in your doctor office.

III. Analysis
The purpose of this test is to find the causes of an infertile male or any physical problem may interfere with normal sperm production.
1. Tubal blockage
There may be a blockage of the tube through which the sperm travel from the testes to the urethra.

2. Cyst
A cyst-like lump filled with fluid and dead sperm cells which may interfere with the sperm production such as blockage of the tube.

3. Orchitis or inflammation of the testicle
It is sometimes found along with epididymitis, especially if epididymitis has gone untreated.

4. Testicular cancer
The testicle biopsy is necessary, if a patient is found to have symptoms such as loss of sexual activity or interest, a lump in one testis or a hardening of one of the testicle, abnormal sensitivity, lower back pain, sudden decrease or increase in the size of one or both testes, blood in semen, etc.

IV. Risk
The risk of the test may cause testicle damage, small amount of bleeding and sometimes infection.

AQ. What is Vasography Analysis ??

I. Definition
Vasography is a radiographic study of the vas deferens. An x-ray is taken once a contrast medium is injected.

II. Procedure
A small ultrasound probe is placed against the scrotum or into the rectum. If vasography is performed, radiographic dye is injected into the vas deferens (a tube connecting the site where the sperm is stored to the duct that expels

it) and ejaculatory ducts. An X-ray is taken as the dye flows through the ducts.

III. Diagnosis
It helps to determine if the vas deferens is blocked or not and the reason of such blockage. In this study
a) if there is large amount of sperm containing fluid presented when the vas deferens is open, it indicate there is a block appeared in the vesicle end of the vas deferens. If there is no fluid presented, the procedure continue until the cause of blockage is found, if there is one.
b) The procedure is also perform on the other side of vas deferens.
c) The test sometimes found the blockage in the ejaculating duct, then surgical correction may be require.
d) It sometimes may found the problem is caused by blockage in the groin region, it can be corrected by surgery.

IV. Risk
No risk is found.

B. Overcome Female Infertility -Diagnosis or Test In Conventional Perspective

I. Definition
Infertility is defined as inability of a couple to conceive after 12 months of unprotected sexual intercourse or can not carry the pregnancy to full term. It effects over 5 millions couple alone in the U. S. and many times more in the world, because of unawareness of treatments, only 10% seeks help from professional specialist. In fact, More than 40% of infertility of a couple is caused by female inability to fertilize. Diagnosis is a analytics approach, after initial consultation and medical history and personal information have been taken from a patient or couple. The main objective conventional diagnosis is to find the causes of infertility, but unfortunately, it has less than 1% successful rate. We will try to give you the definitions of type of female diagnosis in alphabet order.
II. Personal history and physical exams
Female exam
a) reproductive organs infection
b) Any previous reproductive organ surgery
c) Pelvic exam
d) Question related to genetic defect.
e) vagina exam
f) Uterus and cervix
g) Fallopian tube
h) Ovaries
i) Bladder
k) Rectum
l) Other general exam depending to your specialist (herbalist or others

III. Female infertility diagnosis

1. Antisperm antibody test

The antisperm antibody test is one of procedure which helps to see how antigens and immune system function react toward sperm invasion through blood test. If the immune system recognizes the sperm as the foreign objects, it will produce white blood cells to kill them.

2. Blood test

Routine blood test is not necessary for infertility women, but sometimes blood test is ordered to check for anaemia, blood type and antibody. Or sometimes to check estradiol, LH, FSH and progesterone.

3. Cervical test

Cervical test is the study of the cervical mucus thoughtout menstrual ccycles and to see the mucus is friendly to sperm invasion or not, there are 2 types of cervical test

a) Spinnbarkeit

With the Spinnbarkit is a self help kit, it can be done by the women at comfort at her own home to exam the mucus characteristics, because the mucus consistently change throughout menstrual cycle.

b) Postcoital test

This test is done just before ovulation to see the cervical mucus is friendly to sperm invasion.

4. Endometrial biopsy

Endometrial biopsy removes some tissue from the infertile women uterine lining to chech for any endometrial adhesion and implants.

5. Hysteroscopy

It is a study of infertile women uterine abnormality by placing a small, thin with small telescope through the cervical canal to check the inside of uterus.

6. Ovulation test

Since failure of ovulation is account for over 25% of female infertility, your doctor may order ovulation test right after first visit. It helps to determine" Are the eggs produced each month?".

7. Progesterone test

Since progesterone is produced with high amount a few days after the eggs has emerged. Low levels of progesterone interferes with the ovulation of women menstrual cycle, causing infertility. Blood test is done at the 4 -9 days after predicted ovulation for women with 28 days cycle.

8. Radioimmunoassays (RIAs)

Radioimmunoassay (RIAs) is a very sensitive technique used to measure concentrations of antigens including levels of testosterone, LH, FSH,

prolactin. It helps your doctor to determine that the infertility is caused by hormone imbalance of certain hormones or not during menstrual cycle.

9.Tubub patency test
It is the test to check the health of Fallopian tube and make sure there is no blockage in the tube with X ray examination. Normally, dye is injected through the cervix, it then fills the uterus and flows into the Fallopian tube, if there is blockage, the pressure may build up causing pain.

10 Ultrasound
The use of high frequency in ultrasound exam is to check for any abnormality in the abdominal region including the ovulation scan which is used to see when the egg mature and when a women ovulates and the thickness of the uterine lining, etc.

11.Urinaryluteinizing hormone (LH) test
An urinary test is used to identify the surge of LH just before ovulation. It usually use to determine the best time for a couple to have sex and for the female partner to get pregnant.

BA. What is Antisperm antibody test??
BB. What is Infertility Blood test ??

I. Definition
Routine blood test is not necessary for infertility women, but sometimes blood test is ordered to check for anaemia, blood type and antibody. Infertility Blood test is defined as a test to check for levels of estradiol, LH, FSH and progesterone.

II. Procedure
Blood is withdrawn from a vein in the arm in the clinic laboratory.

III. Diagnosis
1. Estradiol
Estradiol has a critical impact on reproductive and sexual functioning. It supports the lining of the vagina, the cervical glands, the endometrium and the lining of the fallopian tubes. If the levels of remain low on the first 10

days during menstrual cycle, it may interfere with ovarian eggs production leading to poor quality egg and infertility.

2. Luteinizing hormone (LH)
With the rise of estrogen, LH receptors are also expressed on the maturing follicle that produces an increasing amount of estradiol leading to ovulation and stimulates the production of progesterone. Abnormal of LH may interfere the natural ovulation leading to infertility.

3. Follicle stimulating hormone (FSH)
FSH stimulates the growth and recruitment of immature ovarian follicles in the ovary in the early stage of menstrual cycle. Unbalance of FSH may interferes with the growth of immature follicle and ovulation.

4. Progesterone.
Progesterone increase with the great amount after ovulation. It helps to make cervical mucus thick and impermeable to sperm, prepare the uterine lining for implantation of fertile egg and increase immune system acceptance of the pregnancy, decreases contractility of the uterine muscle and inhibits lactation during pregnancy.

I. Definition
The antisperm antibody test is one of procedure which helps to see the antigens of the immune system function toward sperm invasion through blood test. If the immune system recognized or not the sperm as the foreign object, it will produces white blood cells to kill them.

II. Procedure
Blood is withdrawn from a vein in the arm of the infertile female in the clinic laboratory and is to analyzed by immunologic infertility specialist.

III. Diagnosis
The test uses a sample of sperm and adds a substance that binds only to the test sperm.
Semen sample causes the immune system response in either the man's or woman's body. If there is an injure somewheres in the body or inflammation caused by irregular cell adhesion or implants such as endometriosis or sexual transmitted diseases infection which may stimulate the production of white blood. The white blood cells can damage or kill sperm if a high number of sperm antibodies is found leading to immunologic infertility. Women may have an allergic reaction to her partner's semen and make sperm antibodies leading to faultily recognizing the sperm as foreign invasion, thereby producing high a mount of antibody to kill them leading to infertility. This kind of immune response is not fully understood and happens only to small percentage of infertility couple. It is said that this kind of abnormal function can be treated by controlling the allergic reaction if the

causes are found.

BC. What is Cervical Mucus test ?

I. Definition
Cervical mucus test is the study of the cervical mucus through out menstrual cycles. The main focus of the test is to analyze "Is the mucus is friendly to sperm invasion or not ?". There are 2 types of cervical test.

II. Procedure
1. Spinnbarkeit
The sample is taken from the vagina to check for the day of ovulation.
2. Postcoital test
The test is examined within 4 hours at the doctor office or laboratory after sexual intercourse and assuming that the male partner has a healthy sperm production.

III. Diagnosis

a) Spinnbarkeit test
Spinnbarkeit is a self help kit, it can be done by a woman at comfort at her own home to exam the mucus characteristics, because the mucus consistently change throughout menstrual cycle. If the mucus is watery and stretchable, it means it is very close or a good chance that the ovulation is coming.
b) Postcoital test
It is also known as sperm-sperm mucus interaction test or Sims-Huhner test, it is done after the Spinnbartkeit test or at the laboratory just before ovulation to see how the sperm of the male partner swim through the watery and stretchable mucus. If the sperm is able to swim normally then the cervical mucus is consider friendly to sperm invasion or otherwise. If there are no sperm are found in the cervical mucus but presented in vagina, or sperm are found clumping, no movement or dead then the female partner may be suspected to produce sperm hostile cervical mucus. More analysis may be required to rule out any external factors.

BD. What is Endometrial biopsy?

I. Definition
By removing some tissue from the women uterine lining to check for any endometrial adhesion and implants or to see if the uterine lining is embryo implantation compatible.

II. Procedure
There are a few way to perform this test, but here are the most commons.
1. The sample is taken at the doctor office by using a soft, straw-like device to withdraw a small sample of the lining from the uterus.
2. Sometimes dilation and curettage (D&C) is needed if the woman is found to have heavy bleeding. The sample is taken by a sharp-edged tool called a curette. Your doctor will scrape a small sample and collect it with a syringe or suction.

III. Diagnosis
The sample will be examined to check for any endometrial adhesion and implants or if the uterine lining is embryo implantation compatible, because the lining of the uterus changes throughout a woman's menstrual cycle. In the early menstrual cycle, the lining grows thicker until a mature egg is released from an ovary then soften for egg implantation if the egg is fertilized. If the egg is not fertilized, the lining is shed during menstruation.

IV. Risk
1. Small amount of bleeding
2. Pain and cramps
3. Feeling faint or light-headed
4. Infection
5. Rarely, perforation of the uterus and heavy bleeding.

BE. What is Hysteroscopy ?

I. Definition
Hysteroscopy is a study of infertile women uterine abnormality by endoscopy.

II. Procedure
The hysteroscope is an medical instrument which is used to exam the infertile woman cavity. It is connected to a video unit with a light source, and to the channels for delivery and removal of a distention medium, the cavity normally is expand by either fluids or CO_2 gas during inspection. It normally is done at the hospital as outpatient or in clinical laboratory.

III. Diagnosis
By placing the hysteroscope through the cervical canal to check the inside of uterus. Your doctor can check for any abnormality in the uterus. If found, sometimes it can be operated right the way with a specialized instruments.

IV. Risk
1. Damage the uterine wall
2. Bleeding

3. Damage to other reproductive organ

BF. What is Ovulation test ?

I. Definition
Since failure of ovulation is account for over 25% of female infertility, your doctor may order ovulation test right after first visit. It helps to determine" Are the eggs produced each month?".

II. Procedure
Blood sample is taken at the clinic laboratory to see if the levels of your hormones are in the normal range for ovulation.

III. Diagnosis
Under this test, you may ask to come in the clinic to have blood sample withdrawn from your arm at different stages in your cycle in order to measure the levels of LH, follicle stimulating hormone (FSH) or progesterone because at each stage these hormones change to accommodate for the need for the result of egg fertilization. Thyroid hormone places an important role in ovulation, your thyroid hormone is also checked. Since the body of a women is unique and depending what types of symptoms and what your doctor suspect, your doctor will decide which blood tests to carry out.
If the tests suggest that you are not ovulating, you may need to take some medication to help you ovulate or you may be referred you to a fertility specialist for more tests.

BG. What is Progesterone test?

I. Definition
Progesterone test is to measure the levels of progesterone which are vital for softening the uterine lining and helping with implantation after an egg is released from your ovaries as the remaining follicle becomes the corpus luteum.

II. Procedure
Blood test is done at the 4 -9 days after predicted ovulation for women with 28 days cycle.
The of levels progesterone is different in each stage of menstrual cycle, it surges just before ovulation.

III. Diagnosis
The progesterone test is used for a wide variety of different purposes. It

helps to determine
1. If ovulation has occurred
2. When ovulation occurred
3. The risk of ectopic pregnancy
4. Risk of miscarriage
5. Adrenal gland dysfunction.

Since progesterone is produced with high amount right after the eggs has emerged to stimulate ovulation because abnormal levels of progesterone interferes with the ovulation of women menstrual cycle, causing infertility. If the test result indicates that you have abnormally high levels, it may indicate a false pregnancy or adrenal gland dysfunction, otherwise you may be suffering from ovulation problems or miscarriage.

BH. What is Radioimmunoassays (RIAs)

I. Definition
Radioimmunoassay (RIAs) is a very sensitive medical technique used to measure concentrations of antigens such as quantitating the binding, or the inhibition of binding, of a radio-labeled substance to an antibody which help your doctor to determine that the infertility is not or caused by hormone imbalance during menstrual cycle.

II. Procedure
By mixing a known quantity of an antigen and antibody with the sample of serum from a patient containing an unknown quantity, it helps to measure the interaction of testosterone, LH, FSH, prolactin hormones.

III. Diagnosis
After the uterine lining is shed and the previous menstrual cycle end. The surge of estrogen indicate the new menstrual cycle is begun. The levels of estrogen stimulate hypothalamus to secret gonadotropin releasing hormone (GnRH), it helps the pituitary gland to secret Follicle stimulated hormone (FSH) for production of eggs from the ovaries. When the eggs is mature, the production of luteinizing hormone (LH) causes mature egg being extruded from the ovaries a few days before ovulation and allows the cervix to produce the sperm friendly mucus, then the levels of progesterone surge to soften the lining of uterus for implantation of the embryo if fertilized, otherwise the uterine lining is shed and prepare the next menstrual cycle. Anything gone wrong in hormone secretion during this process will influence the quantitating the binding or the inhibition of binding, of a radio-labeled substance to an antibody and can be detected.

IV. Risk
No risk is known.

Recommended Reading

BI. What is Tubal patency test ?

I. Definition
It is the test to check the health of Fallopian tube and make sure there is no blockage in the tube with X ray examination.

II. Procedure
there are 3 types of tubal patency test
1. Hysterosalpingography (H.S.G.
Normally, dye is injected through the cervix, it then fill the uterus and flows into the Fallopian tube. if there is a blockage, the pressure may build up causing pain.

2. Gas Insufflation
An instrument is inserted into the canal of the cervix and carbon dioxide gas is flown into the cavity of the uterus. If the tube is not block, the initial rise in pressure is followed by a sudden reduction or otherwise it indicates blockage.

3. Laparoscopy
It is performed under a general anaesthesia as outpatient in the hospital. Under lapaproscopy, after tiny incision is made at the lower border of the umbilicus, the abdominal cavity is then expanded with carbon dioxide gas to create more space for your doctor to have a clean view of the pelvic organs, then an laparoscope which is inserted into the abdominal cavity and the uterus, tubes and ovaries are thoroughly inspected.

III. Diagnosis
Through the diagnosis, the tubal patency test allow syour doctor to see deep inside of the site for any tubal obstruction, if there is presented of any irregularity in the cavity of the uterus. However, this test cannot pinpoint the

existence of pelvic adhesion or implants which may be enveloping in the ovaries and preventing the egg from entering to the tubes.

BJ. What is Ultrasound ?

I. Definition
Ultrasound infertility test is defined as a test which uses high frequency sound waves to bounce off the pelvic region in order to check the process of egg production process during menstrual cycle.

II. Procedure
1. Ultrasound is a painless procedure and can be done in relatively short periods of time at your local clinic.

2. During a standard ultrasound, an ultrasound slender probe is inserted into your vagina. It very much like an insert of a tampon, if you feel uncomfortable about this process, you may want to insert the probe yourself. Ultrasound waves emitted by the probe travel up your vagina and bounce off your ovaries that provides a very clear image of your eggs and ovaries which you can view them at the screen.

III. Diagnosis
By viewing the process through ultrasound daily, your doctor can see when a woman ovulates such as when the egg matures, when the follicle ruptures,the thickness of the uterine lining, the quality of egg and any abnormal adhesion or implants existed in the uterine cavity. If there any abnormality is discovered during this scan, your doctor can determine what may be the causes for infertility such as hormone imbalance, irregular cells growth in the pelvic cavity such endometriosis adhesion, fibroid, cyst, etc.

This type of ultrasound is normally done for women who are in infertility treatments such as IVF

BK. What is Urinaryluteinizing hormone (LH) test ?

I. Definition
The Urinary luteinizing hormone (LH) test is used to check the levels of LH and identify the surge of LH just before ovulation so your doctor can determine when is the best time for a couple to have sex and the female partner to get pregnant.

II. Procedure
Urine is taken in the local clinic laboratory for examining the levels of LH

hormone.
There are some home LH detection kits called ovulation kits which help to monitor the LH hormone. By watching the surge of LH hormone, a infertile couple can pinpoint the days of sexual intercourse that coincidence with the ovulation, thereby increasing the chance of pregnancy.

III. Diagnosis
Since the levels of LH is vary through out menstrual cycle, but is normally highest around the time of ovulation. Your sample will be examined for the levels of LH hormone so your doctor can pinpoint to you when will be the best time to have sex and get pregnant. It also uses to timing of the ovulation for maximizing the chance of fertility.
For a couple in IVF treatment, it helps the specialist to determine when the eggs are mature and ready to be removed from the ovaries for artificial insemination.
If the result of lab analysis come back with low levels of LH hormone, then other tests or treatment may be required.

Chapter III - Types of Diagnosis Traditional Chinese Medicine TCM Perspective

A. Classical 5 Element Theories In Traditional Chinese medicine

I. Definition
The Classical 5 element theory has been used in traditional Chinese medicine for over 4000 years in determining all kinds of disease including infertility, because TCM treats the body as a whole identity. Any malfunction or disease of the body is considered as an imbalance of the 5 elements in the body. The 5 elements include wind, cold, heat, dry, and damp.

TCM diagnosis may contain the following:
1. General appearance
It is amazing that most TCM practitioners can feel some types of deficiency in your body by just looking at your facial appearance:
a) Physical appearance
b) Hair distribution
c) Your voice
d) Body build
e) Secondary sexual characteristics

2. Your body fat and fat distribution including fat around your breast
3. Thyroid enlargement

4. Irregular testes and penis
5. Infection and inflammation affecting the epididymis and prostate gland
6. Varicoceles
7. External genitalia

III. 5 element diagnosis
1. Wind
It is defined as qi obstruction in the body causing pain such as headaches.

2. Cold
Exposing yourself to cold may increase the risk of qi slowdown and reduce the energy flow in the body. Patients are considered cold if they are diagnosed with slow qi and lack of energy flow such as a slower heart beat, weaken immune system, kidney deficiency.

3. Heat
Exposing yourself to heat may increase the risk of energy overflow as well as speed up your body's function leading to infection and inflammation. The patient is considered to have 'heat' as the diagnosis when there is an overflow of energy, skin diseases, qi interruption, or the inability of the body's organs to discharge enough toxins.

4. Dry
This is considered as dehydration and significant dry skin. It may be caused by internal imbalances between qi, blood flow, yin, yang, and blockages of different energy pathways within the body.

5. Damp
Dampness is the indication of fluid and water retention in the body. It is considered as a common outcome of digestion that isn't efficient, causing diarrhoea and interfering with the natural downward movement of the contents of the stomach leading to heartburn and excessive saliva production. Dampness is normally caused by spleen qi deficiency.

B. 3 Main Organs In Traditional Chinese Medicine (TCM)

I. Definition
TCM considers the kidneys, liver, and spleen as the 3 main organs which have a direct effect in men and women's reproductive system. Any deficiency of the above organs may cause yin and yang qi imbalance leading to infertility.

II. Diagnosis
1. Kidney
The kidney influences the function of sexual desire and regulates the adrenal

gland in hormone production. Deficiency of kidney qi causes libido and irregular menstrual cycle, and abnormal menstruation.

2. Liver
In women, according to TCM, the liver is a vital organ in maintaining the levels of estrogen and progesterone thereby leading to normal ovulation and increasing the ability to release a healthy egg. Stagnation of liver qi also causes nervous system disorder including anxiety, stress, and depression, causing hormone imbalance and leading to infertility.

3. Spleen
The liver directly influences spleen function. Without a strong liver there is no treatment for spleen blockage and deficiency leading to abnormal implantation of the egg in the uterus lining.

Since TCM views our body as a whole, it is not about treating a part of the problem, unless it is necessary. Traditional Chinese medicine infertility treatment normally focuses on promoting the balance between organs, glands, and all other elements in the body.

C. What is " Wind " In Traditional Chinese Medicine

I. Definition
It is defined as qi obstruction in the body causing pain such as headache, sudden pain or blood obstruction including stroke and heart diseases.

III. Diagnosis
Wind-pathogen (An agent that causes disease), is belongs to the yang pathogen. It has the tendency expansing outward and upward and intruding the yang positions of the body. As wind, it moves quickly through out the body if there is any abnormal body motion leading to all the exogenous diseases the major cause of female infertility.

1. Sluggish Liver
Sluggish liver is caused by toxins accumulation over a long period of time leading to liver yin deficiency or blood deficiency resulting in obstruction of normal menstrual cycle, thereby increasing the risk of infertility in women. In men, the malfunction of the liver leading to reproductive disorder and pain in the testicle region.

2. Immune system
Weakened immune system is the main cause of extreme heat as resulting in infection and inflammation leading to sudden convulsions and high fever. The wind caused by extreme heat also interferes with sperm production in men. In women extreme heat wind may cause immune system to recognize sperm as foreign invasion and kill it.

3. Blood Deficiency
Wind which is caused by blood deficiency may cause over active of the uterine muscle leading to abnormal pain and cramps and increase the risk of infertility in both women and men alike.

Women who is diagnosis with infertility with explained causes, may have a wind problem in the abdominal region causing uterus muscle to contract leading to inability of uterine lining in fertilized egg implantation resulting in infertility and miscarriage.

D. What is " Cold" In Traditional Chinese Medicine

I. Definition
Cold belongs to the Yin pathogen and it tends to impair yang qi causing coagulation and stagnation in blood and muscle contraction as well as a weakened immune system, kidney function, and slowing heart beat as a result of slow qi and lack of energy flow.

II. Diagnosis
1. Weakened immune system
Since cold is the prevalent climate in winter, it often obstructs defensive yang qi, leading to a weakened immune system in fighting against the forming of radicals, bacteria, and virus resulting in an increased risk of the production of an antibody antigen. In men, it increases the abnormal functions of the reproductive system in sperm production as a result of the immune system attacking the body's own sperm.

2. Blood stagnation and coagulation
According to traditional Chinese medicine yang qi is vital in regulating blood and fluid in the body. As cold invasion, it causes low temperature in the body leading to sluggish blood flow and body fluid causing blood coagulation and fluid retention in men. In women, cold pathogen increases the risk of abnormal muscle contraction and pain.

3. Toxins accumulation
As the cold strikes, it causes the muscular striae and the sweat pores to close leading to difficult movements of the muscle and increasing the risk of toxins accumulating resulting in sluggish liver and immune system which are vital for regulating abnormal cell growth such as tumour, adhesion, and implants in the uterus and testes.

E. What is " Heat " In Traditional Chinese Medicine

I. Definition
According to traditional Chinese medicine heat-pathogen prevails in summer and pertains certainly to Yang. It tends to move upward and outward, impairs the body qi and fluid and is often accompanied by damp-pathogen

II. How heat pathogen effects fertility
Expose yourself in heat may increase the risk of energy overflow as well as speed up your body function leading to infection, inflammation and abnormal bleeding. Patient is considered heat are diagnosis with over flow of energy, skin diseases, qi interruption or inability of the body's organs to discharge enough toxins.

1. Kidney function
Since kidney is a second line defence of the body, accumulating heat in the body not only causes lost of fluid but also increasing the risk of kidney stone and abnormal function of kidney, if it is not treated. According to traditional Chinese medicine, kidney plays an important role in men and women reproductive function, deficiency of kidney yin, increasing the risk of sperm production and quality of sperm in men and distorting the normal menstrual cycle in women.

2. Liver function
Liver plays a vital role in regulating the production of certain hormone in the prostaglandins family, fire liver as abundant yang qi causes abnormal function of liver and wakes up the liver diseases leading to menstrual pain and cramps for women, distorting the menstrual hormone production and decreasing the chance of infertility. In men, it may cause abnormal ejaculation and sperm count.

Abnormal liver function also causes abnormal function of spleen, the vital organ for the reproductive system which plays an important role for conception.

3. Blood flow
Heat pathogen interferes with blood circulation in the body, most people with heat pathogen have symptoms of high blood pressure. Since it increases the blood flow uncontrollably, it causes not only nervous tension that can disturb women menstrual cycle, but also increases the risk of abdominal swelling and breaking off of the small vein leading to vagina abnormal bleeding in women. In men, it causes low sperm count.

4. Immune system
Since heat pathogen increases the heat in the body which causes lack of the yin and out flow of energy, leading to weakened immune system resulting in increasing the risk of infection and inflammation that cause accumulation of

free radicals and irregular cells growth, thereby increasing the risk of infertility.

F. What is " Dry " In Traditional Chinese Medicine

I. Definition
Pathogenic dryness prevails in autumn. This pathogen is dry in nature, tends to impair body fluid and the lung.

II. How dryness pathogen effects fertility

1. Lymphatic and kidney problem
Since dry is considered as dehydration, it causes abnormal lymphatic and kidney function, leading to more fluid loss, thereby, increasing the risk of dry skin, cervical mucus production, risk of kidney stone and infection of the urinary tract.

2. Respiratory system
Our lung requires moisture to function better, dryness decreases the lung function in oxygen absorption leading to weakened immune system in fighting the forming of free radicals, bacteria and virus and increasing the risk of nervous tension in hormone secretion, thus distorting the menstrual cycle and lowering sperm count.

3. Immune system
It may also increases the risk of abnormal white blood cells production, leading to over production antigen antibody attacking a man's own sperm and increasing the abnormal allergic reaction resulting in thickening cervical mucus.

4. Heart problem
Dryness pathogen makes the blood thicker than normal, thereby besides causing the heart to work harder leading to heart disease, but also making the blood to enter the capillaries more difficult resulting in interfering with ejaculation in men and abdominal blood stagnation in women.

G. What is " Dampness " In Traditional Chinese Medicine

I. Definition
Damp-pathogen is defined as a yin pathogen, it obstructs the flow of qi and damages the yang qi.

II. How damp pathogen effects fertility

1. Lymphatic and kidney function
Damp pathogen besides decreases the lymphatic function in regulating the body's fluid, leading to fluid remaining in the body tissue and causing weigh gain and breast tenderness as resulting of over production of certain hormones which distort the menstrual cycle in women. It also increases the abnormally urinary secretion causing weakened kidney that has directly effected in reproduction of sperm and erection.

2. Digestive system
Deficiency of yang qi increases the risk of digestive disorder that causes digestive system abnormality in absorbing vital vitamins and minerals resulting in nutrients deficiency, leading to hormone imbalance and increasing the risk of irregular menstrual cycle in women and test functions in sperm production.

3. Spleen qi deficiency
According to traditional Chinese medicine damp also attacks the yin localities, leading to spleen qi deficiency that causes damp pathogen symptoms resulting in insulin production disorder symptoms such as loss of energy, dizziness, decreases the production of red blood cell and increases the risk of abdominal pain and cramps in women and distorts the function of reproductive system in men.

Recommended Reading

H. What is Kidney function In Traditional Chinese Medicine

I. Definition
The kidneys are paired organs in our body. Besides maintaining the production of urine and urinary secretion, it also responsible for a number of other homoeostatic functions including re-absorption of glucose, amino acids, and production of hormones.

II. How kidney qi effects fertility
A. Kidney jing
Kidney jing is defined as a fluid like base substance which form the material basis for production of kidney qi. Beside helping to control the growth of bones, teeth, hair, brain development and sexual maturation in the childhood, it also plays an important role in regulating the reproductive function such

as fertility and normal development into adulthood.
According to traditional Chinese medicine, conception and pregnancy are regulated and controlled by kidney jing. weakening of kidney jing causes infertility, miscarriage and other reproductive problems.

B. Kidney qi deficiency
1. In men
a) Kidney yang deficiency
Kidney yang deficiency is defined as a imbalance of qi with abundant of yin, leading to abnormal function in urinary secretion and problem of reproductive system including erectile dysfunction and sexual libido. Symptoms of kidney yang deficiency also includes feeling cold, fatigue, loss of energy,etc. Since kidney plays an important role in sperm productive, deficiency of kidney yang decreases the quality of sperm.
b) Kidney yin deficiency
Kidney yin is also called primordial yin, true yin or true water. It's function is to keep our body cool and moist. Deficiency of kidney yin causes kidney stone, scanty urinary, dry mouth and loss of body fluid, leading to low quality of sperm production as resulting in increasing heat in the testes,

2. In women
a) Kidney yang deficiency
Since kidney plays an important role in regulating the women reproductive organs. Deficiency of yang may be caused by hormone imbalance or eating habit, thyroid diseases etc. resulting in prolonged menstrual cycle, pale appearance, frequent urine, low back pain, etc. and leading to abnormal hormone production in glands that interferes with normal fertility.

b) Kidney yin deficiency
As opposite to kidney yang deficiency, it is caused by over abundant of heat and fire in the body that red face appearance, dizziness, insomnia and abnormal menstrual cycle including light discharge with red and no clot as resulting of irregular blood flow in the body. It also distorts the reproductive hormone secretion including thick and sticky cervical mucus which is hostile to sperm invasion.

According to Chinese medicine, a couple are required to have a healthy kidney jing and a balance of kidney qi to conceive.

I. What is Liver Blood Stagnation In traditional Chinese Medicine

I. Definition
The liver is a vital organ in our body. Its functions are to help in detoxification, carbohydrate, fat and protein synthesis, and production of

biochemicals necessary for digestion.

II. How liver qi effects infertility
Liver blood stagnation or congestive liver is caused by over working liver and toxins accumulation in the liver as resulting of unhealthy diet such as excessive alcohol consumption, coffee, environment toxins and xenoestrogen leading to liver clogged up and sluggish function
1. Nervous tension
Liver plays an important role in fat and protein metabolism and maintaining the secretion of certain hormones in the body. Congestive liver fails to do that, resulting in increasing tension of nervous system including depression, anxiety leading to abnormal hormone secretion causing infertility.

2. Menstrual Disorder
As we know liver is vital in essential fatty acid metabolism, thereby helping in regulating the production certain hormone during menstrual cycle such as estrogen. Blood stagnation in liver distorts the normal hormone secretion procedure leading to abnormal menstrual cycle and causing infertility.

3. Irregular cells growth
Since liver is vital for helping immune system in fighting against forming of free radicals and foreign bacteria and virus, sluggish liver caused by blood stagnation decreases the immune functions as mentioned above leading to irregular cells growth including endometrial adhesion and implants.

4. Circulatory system
Sluggish liver causes insulin build up in the blood stream as resulting of liver inability in regulating the insulin production of pancreas leading to abnormal menstrual cycle and increasing the risk of infertility.

J. What is Spleen function In traditional Chinese Medicine

I. Definition

The humans' spleen also known as pancreas in western medicine is defined as an organ located in the abdomen of the body. It helps to
1. Remove and destroy the old, aged red blood cells.
2. Synthesize antibodies in the white pulp, and
3. Remove antibody-coated bacteria and blood cells from the circulation system.

II. How spleen function effects male infertility in traditional Chinese medicine

1. Liver
Liver has directed influentially in spleen function, without strong liver there is no treatment for spleen blockade and deficiency, leading to abnormal implantation of egg in the uterus lining.

2. Nutritional deficiency
Since spleen helps to transform carbohydrate synthesizing from the the liver to energy and distribute the nutrients to our body needs. Malfunction of spleen disrupts these processes, leading to nutrients deficiency and fatigue, dizziness and emotional stress.

3. Diabetes and blood flow
According to traditional Chinese medicine spleen plays an important role in providing our body qi through insulin secretion. Malfunction of spleen causes abnormal secreting of insulin disrupting the qi flow, causing blood stagnation in the liver and spleen and leading to diabetes and obstruction of blood flow to the abdominal region.

4. Luteal phase
The traditional Chinese medicine view spleen as important organ in helping the pituitary gland in secreting hormone after ovulation. In order to support the egg to be fertilized by the sperm, the luteal phase must be at least 10 days long. Deficiency of spleen obstruct the luteal phrase leading to deficiency.

5. Digestion and elimination
Spleen is view as the organ of digestion (nutrients distribution) and elimination (eliminating the body waste). Deficiency of spleen causes digestive disorder and toxins accumulation in the body, effecting the liver function and obstructing the normal menstrual cycle leading to infertility.

K. Types of Diagnosis of female infertility In Traditional Chinese Medicine

Women who seek help for conception with traditional Chinese medicine (TCM) may require to bring in all records of diagnosis, otherwise, you may have to go through some conventional diagnosis, if necessary. In fact, most women come to TCM may have already run through all types of conventional treatments without success or with unexplained causes. Besides personal medical history and medical exam, some conventional diagnosis may be required.

II. Diagnosis of female infertility in TCM
1. Deficiency kidney yin

Women with abnormal menstruation including light discharge such as red and without clots, emaciation, dizziness, red tongue with little fur, insomnia and rapid pulse are considered as deficiency of kidney yin.

2. Deficiency kidney yang
Women with prolong menstrual cycle, no menstrual discharge, lower back pain, lack of sexual desire and slow pulse are considered as deficiency of kidney yang.

3. Blood deficiency
According to traditional Chinese medicine, blood stagnation is caused by weakened spleen organ, thereby, reducing the spleen fucntion in blood formation causing not enough distributing to the body leading to no blood for menstruation. Women with symptoms of late menstruation with pale and scanty or absence of menstruation, dizziness, dry skin, pale tongue, pain in abdomen after menstruation and weak pusle.

4. Blood stagnation
Blood stagnation is normally caused by qi stagnation or qi deficiency in the liver leading to abdominal pain, clotted and dark menstrual flow, nerous tension, premenstrual breast tederness, a slight purple-tongue and wiry pulse.

KA. What is Deficiency of Kidney Yin In Traditional Chinese Medicine

I. Definition
Kidney yin also known primordial yin or true yin , is defined as the foundation of the yin fluid of the body, therefore it helps to moisten, nourish the organs and tissues and maintain the body fluid balance with fire of kidney yang.

II. How deficiency of kidney yin effect fertility
1. Lack of energy
Deficiency of kidney yin causes inability of kidney in stabilization of energy, leading to abnormal flow of energy, disrupting the blood flow to the body organs including the test in producing sperm and ovaries in egg production resulting in distorting the normal menstrual cycle in women and lessening the chance of fertility.

2. Blood Flow
Deficiency of kidney yin also increases the risk of irregular blood flow as the heart must work harder to provide more energy to our body needs, leading to abnormal function of capillaries and interrupting the normal function of small veins in the nervous system including dizziness, hearing problems and ringing in the ear. It also causes abnormal blood flow to the

reproductive organs resulting in distorting the normal menstrual cycle in women and sperm production in men.

3. Digestive system
It also causes abnormal digestive system in absorbing vital vitamins and mineral as resulting of lack of fluid which is necessary for digestive system in stomach acid secretion, leading to constipation and abnormal pain.

4. Burning sensation
People with kidney yin deficiency feel burning sensation not only in the body including the chest, but also see bright yellow color in their urine, leading to oxidative and kidney damage. If the problem is not treated, it may disrupt the production of sperm friendly mucus in women and sperm quality men.

5. High temperature
It also increases the body temperature that interferes with egg, cervical mucus production in women and sperm abnormalities in men.

III. Causes
1. Unhealthy diet
People who eat a lot of high energy food and spicy food are an ideal candidate to have kidney yin deficiency, because those foods increase the yang qi in the body and deplete the body's fluid.

2. Sexual tramitted diseases and frequent sexual activity
Sexual tramitted diseases increase the risk of infection and inflammation that causes the increasing of white blood cells in the body, leading to immunity malfunction of infertility. Frequent sexual activity drain the kidney energy in maintaining a good reproductive system leading to infertility.

3. Medication
Drug abuse and some medication may damage kidney thus decreasing the function of kidney as an reproductive organ for fertility.

4. Stress
People who work long hours and stress environment work place may increase the risk of draining our energy flow and qi staganation leading to abnormal kidney function.

5. Aging
Aging also causes kidney yin deficiency, as our kidney no longer function like we are young.

IV. Symptoms
1. Dizziness,
2. Weak pulse
3. Hearing problems,
4. Dry mouth and throat,
5. Hot sensation in the palms, soles and chest,
6. Sweating, constipation, and seminal emission.
7. The tongue is red and covered with a light coating of fur

KB. What is Deficiency of Kidney Yang In Traditional Chinese Medicine

I. Definition
Women with prolong menstrual cycle, no menstrual discharge, irregular menstrual cycle, lower back pain, lack of sexual desire and slow pulse are considered as deficiency of kidney yang.

II. Causes
1. Unhealthy diet
People who like to eat cold food and drink deplete the levels of yang qi in the body causing kidney yang deficiency.

2. Internal Cold
Internal cold may be caused the immune allergic reaction in fighting the foreign virus and bacteria leading to cold sensational feeling in some people.

3. External cold
Remaining in the cold place or swimming in the cold water for a prolong period of time may cause yang qi depletion leading to abnormal function of kidney.

4. Kinney damage
Kidney damage caused by what ever reason may distort the balance of yin and yang qi in the kidney, sometimes it may lead to kidney yang deficiency.

5. Unhealthy life style
Unhealthy life style such as sleep late at night, irregular sleeping habit and frequent sexual intercourse may increase the risk of kidney yang deficiency.

6. Previous miscarriage and abortion
According to traditional Chinese medicine miscarriage and abortion not only damage the reproductive organ but also deplete the kidney yang qi caused by over whelming blood loss.

III. Symptoms
There are hundred symptoms of kidney yang deficiency including

1. White coat on tongue
2. Pale, frigid appearance
3. Achy pain in joints or muscles
4.Cold extremities
5. Poor digestion
6. Tendencies toward stagnation
7. Depression
8. Emaciation
9. Obesity
10. Etc.

KC. What is Deficiency of Blood Deficiency In Traditional Chinese Medicine

I. Definition
Blood deficiency is defined as not enough blood to distribute to our body organs needs.

II. How blood deficiency in TCM effect fertility
When there are any deficiency in the body, such as blood deficiency, our brain primitive reaction for survival decreases the blood flow to the reproductive organ leading to reproductive system working at minimum state or completely shutting off.
1. In men
Blood deficiency caused not enough blood flow into the test region leading to all kind of reproductive system disorder including little sperm count and lower the sexual desire.
2. In women
Blood deficiency leads to abnormal function of reproductive system in regulating menstrual cycle that disrupts the production of egg or produces poor quality egg and makes uterine mucus hostile to sperm
III. Causes
Tradition Chinese medicine view blood deficiency is caused by weakened spleen organ, thereby, reducing the spleen function in blood formation, leading to causes not enough blood to distribute to the body such as absence of (no blood for) menstruation.

IV. Symptoms
There are many symptoms of blood deficiency including
1. Palpitations caused by your heart has to work harder, because of no enough blood in the body.
2. Forgetfulness and poor memory caused by not enough oxygen delivering to the nervous cells need
3. Insomnia: because of brain cells can not transmit information between themselves, leading to over production of certain hormones.

5. Shortness of breath: you lung has to harder to provide oxygen to your body needs.
6. Dizziness and fatigue is due to oxygen and energy shortage.
7. Constipation due to lack of fluid in the body
9. Pale complexion: lack of blood

Recommended Reading

KD. What is Deficiency of Liver Blood Stagnation In Traditional Chinese Medicine

I. Definition
Blood stagnation is defined as qi stagnation or qi deficiency in the liver. In traditional Chinese medicine, blood stagnation is commonly linked to a wide variety of heart and menstrual irregularities because of blocking of the blood flow or blood become static.

II. How Blood stagnation effects fertility in TCM
1. Blood stagnation is caused by liver qi imbalance, it reduces the liver function in regulating the secretion of certian hormone in the prostaglandins family thereby, increasing the risk of abdominal cramps causing blood stagnation in the adnomial region.

2. Liver also helps to regulate the secretion of insulin from the spleen, abnormal function of liver increase the risk of diabetes leading to blood stagnation in the reprodutive organ.

3. imbalance of liver qi also cause inability of liver in fat and protein metabolism leading to nervous tension and increasing the risk of hormal imbalance causing irregular menstrual cycle.

III. Causes
1. Chronic Fallopian tube inflammation
The prolong period of inflammation causes blood static as resulting of increasing blood flow to the Fallopian and distort the immune system in fighting against foreign bacteria and virus function leading to blood stagnation.

2. Liver function
Liver is vital for waste remove. Abnormal function of liver causes old estrogen or other hormone as well as old blood remaining in the body organs leading to blood stagnation and increasing the risk of menstrual irregularity.

3. Irregular cells growth
Blood stagnation may be caused endometriosis, fibroid or tumurmay block the blood flow in the organ leading to blood stagnation.

4. Emotional factors
Emotional stress such as grieving may cause blood static, thereby increasing the risk of blood stagnation.

IV. Symptoms
There are many symptoms of blood stagnation including
1. Abdominal pain
2. Clotted and dark menstrual flow
3. nervous tension
4 Premenstrual breast tenderness,
5. A slight purple-tongue
6. Wiry pulse.

L. Types of Diagnosis of Male Infertility In traditional Chinese Medicine

Men who seek help for conception with traditional Chinese medicine (TCM) require to bring in all records of diagnosis, otherwise, you may have to go through some conventional diagnosis, if necessary
II. Diagnosis of male infertility in TCM
1. liver qi stagnation
Liver meridian blockage in the local area (genital) makes it difficult to ejaculate, related with impotence and low libido

2. kidney deficiency
a) Kidney Yang deficiency
Men are considered kidney yang deficiency if they have symptom of low sexual desire, weak ejaculation, impotence, seminal emission, low sperm count, slow sperm mobility.

b) Kidney yin deficiency
According to TCM kidney if vital to maintain a healthy reproduction system in men and women alike. Infertility caused by kidney yin deficiency including symptoms seminal emission, slow sperm mobility, low sperm count.

3. Stagnation of qi and blood
Stagnation of qi and blood is normally caused by weakened liver in fat and protein metabolism leading nervous symptoms including worriness, over-thinking, stress, chronic illness and in helping the in spleen blood formation causing impotence, low sperm count, short sperm life, slow sperm mobility.

4. Heat and dampness accumulation in the lower burner
Male suffered from heat and damp diseases is normally caused by over alcohol drinking and unhealthy diet including high in saturated and trans fat and spicy food leading to generally overweight, sperm count is low, may be sperm deformities

Recommended Reading

LA. What is Liver Qi Stagnation In Traditional Chinese Medicine

I. Definition
Liver meridian blockage in the local area (genital) makes it difficult to ejaculate, related with impotence and low libido.

II. Causes
1. Stress
Over stress increase the secretion of certain hormone which blocks the flow of qi in the liver and interfere the function of normal ejaculation leading to sexual dysfunction.

2. Environment toxins
Environment toxins enter our body and accumulated in the liver organ leading to liver malfunction.

3. Unhealthy diet
Men eat a lot of saturated and trans fat causing fat liver which interferes the function liver qi in maintaining the function of the men reproductive system leading to low sperm count and sperm quality.

4. Excessive drinking
Moderate drinking may help to improve liver function and increase blood flow, excessive drinking damage liver cells leading to liver qi stagnation causing all kinds of health problem including infertility.

III. How Live qi Stagnation Effects Fertility
1. Sexual dysfunction
Blood stagnation reduce blood flow to the blood veins in the penis leading to sexual dysfunction.

2. Reproductive disorder
It also decreases the blood flow to the reproductive organs which disrupts the reproductive system in production of sperm including abnormal sperm, low sperm count, etc and increases the risk of immunity causes of infertility.

3. Sexual desire
Qi stagnation also interferes with production of hormone in the body including low levels of testosterone leading to sexual libido.

LB. What is Kidney Yang In Traditional Chinese Medicine

I. Definition
Kidney Yang deficiency
Men are considered kidney yang deficiency if they have symptom of low sexual desire, weak ejaculation, impotence, seminal emission, low sperm count, slow sperm mobility.

II. Causes
A. Causes of kidney yang deficiency
1 Unhealthy diet
As we known, we live in the society, where everything we drink are mostly cold including milk. It has a danger effect in the male body as it depletes of the yang qi which is needed to counter the the cold effects of abundant yin, leading to kidney yang deficiency. If one day, our yang qi production from the kidney jing no longer working well, it will cause male symptoms of infertility

2. External factors
a) Working in the cold environment such as fish, poultry and meat processing plants may deplete the kidney yang as our body require to produce yang qi constantly to counter the external cold.
b) People stay in the cold place for prolong period of time may also have the same effect as people working in cold environment.

3. Frequent sexual activity
According to traditional medical medicine, sexual intercourse helps to improve blood circulation and production of certain hormones which are necessary for our health. It also helps to balance the kidney yin qi but frequent sexual activity depletes the kidney jing which is vital for hormone and sperm production, leading to low sperm count or semen with no sperm

as well as kidney diseases.

III. How kidney deficiency effects male fertility
1. Abnormal sperm production
We need harmony in our body as well as balance of the yang and qi in the kidney. Deficiency of kidney yang causes inability of the kidney jing in maintaining the normal sperm production, leading to low sperm count, slow sperm mobility or semen with no sperm.

2. Sexual dysfunction
According to traditional Chinese medicine, kidney is vital to maintain the healthy function of the reproductive organs including the penis. Depletion of kidney yang qi interferes with the folowing:
a) Sexual libido
Since we know, kidney is important in regulating the production of growth hormone as we mentioned in previous article. Deficiency of kidney yang causes low levels of testosterone in the body leading to sexual libido.

b) Impotence
Depletion of kidney yang also slow down the blood circulation in our body including the blood flow to penis, leading to sexual impotence.

c) Ejaculation
Kidney yang is vital in conserving energy for our body needs including the reproductive organs. Loss of kidney yang qi for a prolong period of time leading to low energy including energy needed for healthy ejaculation.

IV. Symptoms
As we mentioned in the above definition.

LC. What is Qi And Blood Stagnation In Traditional Chinese Medicine

I. Definition
Stagnation of qi and blood is normally caused by weakened liver in fat and protein metabolism, and in helping the spleen in blood formation, leading nervous symptoms and reproductive problems, including worriness, over-thinking, stress, chronic illness, impotence, low sperm count, short sperm life, slow sperm mobility.

II. Causes and effects of qi and blood stagnation
1. Unhealthy diet
a) Unbalance of levels of essential fatty acids in our body interferes with the liver in essential fatty acids metabolism, leading to over production of certain hormones that causes lower levels for other hormone which are important to maintain healthy kidney in production of good quality sperm.
b) Saturated fat and trans fat decreases the liver function in fat and protein

metabolism, thereby increasing the risk of nervous tension causing hormone imbalance including levels of testosterone leading to low quality sperm production.

c) We all know that excessive alcohol drinking for prolong period of time will kill the liver, leading to impotence and low sexual desire.

2. Liver diseases
Liver diseases such as hepatitis may decrease over all functions of liver if it is not controlled.

3. Abnormal function of spleen
No matter how healthy the spleen, without the cooperation of the liver, it causes abnormal spleen in insulin production, leading to sticky blood and the risk of diabetes.

III. Risk
As we mentioned in the definition.

LD. What is Kindney Yin In Traditional Chinese Medicine

I. Definition
According to TCM kidney if vital to maintain a healthy reproduction system in men and women alike. Infertility caused by kidney yin deficiency including symptoms seminal emission, slow sperm mobility, low sperm count.

II. Causes of kidney yin deficiency
1 .Unhealthy diet
As oppose to yang deficiency, It is caused by men who love to hot and spicy food leading to heat accumulation in the body causing yin deficiency.

2. External factor
Working in the hot environment causes the depletion of fluids in the body including the kidney leading abundant yang qi production.

3. Low sexual activity
Frequent sexual activity increases the risk of yang deficiency, low sexual activity causes energy overly accumulation in the reproductive organ, leading to yin deficiency.

III. Effects of kidney yin deficiency
1. Abnormal sperm production
As we mentioned in the previous article, increasing yang qi or temperature in the body interferes with the production and quality of sperm causing slow sperm mobility, low sperm count.

2. Sexual dysfunction
a) Seminal emission
Seminal emission is a pattern in which the semen of a man emits frequently without making sexual activities. Since older sperm are replaced by new sperm production every day. Low sexual activity (no ejaculation for a prolong period of time) causes abundant sperm in the reproductive organ, leading to seminal emission with low quality sperm being ejaculated.

IV. Symptoms
As we mentioned in the article definition

Chapter IV - Infertility Treatment (Definition, Types, Types, Causes, Risks and Side Effects) In Conventional Perspective

A. Hormone Imbalance

I. Definition
Conventional medication used to treat hormone imbalance containing agents which help to stimulate the ovaries in mature egg production, thereby increasing the chance of pregnancy for infertile couple. The medication is only given to women who are diagnosed with ovulation dysfunction.

II. Types of medication
1. Progesterone supplement
Types of medication specially used for women with luteal phrase deficiency (lasts under 10 days and it is considered a luteal phase deficiency) It helps to increase the levels of progesterone, thereby, preventing the abnormal developing of uterine lining and interfering with fertilized egg implantation.

2. Ovulation introduction agent
A medication is used for women with highly irregular ovulation cycle including not ovulation at all. It is used in the day 5 to 9 of the cycle effective for younger women with successful rate over 90% but only about 35% actually conceive.

3. Follicle-stimulating hormone (FSH)
This types of medication are prescribed for women with ovation disorder to stimulate follicle and egg production. It is recommended that using these drugs including Gonal-f, Follistism, Fertinex and Metrodin, should be closely monitored by your doctor in order to prevent hyperstimulation of ovaries. They are used widely for intrauterine insemination.

4. Human menopause gonadotrophins (HMG)
Medication such as Menopur, Pergonal, Humegeon. etc. help women who do not ovulate regularly to stimulate the ovaries to produce more than one egg by working directly on ovaries to stimulate follicle development.

5. Humam chorionic gonadotropin (HCG)
HCG is a type of medication made directly from placeneta of pregnant women. It is synthesis chemically similar to LH, leading to increase or surge of LH hormone and triggering ovulation resulting in increasing the egg production and supporting uterine lining in fertilized egg implantation. Medication include Novarel, and Profasi.

6. Gonadotrophin-releasing hormone (GnRH)
It helps to regulate the pituitary gland in production of , FSH and LH hormone, thereby decreasing the risk of ovulation in the wrong time. In other word, It stimulates the pituitary gland to produce FSH and LH for women who do not ovulate at all. Medication include Fertrel and Lutrepulse.

a) Agonist
The medication (Leuprolide and Synarel) is used to blocks the egg production by the ovaries by regulating the hormone secretion until the egg to reach certain size, thereby increasing the quality of egg and preventing the release of premature egg for some women.

b) Antagonist
By regulating the production of FSH and LH from pituitary gland, it decreases the surge of LH that triggers ovation at the wrong time. It is used when a women undergoes fertility procedure for artificial insemination, so her doctor can better predict the timing of ovation for egg retrieval.

7. Prolaction medicine
For men and women who suffer infertility because of over production of prolactin hormone resulting in interfering the production of FSH and LH, leading to abnormal ovulation in women and low quality sperm in men.

III. Side effects
The common side effects of above medication include
1. Dizziness
2. Hot flashes

3. irregular menstruation
4. Headache
5. Insomnia
6. Irritability
7. Vomiting
8. Etc.

IV. Risk
1. Complication
2. Ovarian hyper stimulation
3. Nervous disorder
4. Ectopic pregnancy
5. Ovarian twisting and cancer
6. Cyst development
7. Etc.

Almost 100% of women who take these types of medication will ovulate, but not all women will get pregnant. If a couple can not conceive after the infertile female taking the treatment in their first 6 treatment than the chance of pregnancy is reduced by 50%.

B. Types of Non Surgical Infertility Method

If a couple can not get pregnant after 1 year of unprotected sex or carry the fetus to full term, they are considered as infertile couple. Most people under this circumstance, they will seek help from conventional doctor. After lengthy examination and diagnosis, if non surgical problem is found, then the followings are recommended by their specialist depending to what has been diagnosed
I. Definition
Non surgical infertility problem is considered as aproblem which can not be treated by medication and surgery such as impotence and sexual dysfunction in men and hyperproclatinemia. The fertility of a couple is assisted by some types of assisting reproductive technologies.

II. Types of artificial inseminations
1. Intra cervical insemination
Artificial insemination (AI) or intra cervical insemination is the process by which sperm is placed into the reproductive tract of a female for the purpose of impregnating the female by using means other than sexual intercourse.

2. Intrauterine insemination
Intrauterine insemination is defined as the selection of good quality sperm from a infertile male sperm semen by injecting the good quality sperm fluid into the uterus of his female partner, thereby increasing the chance of sperm

to reach the Fallopian tubes where fertilization of the egg occurs.

3. Gamete intrafallopian tube transfer (DIFT)
Gamete intrafallopian transfer (GIFT) is a technique which places one egg in the Fallopian after removing from the ovaries along with the sperm semen of her male partner.

4. Zygote intrafallopian tube transfer (ZIFT)
It is a procedure which is often used to treat infertility, if diagnosis found that there is blockage in the female partner Fallopian tubes that prevents the sperm to fertilize the mature egg. Under zygote intrafallopian tube transfer (ZIFT), after egg cells are removed from a woman's ovaries, it is put in vitro fertilized and finally the zygote is placed into the fallopian tube by laparoscopy.

5. Tubal embryo transfer (TET)
By transferring the more advance embryos (cleaved embryos) into the female partner Fallopian tubes, it increases the chance of fertility after achieving fertilization in the laboratory. It is only suitable for women who have at least one healthy Fallopian tube.

6. Intrasytoplastic sperm injection (ICSI)
By injecting only one quality sperm into the egg for fertilization. Intracytoplasmic sperm injection is commonly used only for male whose sperm are diagnosis with egg penetrating problem as a method of in vitro fertilization.

7. Testicle sperm extraction (TEST)
Testicular Sperm Aspiration (TESA) is most commonly used for male who for what ever reasons, has problem in ejaculating, or whose sperm contain little or no living or motile sperm, but with good sperm in the testicles. By collecting the sperm semen directly from the testicles, the fertilization process can occur in vitro fertilization (IVF) by using the intrasytoplastic sperm injection method.

8. Assisted Hatching
By collecting egg from ovaries from the infertile woman and after the egg is fertilized in vitro fertilization (IVF), the assisted hatching helps the embryo hatch out of its protective layering and artificially implants into the uterus.

9. Cryopreservation
For what ever reason some couple decide to have children in the future, they may want to use the cryoptresevation to freeze the eggs or sperm in the sub-zero temperatures, such as between 77 K or −196 °C. Most comom cryppreservation includes
a) Freezing sperm

b) Freezing embryo
c) Freezing eggs
d) Freezing ovaries

C. Types and Risks of Conventional Surgery In Treating Infertility

I. Types of conventional surgery for infertility
1. Laparotomy microsurgery
Laparotomy microsurgery is surgical procedure which helps to remove the endometrial scar tissues which in some ways interfere with the female fertilization process by reconstructing or repairing the Fallopian tube using a microscope.

2. Laparsoscope
After a small incision, the laparoscope is inserted for the doctor to view the pelvic organs. If any abnormality is found, another incision is needed for the doctor to remove any scar tissue, endometriosis or cyst, etc. It helps your doctor to have a clean view of your abdomen and repair the blockage of the fallopian tubes, if necessary.This procedure is often used to treat female infertility with blockage of fallopian tubes and endometriosis .

3. Hyteroscope
By using a fiber optic scope connecting to the hyteroscope and stretching the cervical canal, your doctor has a clean view of your uterine. If any abnormality is found such as fibroids, polyps, and scarring, hysteroscopy, they will be is remove, as they may obstruct the fertility processes. Hysteroscopy is routinely performed on an outpatient setting and the recovery time is typically between 2-3 days.

4. Falloposcope
By inserting a tiny flexible fibre-optic scope through the cervix, uterus and into the Fallopian tubes, you doctor can view your fallopian clearly. It is performed in out patient setting, if your doctor suspects there are tubal obstruction problem which interferes with the egg fertilization. It is often used to determine whether fallopian corrective surgery or IVF is the better treatment for infertility.

II. Risks
Like other surgeries, there are always some risks in reproductive diagnosis and surgery including
a) Infection
b) Bleeding
c) Reactions to anaesthesia
d) Damage to the other reproductive organs such as. intestine or urinary tract.

D. Types of Medication Treatment In Conventional Medicine
DA. Progesterone Supplement: Definition, Effects, Side Effects and Risk

1. Definition
Progesterone is a type of hormone produced in our body in regulating the menstrual cycle. Women body start to produce progesterone just before ovation in order to make mucus friendly to sperm invasion. The rise of levels of progesterone after ovulation helps to soften the uterine lining for preparation of fertilized egg.

2. How progesterone supplement effects infertile women
Types of medication specially used for women with luteal phrase deficiency (lasts under 10 days and it is considered a luteal phase deficiency) leading to increasing risk of abnormal development of uterine lining and interfering with fertilized egg implantation.

a) Uterus Lining
The rise of levels of progesterone by using progesterone supplement increases the softness of the endometrium which is vital for egg implantation. With enough progesterone, the endometrium is not soft enough for the egg to attach to it, leading to early miscarriage.

b) Unfriendly to Sperm
It helps to increase levels of progesterone just before ovulation that stimulates the expansion of tiny glands in the endometrium leading to production of uterine fluid which helps to nourish sperms and allow sperm to travel to the Fallopian tube for egg fertilization. Deficiency of progesterone causes sticky mucus which is hostile to sperm invasion.

c) Egg Movement
progesterone supplement boost the levels of progesterone, because after fertilization, the fertilized moves from the fallopian tube to the uterine and ready for implantation. without enough levels of progesterone, the uterine mucus may interfere with that movement, leading to miscarriage.

4. Maintaining pregnancy
it helps the levels of progesterone remain high during the last part of menstrual cycle, if the pregnancy occurs, because it is vital for embryo development. Deficiency during pregnancy causes abnormal development of embryo resulting in miscarriage.

3. Side effects
Although progesterone helps to increase the chance of fertilization, it causes some side effect including

a) Blood clots in the lungs (sudden shortness of breath) and legs, or even stroke (blocking the blood circulation)
b) Chest pain.
c) Blurred vision.
d) Numbness or tingling in the arms or legs.

4. Risk
a) Breast cancer
b) Heart disease and strokes

D.B Ovulatory Dysfunction Agent-Definition, Effect and Side Effects of Conventional Medication In Treating Hormone Imbalance

1. Definition
Since ovulatory dysfunction is one of the most common causes for infertility in otherwise fertile couples. Ovulatory dysfunction medication is defined as conventional medication which helps to restore the successful ovulation resulting in fertility.

2. How Ovulatory dysfunction agent effects infertile women
a) Stimulating the production of LH and FSH
The medicine inhibits the levels of estrogen that causes the pituitary gland to produce more FH and FSH leading to production of follicle in releasing the mature eggs as resulting of man made ovulation.

b) Irregular menstrual cycle
While it helps to stimulate the production of LH and FSH by the pituitary gland, it also helps to restore the normal menstrual for women, if the causes of infertility is irregularly related problem.

c) Egg production
Ovulatory dysfunction agent also helps to trigger eggs production, it is used often for women, if the mature egg production is the underline causes of infertility.

d) Luteal phrase deficiency
Women with shorten of luteal phrase is usually with low levels of progesterone as resulting of interfering of mature egg production or abnormal of FH and FSH hormone. The medication increases the production of FH and FSH, leading to the surge of levels of progesterone resulting in correcting the luteal phrase that is vital for egg implantation.

3. Side effects
a) Hot flash as resulting of low levels of estrogen

b) Mood swing caused by production of FH and FSH from the pituitary gland
c) Breast tenderness, shorten of breath and vision problem as resulting of high levels of progesterone.
d) Ovarian cysts as resulting of over stimulating the production of egg during ovulation, it is a cyst-like structure called a follicle is formed inside the ovary

4. Risks
The only risk is multiple birth.

DC. Follicle-stimulating hormone (FSH): Definition, Effects, Side Effects and Risk

1. Definition
Follicle-stimulating hormone (FSH) is made from purified urine of postmenopause women. It is uses to treat ovulation disorder and stimulate the follicle and egg production.

2. How follicle-stimulating hormone (FSH) effects infertile women
The medication if only given for women with ovulation problem such as without responding to the ovulatory dysfunction medicine but with high levels of LH as we mentioned in the previous article
a) Follicle enhancer
Since follicle-stimulating hormone (FSH) secreted by the anterior pituitary gland as resulting of secreting of gonadotropin-releasing hormone, low levels of GrNH in the women body may causes little secreting of FSH leading to low levels o f FSH and interfere with the ovulation as well as development of follicles that are vital for production of eggs from the ovaries.

b) Egg production
Beside helping the production of follicles, it also helps to improve the production of mature and assists mature egg extruding to the Fallopian tube that are vital for the women to conceive.
Women who undergoes the follicle stimulating hormone treatment is required to be monitored closely by their doctor.

III. Side effects
Study show that FSH medication increase the risk of menstrual change and amenorrhea including vagina bleeding and abnormal pain and cramps.

IV. Risks
a) Ectopic pregnancy as resulting of over production of mature eggs being extruded into the Fallopian tube or somewhere else.
b) Miscarriage as resulting of not enough progesterone to support the

development of embryo
c) Ovarian cysts

Almost 100% of women who take these types of medication will ovulate, but not all women will get pregnant.

DD. - Human menopause gonadotrophins (HMG): Definition, Effects, Side Effects and Risks

1. Definition
Human menopausal gonadotropins (HMG) contain both (LH) luteinizing hormone(LH) and follicle stimulating hormone(FSH) which are used for women with ovulation disorder by triggering the ovulation in production of follicle and egg. HMG is one of the fertility medical treatment which may be necessary for women, if artificial insemination is required such as IUI, IVF and other ART.

2. How HMG effects infertile women
By using the HMG to increase the levels of LH and FSH as resulting of inability of pituitary gland in LH, and FSH production, it helps to stimulate ovulation as we mentioned in previous article.
a) Ovulatory disorders
Ovulatory disorder ussually caused by low levels of LH and FSH as resulting in either of low levels of estrogen or damage of hypothalamus in releasing of GrNH, HMG increases the levels of LH and FSH directly without the need of hypothalamus secretion.

b) Pituitary gland abnormality
For what ever reason, some women's pituitary gland is not responsed to the secreting of the GrNH in production of LH and FSH or low levels of LH and FSH as resulting of pituitary gland malfunction. HMG increases levels of FH and FSH naturally, leading to ovulation.

c) Eggs production
HMG besides enhancing ovulation, it also acts directly to the ovarian in follicle and mature eggs production.

3. Side effects
a) Hyperovarian stimulation as resulting of over production of follicles inside of the ovaries.
b) Nervous disorder as resulting of interfering of hormone production. Symptoms include mood swing and depression.

4. Risk
Increasing the risk of multiple pregnancy by 40% of all pregnancies.

DE. Humam chorionic gonadotropin (HCG): Definition, Effects, Side Effects and Risks

1. Definition
Humam chorionic gonadotropin (HCG) is either made from urine of pregnant women or hormone produced by human placenta. It is used conjunction with FSH and HMG as we mentioned in previous article.

2. How humam chorionic gonadotropin (HCG) effects fertility
a) Ovulation
The medication is synthesis luteinizing hormone (LH) that helps to increase the production of LH and induce ovulation by controlling hyperstimulation.
b) Support the uterine lining
Beside helping in eggs production, it also increases the normal development of uterine lining that is essential for fertilized egg implantation. without supporting from the softening of endometrium, the fertilization process may end in miscarriage.

3. Side effects
a) Hot Flash caused by high levels of LH
b) Headache caused by over stimulation of the medication which interfere with the outer brain nervous system
c) Fluid retention as resulting in interfering with the function of lymphatic and kidney function in regulating fluid in the body
a) Others such as bloating and mild nausea.

4. Risks
a) Ectopic pregnacy caused by over stimulation of more than one egg.
b) Multiple pregnancy
As we mentioned in a)
c) Spontaneous abortion
As resulting of multiple fertilizing egg or inability of endometrial uterine lining in supporting too many fertilization eggs or abnormal function of endometrium.
d) Premature delivery
As resulting of many eggs have developed, leading to little space in the uterus for the fetus to grow.

DF. -Gonadotrophin-releasing hormone (GnRH): Definition, Effects, Side Effects and Risks

I. Definition
Gonadotrophin-releasing hormone (GnRH) is a synthesis GnRH hormone which helps to replace or increase the levels of GnRH in stimulating the production of LH and FSH by the pituitary gland

II. How Gonadotrophin-releasing hormone effects infertile women
GnRH may be used for infertile women, after HCG and ovulation dysfunction medication have been failed to stimulate the women reproductive ovulation. The process of LH and FSH production are controlled by the size and frequency of GnRH pulses.

1. Ovulation
At the begining, synthesis GnRH stimulates the low frequency GnRH pulses that cause the pitiutary gland to release FSH that helps to stimulate ovulation and the production of follicle and egg.
2. Egg Extrading
As the follicle mature, synthesis GrNH helps to increase the production of estradiol that stimulates the high frequency GrRH pulses and stops the putuitary in secreting FSH and increases the production of LH leading to egg releasing into the Fallopian tube.

3. Side effects
a) Hot flashes.
b) Mood swings.
c) Vaginal dryness.
d) Decreased sexual interest.
e) Insomnia.
f) Headaches.

4. Risk
a) Bone loss
b) Heart disease
Raising the level of LDL cholesterol and decreasing your HDL cholesterol.

DG. Prolaction Medicine: Definition, Effects, Side Effects and Risk

1. Definition
Prolactin medicine is a synthesis prolactin hormone which inhibits the levels of prolaction hormone in the body. High levels of prolaction may interfere with ovulation leading to infertility.

2. How progesterone supplement effects infertile women
If the levels of prolactin hormone is high, which causes abnormal function of pituitary gland in thinking the women is in pregnancy state, leading to low levels of FSH and LH.
a) Restore normal function of FSH production
By inhibiting the levels of prolactin in the body, the medication helps to restore the normal function of pituitary gland in production of FSH, leading to ovulation and follicle production from the ovaries.
b) Restore the normal function of LH production

Since the levels of prolaction is dropped to normal levels, the process of hormone production by the pituitary gland is not disrupted. After eggs have been produced, the pituitary gland switch to to the production of LH, leading to mature egg being extruded into Fallopian tube for fertilization.

3. Side effects
a) Low blood pressure
b) Nervous tension includes insomnia and dizziness.

4. Risk
a) Breast cancer
b) Stomach ulcers or bleeding from the stomach
c) Fibroids
d) The possibility of a tumour

Recommended Reading

E. Types of Artificial Inseminations (Non Surgical Problems)
EA. Intra cervical insemination

1. Definition
Intra cervical insemination(ICI) is defined as a advance technological infertility treatment by placing the male partner sperm directly into the female partner cervix, thereby increasing the chance of sperm swimming through the uterus and into the Fallopian tube. ICI is less expensive than other artificial insemination and can be performed by your reproductive specialist at his or her office.

2. How Intra cervical insemination effects infertile women
In order to make the operation to success, besides the problems as mentioned above, the couple must be diagnosed and considered having no underlying problems with other reproductive organs
Taking and analyzing blood and urine of the female partner is necessary to monitor the surge of the levels of luteinizing hormone (LH), so the reproductive specialist can pinpoint the days of ovulation. When the day of ovulation is predicted, the specialist will inject the already prepare sperm into the cervix of the female partner within 24 hours and again at the 36 hours.
This procedure is painless, therefore no anaesthesia is required and it can be

performed by your reproductive specialist at his or her office

3. Risk
a) Infection caused by medical instrument used.
b) Uterine cramps caused by medical instrument damages the uterus during operation.
c) Multiple pregnancy caused by more than one mature eggs are fertilized
d) Ovarian overstimulation syndrome caused by medication used to stimulate eggs production from the ovaries.
ICI is less expensive than other artificial insemination. The chance of conceive through ICI is between 5-30 percentage, depending on the sperm count of the male partner as well as healthy fallopian tube of the female partner.

EB. -Intrauterine insemination

I. Definition
Unlike intracervical insemination, intrauterine insemination (IUI) is defined as placing the warmed prepared sperm into the woman's uterus 2 -3 days before and after ovulation with the purpose of getting the sperm closer to the egg, thereby increasing the chance of fertilization.

II. How intrauterine insemination works
a) Natural ovulation
If a woman has normal ovulation, then her doctor may suggest to place the male partner sperm into the cervix of the women, normally 2 days before and after ovulation. In order to increase the chance to conceive, your doctor may closely examine the woman menstrual cycle and predict the day of ovulation or the woman will be given instruction how to calculate and predict the coming ovulation.

b) Medication induce ovulation
After the ICI decision is made and the female partner is considered to have problem with ovulation including irregular ovulation, then she will be given medication to stimulate the production of multiple mature eggs and the process of eggs production is closely monitored by transvaginal ultrasound. After the ovulation day is predicted, her doctor will inject her male partner (already prepare) into the the women cervix. This procedure is also painless, therefore no anaesthesia is required.

3. Risk
a) Infection
b) Uterine cramps
c) Multiple pregnancy
d) Ovarian over stimulation syndrome

The chance of conceive through ICI is between 10-20 percentage, depending on the sperm count as well as healthy fallopian tube of the couple.

EC. Gamete intraFallopian tube transfer (GIFT)

1. Definition
Gamete intrafallopian tube (GIFT) is simple ART (assisted reproductive technology) technique and defined as placing the mature eggs at the far end of the follopian tube of the female partner together with the male partner sperm.

2. Gamete intrafallopian tube transfer (GIFT)
For a healthy couple with unexplained causes of infertility and after all other conventional treatment are failed, their doctor may suggest gamete intrafallopian tube transfer to maximize the chance of fertility. After the egg are collected through either natural ovulation or other medication induced ovulation, they are replaced at the far end of the fallopian tube laparoscopically together with already prepare male sperm to increase the chance of fertilization. From there the fertilized egg moves to uterus for natural implantation. Since the eggs are placed to the far end of the fallopian tube artificial with the sperm, it increases the risk of multiple birth. GIFT is very expensive and required general anaesthesia.

3. Risks
a) Infection
b) Minor abdominal bleeding
c) Multiple birth
The success rate of gamete intrafallopian tube (GIFT) is 28% and the female partner is required to have at least a healthy fallopian tube.

ED. Zygote intrafallopian tube transfer

1. Definition
Similar to Gamete intrafallopian tube (GIFT), Zygote intrafallopian tube transfer (ZIFT) is defined as placing the zogote (the fertilized but undivided egg) directly into the woman's fallopian tubes, in order to maximize the chance of fertility.

2. Zygote intrafallopian tube transfer (ZIFT)
Since pregnancy occurs when the mature egg released by the ovaries and enters the fallopian tube, where it is fertilized by the male partner sperm

which are ejaculated into vagina following sexual intercourse, therefore by placing the fertilized egg into the fallopian tube, it increases the chance of pregnancy substantially. As soon as the egg is matured through natural process of ovulation or medication induced ovulation, it is collected. After the sperm of male partner and the egg are washed and allowed to fertilize in the lab. The zogote is placed into the fallopian tube of the female partner with either the laparoscopy or mimilaparotomy (a miner abdominal surgery).

3. Risks
a) Infection
b) Minor abdominal bleeding
The success rate of gamete intrafallopian tube (GIFT) is 25% and the female partner is required to have at least a healthy fallopian tube.

EE. Tubal embryo transfer (TET)

1. Definition
Tubal embryo transfer (TET) is defined as a procedure involves the transfer of the cleaved embryos in the Fallopian tube of the female partner.

2. What is Tubal embryo transfer (TET)
The operation is carried out as a surgical procedure in the hospital under a general anaesthesia with the use of medical laparoscopy. Unlike ZIFT, after the eggs are collected and allowed to fertilized with the male partner sperm, the zogotes are cultivated in the lab for 2 days and the embryos are replaced into the female partner fallopian tube.
It is said that TET allows the embryos to travel naturally into the uterus for natural implantation, thereby, increasing the chance of conceive, but study shows that the chance for conceive through TET is the same in other ART and only be used after IVF is not successfully.

3. Risks
a) Multiple birth
b) Anaesthesia reaction
c) Infection
d) Abdominal bleeding
e) Ovarian over stimulation syndrome.

EF. Intrasytoplastic Sperm Injection (ICSI)

1. Definition

Intrasytoplastic sperm injestion (ICSI) is defined as a fertility medical technique which uses a small needle to inject a sperm into the center of the egg.

2. What is intrasytoplastic sperm injestion (ICSI)?
It is only suggested to the infertile couple, if the male partner have low quality sperm including sperm count, motility, shape and inability of sperm in egg penetration or blockage in his reproductive tract. Under the microscope, the reproductive specialist withdraws a sperm and guides it to an mature egg by using a medical instrument called pipette, then injects the sperm into the egg. From there, the fertilized egg is allowed to develop in a laboratory for one to five days, before placing in the female partner uterus. The chance of fertility of intrasytoplastic sperm injacetion (ICSI) is as high as 50%

4. Risk
Althrough the ICSI has a success rate 50% to 80% for eggs fertilizing, it also increases the risk of
poor eggs or low quality of sperm.
a) Birth defect is around 1.5% to 3%
b) Miscarriage
c) Chromosome abnormality

EG. Testicle sperm extraction (TESE)

1. Definition
Testicle sperm extraction (TESE) is a medical advance technique which extracts sperm directly from the testicle of the male infertility partner.

2. What is testicle sperm extraction (TESE)
It is only used if the male partner of the infertile couple have absence or blockage of the sperm duct. The procedure takes between 20- 30 minutes, under local anesthesia, the reproductive specialist inserts a needle into the testicle to remove some tissues from the testicle, then each mature egg which have been collected from the female partner is injected with single sperm using ISCI technique. The fertilized eggs are allowed to grow in the lab before placing them into the uterus.

3. Risk
The successful rate of TESE is the same as of ICSI and it also contains the same risks as resulting of poor eggs or low quality of sperm.
a) Birth defect around 1.5% to 3%

b) Miscarriage difficult implantation
c) Chromosome abnormality

EH. Assisted Hatching

1. Definition
By using chemicals, mechanical technique or laser, your reproductive specialist helps the embryo to hatch out of its protective layering and increases the chance of implantation into the uterus.

2. What is assisted hatching
The assisted hatching technique is only suggested to infertile couple who have failed IVF cycles , , a couple whose embryos have a particularly "hard to break into" outer layer or women older then 37 year of age.
Under a microscope by using micromanipulation techniques and during the third day of embryo development, your reproductive specialist places a tiny chemical solution on the outer coating of the embryo. which helps to open a small hole. This tiny chemical solution begins to slowly digest the protective layering, creating a small hole and steroid antibody is given in the fourth days before embryo is transferred into the female partner uterus for implantation.

4. Risk
a) Damage to the embryo.
b) Fetal complications
c) Birth defect
a) Conjoined twins

EI. Cryopreservation

1. Definition
In fertility, cryopreservation is technique or process where sperm, embryo or unfertilized eggs are frozen and preserved in a liquid nitrogen at very low temperature between 77 K or −196 °C

2. What is cryopreservation ?
a) Freezing sperm
After sperm are withdrawn from the testicle,it is stored in the tube and stored in -80ºC for at least 24 hours. Once completely frozen, the tubes containing sperm is transferred into a regular tube rack for long term storage.

b)Freezing embryo

It is possible to freeze and store embryos in liquid nitrogen at very low temperature. Frozen embryos are stored in embryos bank and only available for legally married couple. The cost of storing embryos are low compare to other treatments and 50% of embryos survive thawing and can be transferred into a woman uterus whenever are needed.

c) Freezing eggs
The technique of egg freezing is still in experience stage because freezing and thawing the eggs may damage the outer layer of the eggs and no body know how long they can be stored for a viable pregnancy.

3. Risk
Some of frozen sperm, embryo and unfertilized eggs may be damaged and can not be used when needed

F. Hormonal Dysfunction in Conventional perspective

FA. Immune Dysfunction In Conventional Perspective

1. Definition
Immune system helps to recognize the foreign invasion such as forming of free radicals, bacteria and virus and destroy them. For some reasons, Some women and men's immune system become abnormal, leading the immune system to attach it's own body tissues or view the sperm as foreign invasion.

2. Types of immune dysfunction effecting infertility
a) Anti-phospholipid antibody syndrome
Antiphospholipid syndrome is defined as a condition which causes blood clotting in the arteries or veins and various other problems. It also causes abnormal production of antibody which attached not only the body invader but also it' s body tissues including sperm in the test, leading to low quality of sperm.
As of today, there is still no cure for the above syndrome, but some convention medication can help to control it, thereby reducing the risk of blood clotting and infertility.

b) Antinuclear antibody (ANA)
Antinuclear antibodies are as specific class of auto antibodies which have the ability to attack structures in the nucleus of cells instead of performing the normal antibody function. Since the nucleus of a cell contains genetic material referred to as DNA (deoxyribonucleic acid), ANA (antinuclear antibody) test can be performed on a patient's blood sample as part of the diagnostic process to detect certain autoimmune diseases caused by above.

c) Antithyroid antibodies
Antithyroid antibodies can be tested by diagnosing the patient thyroid hormone and the thyroid stimulating hormone TSH in the blood sample.

Only hypothyroidism causes auto immune dysfunction. They are defined as abnormal function of antibodies produced by immune system act directly against the thyroid gland. It may be caused by inflammation of the thyroid gland leading to abnormal production of certain antithyroid antibodies such as antithyroglobulin and antimicrosomal that cause miscarriage by attacking the placental or fetal tissues.

d) Anti-sperm antibody
Antisperm antibody can be produced by either partner. It is defined as a certain class of protein attaching themselves to the sperm, causing other cells in the immune system to attack them, leading to low quality sperm in men and effecting the ability of sperm to fertilize the egg in women.

FB. Treating Anti-phospholipid antibody Syndrome

1. Definition
Anti phospholipid antibody is lupuslike syndrome and defined as a condition of which causes blood clotting in the arteries or veins including Lupus anticoagulant and anticardiolopin antibody. Some women may have anti phospholipid antibody but does show any symptom of immune antibody disorder.

2. How anti-phospholipid antibody syndrome affects fertility
a) Nutrient deficiency
As the syndrome progress, it causes blood thicken that interferes with function of blood in transportation nutrients to ovaries and uterine lining, making difficult for fertility and causing miscarriage.

b) Placenta
Some researchers believe that anti-phospholipid antibody may causes microscopic blood clot in
the blood vessels in the placenta, leading to miscarriage and poor fetus growth.

c) Recurrent pregnancy loss
Study show that women who have anti-phospholipid antibody syndrome and sufer loss of pregnancy will like to sufer again, if pregnancy does occur.

3. Treatment
a) Heparin
Heparin is a member of anticoagulants, it helps to prevent the formation of blood clots in the blood vessels, thereby increasing the blood in transportation of nutrients to the reproductive organs leading to high chance of fertility and lessening the risk of pregnancy loss. Heparin can be injected

through the skin or given into a vein by intravenous infusion.

b) Prednisone
Prednisone is defined as a member of drugs called steroids, it is normally used to prevent the release of substances in the body that cause inflammation. It also has an ability to reduce the function of anticardiolipin antibodies and the lupus anticoagulant, thereby, lessening the risk of blood clot and increasing the chance of fertility.

c) Low dose of asprin
Sometime low dose of aspirin may be added to prenisone or heparin to increase the function of the medication in preventing blood clot, but aspirin is unlikely to be used alone as a medication in anticoagulation.

FC. Anti-Nuclear Antibody (ANA) in Conventional Perspective

1. Definition
Antinuclear antibody is defined as specific class of auto antibodies that have the ability to attack structures in the nucleus of cells instead of performing the normal antibody function. It can be detected through blood sample withdrawn from the patient vein.

2. Causes
a) Infection and inflammation
Infection and inflammation caused by bacteria or virus speeding up the body immune system function, but in some cases, bacteria and virus induce the immune system to produce antibodies which directed against the tissues of the body including antinuclear antibody.
b) Medication
i) Phenytoin
Pheytoin may increase the risk of production of antinuclear antibody, leading to increasing the risk of malformations and birth defects.
ii) Antibotics
Long term uses of antibody may increase the rick of the production of antinuclear antibody as the medication causes abnormal reaction to the immune system.
iii) Methyldopa
The medication is used to dilate blood vessels for treating high blood pressure, but long term use of this type of medication may decrease the risk of immune disorder in production of antinuclear antibody.
c) Aging
As we age, the levels of antinuclear antibody increases and in some older adults (5% to 40%) may have mildly elevated levels caused by weakening immune function.
d) Diseases

Some diseases such as lupus erythematosus and rheumatoid arthritis may also increase the rick of the production of antinuclear antibody.

3. How antinuclear antibody effects infertility
Under normal conditions, when a woman becomes pregnant, the white blood cells in her uterus produce protective, blocking antibodies. In case of antinuclear antibody, the white blood cells recognize the fetus as a foreign invasion and attack it, leading to miscarriage.

4. Treatment
a) Heparin
Heparin is a member of anticoagulants,it is a purified preparation derived from animal tissue. It helps to increase the blood in transportation of nutrients to the reproductive organs leading to high chance of fertility and lessening the risk of pregnancy loss.
b) Aspirin
Aspirin is an anti-inflammatory and blood thinner agent, it helps to increase the blood circulating to the reproductive organs, thereby reducing the risk of antinuclear antibody attacking the fetus or the women reproductive tissues. It is recommendation to take 80 mg per day, which is equivalent to a baby aspirin. if necessary.

FD. Treating Anti Thyroid Antibodies in Conventional Perspective

1. Definition
Anti Thyroid Antibodies are defined as abnormal function of antibodies produced by immune system act directly against the thyroid gland. It is caused by inflammation of the thyroid gland, leading to abnormal production of certain antithyroid antibodies such as antithyroglobulin and antimicrosomal, causing miscarriage by attacking the placental or fetal tissues.

2. Causes
a) Hypothyroidism
Study show that women with low levels of thyroid hormone have high levels antithyroid antibody compared with other women who do not.
b) Aging
We all know, as we age, the immune system is no longer function as it should, leading to infection and inflammation resulting in increasing the risk of over production of antithyroid antibody.
c) Infection and inflammation
Infection or inflammation thyroid gland or other part of the body may elevate the levels of antithyroid antibody as the antibody made by protein of the immune system become abnormal and attack the thyroid gland tissues
d) Medication.

Medication use such as cholestyramine, seizure medication and antibiotic may interferes with the absorption of levothyroxine or speeds the breakdown of levothyroxine, leading to hypothyroidism resulting in increasing the risk of antithyroid antibody production.

3. Treatments
a) Selenium supplement
Since the antioxidant properties of selenoproteins help prevent cellular damage from free radicals, it also helps to increase immune system in regulating the production of our body antibody including antithyroid antibody.
b) Antithyroid medication
Antithyroid medication such as desiccated thyroid, eltroxin and synthroid help to increase the the levels of thyroid function by the thyroid gland thereby, affecting the immune system resulting in lessening the risk of antithyroid antibody production.
c) Lower levels of cholesterol
Some researcher found that decreasing the levels of cholesterol in the blood stream may help to reduce the risk of hypothyroidism thereby, reducing the risk of elevating the levels of antithyroid antibody

4. Side effects of the medication
a) Heart palpitations.
b) Nervousness.
c) Insomnia.
d) Shaking
e) Too much weight loss.
f) Osteoporosis if it is taken for a long time
g) Etc.

FE. Treating Anti-sperm Antibody In Conventional Perspective

1. Definition
Antisperm antibody can be produced by either partner. It is defined as a certain class of protein attaches themselves to the sperm, causing other cells in the immune system to attack them, leading to low quality sperm in men and effecting the ability of sperm to fertilize the egg in women.

2. Causes
Since the protein can attach to the sperm, it inhibits the sperm function in egg fertilization
a) Blood contamination
A Man may produce antisperm antibody, if he injures to his testicle or due to surgery such as undescent testicle surgery, testicle biopsy, testicle torsion, etc.

b) Break down of the test barrier
Normally sperm are kept separate from blood and immune system. If there are damage to the barrier for what ever reason, the immune system may recognize the sperm as the foreign intrusion and destroy them.
c) When it is formed
For what ever reasons, antisperm antibody can be formed due to infection, inflammation or medicine, etc. If it exist, it may interferes with quality of sperm in men and make cervical mucus hostile to sperm invasion, leading to infertility.

3. Treatments
a) Corticosteroids
Corticosteroids is a drug which normally used to treat any swelling condition such as skin problems, severe allergies, asthma, and arthritis. It works effectively in reducing the production of antisperm antibody, but it causes serious side effect including make infections harder to treat, nervousness, restlessness, sleep problems, and indigestion.
b) Sperm treatments that use for ertificila insemination such as rapid washing and freeze-thawing.

Recommended Reading

G. Types of Female Structure Problems and Surgical Treatments

I. Definition
Reproductive structure problem is defined as inability of an organ to perform it's normal function due to damage or abnormal appearance caused by scar, adhesion or tumour attaching to the organ. Normally, these types of problem can be corrected by surgery.

II. Types of female reproductive structure problem

1) Congenital uterine abnormalities
Congenital uterine abnormalities is a result of abnormal uterus and tube which are developed in the embryo stage.
a) Septate uterus
In the septate uterus, there is a wall, septum membrane dividing the top of the uterus. Since the uterus is divided, it has little room for the fetus to develop and grow, leading to miscarriage or premature birth.

Metroplasty is type of surgery normally used to correct a septate uterus. Through laparoscopic surgery, the septum that divides the uterus is removed, thereby reshaping the uterus to it's normal appearance, and allowing extra room for the fetus to growing.

b) Unicornuate uterus

Unicornuate uterus is a condition of which the uterus is one side and smaller than usual. It is possible for women with unicornuate uterus to get pregnant and give birth to a healthy baby. Most cases of unicornuate uterus are never diagnosed and only 1 in 500 women are born with this kind of abnormality.

c) Bicornuate uterus

Bicornuate uterus is a condition of which a woman is born with 2 separate uterine cavity, each of them is connected to fallopian separately.

Since a woman with bicornuate uterus still can get pregnant and give birth to a premature baby, many of them can bypass the lapraoscopic surgery. If the problem is serious then her doctor may suggest metroplasty which is one form of surgery helped to join the two uterine halves.

d) Didelphic uterus

An abnormal formation of the uterus during the embryo stage resulting in 2 cervix with 2 smaller uterus and sometime 2 vagina on top of the vagina canal. A woman with didelphic uterus may not need surgery because she can still get pregnant and give birth to a premature baby, it is advised that she should work closely with her doctor during pregnancy to watch for signs of pre-term labour or other risks to the baby.

2) Tubal damage or adhesion

Tube damage or adhesion is normally caused by fluid builded up in the fallopian tube or scar tissues thus, preventing the egg to enter the fallopian tube for fertilization.

These types of structure problem can be corrected through surgery. It is performed through a small incision through the navel by a laparoscopy or in the lower abdomen by a laparotomy.

a) Tubal reanastomosis

It helps to repair the tube damaged by scar tissue and reverse tubal ligation.

b) Salpingostomy

It is used when the end of fallopian tube is blocked up by fluid buildup.

c) Fimbrioplasty

the operation is used when the fringe end of fallopian is blocked.

3) Asherman's syndrome

Asherman's syndrome is a condition in which scar tissues join one part of the uterus wall to the another. In some case, it may completely covered the uterine cavity. It is caused by abortion, fibroid surgery or endometrial infection. Normally, your doctor will perform a surgery by hysteroscopy, that helps to remove adhesions or scar tissues within the uterine cavity.

4. Fibroids

a) Types of fibroids

Fibroids are smooth benign tumor composed of fibrous and muscular, same as the uterus which adhere to either the outer or inner uterine wall, including

i) Subserous fibroids

It grows in the outer wall of the uterus and causes the uterus to grow, sometimes to 7 months of pregnancy, leading to abnormal bloating, pain during sex and in the back.

ii) Submucosal fibroids

It grows inside the uterine cavity, leading to abnormal severe cramps.

iii) Intramural fibroids

It is grows inside the uterine wall either toward outside like subserous fibroids or toward inside like subnucosal fibroids

iv) Pedunculated fibroids

This type of fibroids attach to the uterus by a stalk, and sometimes they are mistaken as ovarian
tumors, causing pelvic cramping or pain during periods.

b) Types of surgery

Normally, if the fibroid does not interferes with the women ability to conceive, it will be left alone. Otherwise, your doctor may suggest some types of surgery, including

i) Myomectomy

Myomectomy is the medical operation used to remove only the fibroids. it normally is done through an incision in the lower abdomen by a laparoscopy.

ii) Crymyolysis

the procedure destroy the fibroid by using a probelike instrument to freeze the fibroids interior.

iii) Electromyolysis

The medical procedure destroy the fibroids via electrical current.

iv) Laser myolysis

Laser beams are directed into the core of the fibroids and destroy them.

v) Uterine artery embolization

The procedure is used to block the blood flow to the fibroids. Since fibroids require nutrients to grow, blocking the blood flow causes them to shrink.

vi) Hysteroscopic resection

In this procedure, medical instrument resectoscopy insert through vagina into the uterus, where the resectoscopy is used to shave off the fibroids from the uterine wall.

vii) Endometrial ablation or resection

The technique is used to destroy the uterine lining, thereby starving the fibroids to death.

viii) Supra-cervical hysterectomy

The surgery involve removing only pert of uterus containing the fibroids.

e) Ednometriosis

The causes of endometriosis is still unknown. It is caused by endometrial cell growing somewhere else instead of the endometrium. Normally, it does

not travel far then the abdominal cavity. If endometrial implant and adhesion attached to the reproductive organs, it may causes blockage or interferes with normal function of reproductive system, including the ovaries, fallopian tube and uterus. If the endometrial implants and adhesion do not interfere with fertility and serve symptoms, many doctors may try to control them by medication, instead of surgery. If you would like more information about types of surgery, please refer to some previous articles.

GA. Congenital Uterine Abnormalities

I. Definition
Congenital uterine abnormalities is a result of abnormal uterus and tube which are developed in the embryo stage.

II. Types of treatments
1. Septate uterus
a) In the septate uterus, there is a wall, septum membrane dividing the top of the uterus. Since the uterus is divided, it has little room for the fetus to develop and grow, leading to miscarriage or premature birth. The odd of miscarriage is about 25%.
b) Diagnosis
Most cases of sepatate uterus can be detected by hysteroscopy. In this procedure, a hysperoscopy which is thin instrument called a hysteroscope is passed through your vagina and cervix and into your uterus, so your doctor can have a clean view of your uterus.
c) Surgery
Metroplasty is type of surgery normally used to correct a septate uterus. Through laparoscopic surgery, the septum that divides the uterus is removed, thereby reshaping the uterus to it's normal appearance, and allowing extra room for the fetus to growing.

2. Unicornuate uterus
a) Unicornuate uterus is a condition of which the uterus is one side and smaller than usual. It possible for women with unicornuate uterus to get pregnant and giving birth to a healthy baby. Most cases of unicornuate uterus are never diagnosed and only 1 in 500 women are born with this kind of abnormality.
b) Diagnosis
If unicornuate uterus is suspected, your doctor may order hysterosalpingogram (HSG) or ultresound, the images produced will help to your doctor determine the severity of your abnormal uterine structure.
c) Surgery
Laparoscopy is the most common surgery used to remove of the rudimentary uterine horn

3. Bicornuate uterus

a) Bicornuate uterus is a condition of which a woman is born with 2 separate uterine cavity, each of them is connected to fallopian separately.
Since women with bicornuate uterus still can get pregnant and give birth to a premature baby, many of them can bypass the lapraoscopis surgery. If the problem is serious then your doctor may suggest metroplasty which is one form of surgery helped to join the two uterine halves.
b) Diagnosis
It is the same as in 2 a)
c) Depending to the severity of the problem, if necessary, your doctor may recommend reconstructive laparoscopic surgery as we mention above. Other wise, it will be left alone but you may have to work closely with during each stage of pregnancy.

4. Didelphic uterus
a) An abnormal formation of the uterus during the embryo stage resulting in 2 cervix with 2 smaller uterus and sometime 2 vagina on top of the vagina canal. A woman with didelphic uterus may not need surgery because she can still get pregnant and give birth to a premature baby, it is advised that she should work closely with her doctor during pregnancy to watch for signs of pre-term labour or other risks to the baby.
b) Diagnosis
Same as 2 a), but sometimes MRI may be ordered by your doctor, if necessary.
c) Surgery
In most cases, a woman with didephic uterus do not required surgery, but it is suggested that she must work closely with her doctor for any sign or risk of pre-term labor.

III. Surgical risk is involved, if surgery is required.

GB. Treat Tubal damage or adhesion

1. Definition
Tube damage or adhesion is normally caused by fluid build up in the fallopian tube or scar tissues preventing the egg to enter the fallopian tube for fertilization.

2. Types of treatments
These types of structure problem can be corrected through surgery. It is perform through a small through the navel by a laparoscopy or a small incision in the lower abdomen by a laparotomy.
a) Tubal re anastomosis
It helps to repair the tube damaged by scar tissue and reverse tubal ligation. In this procedure an incision is made into the abdomen to gain access to the fallopian tubes and carefully the damage caused by scar is remove or the

tube are reattached back together if it is reverse tubal ligation..

b) Salpingostomy
Salpingostomy is a types of surgery helps to open the fimbria on the outer end to repair the tubal damage caused by fluid build up or scar blockage. Depending where the how severity of the damage and where the tube is blocked, if the tubes are damaged severely, it may cause tubal pregnancy even after surgery.

c) Fimbrioplasty
If the infertility is caused by fimbra of the fallopian sticking together, then fimbrioplasty is required to free them.

3. Risks
Surgical risks

GC. Endometriosis

I. definition
It is caused by endometrial cell growing somewhere else instead of in the endometrium. Normally, it does not travel far from the abdominal cavity. If endometrial implants and adhesion are attached to the reproductive organs, it may causes blockage or interferes with normal function of reproductive system, including the ovaries, Fallopian tube and uterus.

II. How conventional surgery helps to treat endometriosis
If the endometrial implants and adhesion do not interfere with fertility and cause serve symptoms, many doctors may try to control them by medication, instead of surgery.
a) Medication
i) Creating a continual pregnancy state
These types of medication help to stop or reduce period by stimulating the production of progesterone such as continuous dose of the Pill, Provera and Danazol.
Since
ii) Create a menopausal state
By suppressing the production of estrogen in the early menstrual cycle, it induces the women body into the menopause state that help to stop the growth of endometriosis.These types of medication include all GnRH agonist range of drugs.
iii) Stop the pain
The medication are used to inhibit the production of certain hormones which cause menstrual pain in the prostaglandins family. These types of medication include prostaglandins inhibitor medicines, the Pill, painkiller, etc

b) Surgery
If endometriosis interferes with the normal process of the natural pregnancy, then operation is required to remove them. For further information, please refer back to the my previous articles of endometriosis.

III. Surgery and side effect
If you would like more information about types of surgery or side effects, please refer to some previous endometrial articles.

III. Risks
1. Surgery risks as other operation
2. Risk of medication can be refer to other endometrial articles

GD. Asherman's syndrome

I. Definition
Asherman's syndrome is a condition in which scar tissues join one part of the uterus wall to the another. In some case, it may completely covered the uterine cavity

II. Causes
Asherman's syndrome is caused by abortion, fibroid surgery or endometrial infection such as retained placenta with or without hemorrhage after a delivery, or elective abortion or a missed or incomplete miscarriage surgery.

III. Surgery
Normally, hysteroscopy which is a thin medical instrument passed through your vagina and cervix and into your uterus to help your doctor to examine your uterus and operate if necessary. It is the best choice which helps to cut and remove adhesions or scar tissue within the uterine cavity for women with ashman's syndrome.
Estrogen supplementation may be prescribed by your doctor to stimulate the growth of endometrium, thereby stimulating the self uterine healing.

Normally, your doctor will perform a surgery by hysteroscopy, which helps to cutt and remove adhesions or scar tissue within the uterine cavity.

II. Surgical risk

GE. Fibroid Tumors
I. Definition
Fibroids are smooth benign tumor composed of fibrous and muscular, same as the uterus which adhere to either the outer or inner uterine wall.

II. Types of fibroid

a) Subserous fibroids

It grows in the outer wall of the uterus. it also causes the uterus to grow, sometimes to 7 months of pregnancy, leading to abnormal bloating, pain during sex and in the back.

b) Submucosal fibroids

It grows inside the uterine cavity, leading to abnormal severe cramps.

c) Intramural fibroids

It is grows inside the uterine wall either toward outside like subserous fibroids or toward inside like subnucosal fibroids

d) Pedunculated fibroids

This type of fibroids attach to the uterus by a stalk, and sometimes they are mistaken as ovarian
tumors leading to pelvic cramping or pain during periods.

II. How conventional surgery helps to treat fibroids

Normally, fibroid is left alone with regular check up, if they do not interfere with regular menstrual cycle and fertility. If they start growing rapidly, cause serious pain, discomfort, or grow rapidly and interfere with the process of conception, then surgery may be required
depending on the woman's age, the type of symptoms, and whether she plans to have children in the future.

1. Myomectomy

Myomectomy is the medical operation used to remove only the fibroids in the uterus without damaging or disturbing the uterus other organs. It normally is done through an incision in the lower abdomen by a laparoscopy. In this surgery, your doctor tries to remove as many fibriods as possible while making as few surgical cuts as possible, but sometimes more cuts are required. Unfortunately, the rate of recurrence for women with myomectomy is as high as 50%.

2. Crymyolysis

Crymyolysis is a procedure that destroys the fibroid by using a probelike instrument with liquid nitrogen to freeze the fibroids interior resulting in killing the tissue and stopping the fibroids from growing further. The surgery usually takes less than an hour and the patient can return home in the same day and return to normal activities in a week. Unfortunately, cryomyolysis usually does not preserve a woman’s ability to have children. If you want to have children in the future, be sure to talk to your doctor before the surgery for other options.

3. Electromyolysis

The medical procedure destroy the fibroids via electrical current. It is the best choice if the fibroid only grows in the uterus with the size of 6-week pregnancy. The same procedure as in 2, but in this case, instead of trying to

remove by aprolike instrument, he or she uses electric current to destroy as many fibroids as possible.

4. Laser myolysis
As as 2, in this case medical instrument produce laser is used directly into the core of the fibroids to destroy them.

5. Uterine artery embolization
The procedure is used to block the blood flow to the fibroids. Since fibroids require nutrients to grow, blocking the blood flow causes them to shrink. By using an x-ray camera called a fluoroscope to deliver small particles to the uterus and fibroids , it helps to block the arteries that provide blood flow, leading to shrinking of the fibroids..

6. Hysteroscopic resection
In this procedure, medical instrument resectoscopy insert through vagina into the uterus with a small camera which is placed on the end of a long thin tube. Your doctor shaves off the fibroids from the uterine wall with the resectoscopy.

7. Supra-cervical hysterectomy
The surgery involves removing only part of uterus containing the fibroids, thereby preserving sexual function and its mucous-secreting glands. The time of recovery from laparoscopic supra-cervical hysterectomy surgery is faster and less painful than other laparoscopic surgery.

III. Risks
1. Surgical risk if surgical is required
2. Damage to adjacent organs

H. Types of Male Structure Problems and Surgical Treatments

I. Definition
Male structure reproductive problems are defined as an abnormal penis ejaculation. It is caused by congenital defect, damage or injure to the testicle, leading to abnormal sperm count and sometimes interfering with normal fertility.

II. Types of male reproductive structure problem
1. Retrograde ejaculation
Retrograde ejaculation is defined a condition of which the sperm semen is ejaculated back ward into the bladder, instead of forward into the vagina. It may be caused by diabetes, medication such as pseudoephedrine or imipramine or someone having a history of testicle cancer. Maintaining good blood sugar may help to control it if you have diabetes. If retrograde ejaculation is caused by medication, please discontinue the medication and

consult your doctor immediately.

2. Undescended testicle
Undescended testicle is birth defect condition, baby boy born with this condition usually self corrected within six months after birth. If the testicles are not descended themselves, then surgery is required. Man who has undescended testicle, may have low sperm count effecting fertility even after surgery.

3. Block and missing ducts
Women who have taken the anti miscarriage DES during pregnancy may causes congenital malformed vas deferens or missing seminal vesicle to the child (if it is a boy). Men with above condition usually have low sperm count or semen with no sperm.

4. Hypospadias and epispadias
These are congenital birth defect condition, where the opening of the penis is either on the under side or upper side of the penis, leading ejaculation malfunction. These types of condition can be reversed by surgery.

5. Torsion
Torsion is a condition of testicle injure that causes the testicle to twist away to protect itself inside the scrotum. It can be corrected by surgery. If the condition is left untreated for too long, it may cause shrinking of the test, leading to low sperm count or semen with no sperm.

IV. Risks
Surgical risk if surgery is required.

HA. Retrograde Ejaculation

I. definition
Retrograde ejaculation is defined a condition of which the sperm semen is ejaculated back ward into the bladder, instead of forward into the vagina.

II. How Conventional medication helps to treat retrograde ejaculation
A. Causes
It may be caused by prostate surgery, a spinal injury, diabetes, high blood pressure medication and congenital problems and medication such as pseudoephedrine or imipramine or someone having a history of testicle cancer. Maintaining good blood sugar control may help to control it if you have diabetes. If retrograde ejaculation is caused by medication, please discontinue the medication and consult your doctor immediately.

B. Diagnosis
If you found your urine is cloudly with semen immediately after sexual

intercourse, you may have regrade ejaculation.

C. Treatments
There are no effective treatment at this time.
In fact, since a man with retrograde ejaculation achieve orgasm normally and feel nothing wrong with his reproductive system and if having children is not the concern than why does he have to bother about. Otherwise, he may want to go through method by retrieving his sperm from urinary bladder, following by artificial insemination.

HB. Undescended Testicle

I. definition
Undescended testicle is birth defect condition, baby boy born with this condition usually self corrected within six months after birth. If the testicles are not descended themselves, then surgery is required
.
II. Types of undescended testicles
1. True undescended testes
The test is in the normal rout of descent, but for what ever reason, they can not descent to the scrotum
2. retractile testes
It is caused by over active abnormal muscles. leading to testes elevating. This type of problem usually occurs between age from 3 - 6.
3. Ectopic testes
The testes are found outside the normal route of descending into scrotum.

III. Causes
The causes of undescended testicles are unknown, premature baby is found to be high risk for this problem.

IV. How Conventional Surgery helps to treat Undescended testicle
Man who has undescended testicle surgery may have low sperm count that may effect fertility.
1. Place testes in the normal route
Many doctors suggests that children with undescended testicles may be required surgery to put his testis before second birthday in the normal route for natural testis descendant.
2. Hormone therapy and surgery
If both testicles are undescended, Some doctors may suggest both surgery (By putting the testicles into the scrotum) and hormonal medication GnRH or hCG or both.
Unfortunately, if undescended testicles are found to bed damage or injured, it may cause hormone imbalance and infertility.

V. Risks
Surgical risk if surgery is required

HC. Block and Missing Ducts

I. definition
Women who have taken the anti miscarriage DES during pregnancy may causes congenital malformed vas deferens or missing seminal vesicle to the child (if it is a boy).

II. Symptoms
Many men with congenital bilateral absence of the vas deferens do not have any symptom, but some men with this condition may experience mild respiratory or digestive problems.

II. How Conventional Surgery helps to Treat Block and missing ducts
There are no effective treatment to be found.
Men with above condition usually have low sperm count or semen with no sperm. Since this condition has not been reported to affect sex drive or sexual performance, if having children is not a concern, than you don't need to worry about. Other wise artificial insemination is the only choice. In this procedure, immature sperm are removed the epididymis and cultured in the lab until they mature before fertilizing of his partner egg with any insemination method as the couple desire.

HD. Hypospadias and epispadias

I. definition
These are congenital birth defect conditions, where the opening of the penis is either on the under side or upper side of the penis, leading ejaculation malfunction.

II. Causes
1. Medication
Medication antihistamine loratadine is taken early in pregnancy might cause hypospadias.
2. Occupation
Certain occupation where the mother exposed to certain chemical may disrupt the endocrine system, leading to prevalence of hypospadias to their offspring.
3, Bladder problem
Epispadias may be caused by bladder fissure extending into the urethra and becoming an opening in the upper surface of the penis.

II. How conventional surgery helps to treat hypospadias and epispadias
These types of condition can be reversed by surgery.
1. Hypospadias surgery
In males with hypospadias, one surgery usually is sufficient to repair the defect. By using the a flap of skin to construct or extend the urethra, your doctor creates a new opening and the opening is closed.

2. Epispadias surgery
Repairing an epispadias epispadias is normally done in the early childhood with penile straightening by resection of the chordee and creation of a new penis penning with caliber and urethroplasty to prevent any proble when the penis is erected surgery for these defects is successful 70 to 80% of the time.

IV. Risks
Surgical risks, since surgery is required.

HE. Torsion

I. Definition
Torsion is a condition of testicle injure that causes the testicle to twist away to protect itself inside the scrotum. It can be corrected by surgery and must be differentiated from other complaints of testicular pain because any delay of treatment can cause loss of the testicle. If the condition is left untreated for too long, it may cause shrinking of the test, leading to low sperm count or semen with no sperm.

II. How conventional surgery helps to treat torsion
The surgery is required using local anaesthesia in the effected area. With a small incision made to the scrotum, the effected testicle is brought out while and the cord is untwisted then it is observed to see if the blood flow is return by examining it's normal colour. If not, then the testicle is damage and it must be removed. Otherwise, the testicle is secured to the scrotum with some stitches. You may need a scrotal suspensor, if your doctor suggests. Even though there is no follow up required, but it is for your benefit to check your testicle yourself for the period of 6 hour period after surgery to see if the blood is return, in order to prevent permanent damage.

III. Side effects
1. Although, it is rare, it may happen. The unsuccessful surgery for securing may causes the testicle to twist again.
2. Blood may be collected in the scrotum after the surgery as resulting of surgery or blood flow.

IV. Risks
1. Risk of infection
2. Swelling because of blood flow
3. Pain
It can be reduced by taking some pain reliever

Recommended Reading

Chapter V - Fertility Self Diagnosis Methods

1. Calender method
This is one of the oldest method which has been used over thousand years in human history. Today, it still the most popular method in the many country side in our world and the third world. By closely record the frequent and length of menstruation over several months and considering ovulation occurs between nine and seventeen after last period, a woman can pinpoint the best days for her to get conceive. In fact, if a woman already knows the length of her menstrual cycle, then she knows the first day of ovulation by subtracting 14 days from it. 3 days before and after is the best chance for conception. This method can work efficiently only for women with regular menstrual cycle.

2. Basal body temperature (BBT) methhod
The most common technique and self ovulation diagnosis used by most women in our world. As a woman knows that her reproductive ovulation occurs a day or two when her body has lowest basal body temperature and the body basal temperature are at the highest one or two days after ovulation. By record the morning temperature over a few menstrual cycles, a woman can pinpoint the best time for her to get pregnant.

3. Cervical mucus method
Under normal circumstance, the cervical mucus is sticky and unstretchable and always hostile to sperm and in penetration as it's function is to protect the reproductive system against any invasion of bacteria and virus, but in the few days before and after ovulation, the cervical mucus becomes watery and stretchable and friendly for sperm invasion. By taking a cervical mucus

daily and test them, if the mucus becomes clear, slippery, thicken, increases in amount and the size can it be stretched, then the ovulation may occurs within 1 to 2 days.

Although each of methods is considered safe and easily to used, but the best result is to combine all 3 of them for accurate predicting.

Chapter VI - What to Avoid if You Want To Get Pregnant

1. Simple sugar and refine starches
Simple sugar and refine starches have a very high reading in the GI index list as they cause sharp rise and drop of blood sugar in the bloodstream, leading to
a) Hormone imbalance
As the levels of insulin produced by the pancreas have to increase traumatically when the blood sugar levels rise and stop when the blood sugar drop. The imbalance of levels of sugar also cause the over production of cortisol hormone by the adrenal gland that interferes with production of sex hormone, causing infertility.
b) Vitamins
Over production of cortisol caused by intake of sugar and refine starches also increases the risk of nutrients deficiency as resulting of vitamins and minerals depletion including B vitamin and magnesium.
c) Weakened immune system
Study show that intake a teaspoon of simple sugar can weaken the immune system up to 4 hours as resulting of weakening protein functions in body defence.

2. Saturated fat and trans fat
Saturated fat and trans fat interferes the liver function in essential fatty acid metabolism, leading to over production of certain hormones in the prostaglandins family, causing menstrual camps and pain, nervous tensions as well as irregular menstrual cycle, thereby increasing the risk of infertility.

3. Coffee
Intake of large amount of coffee daily to fight off stress may have a negative effect in the reproductive system. As study show that women who consume 300 mg or more of caffeine take longer to conceive than women who do not or take less.

4 Drug and alcohol
Drugs and alcohol can influence an imbalance of reproductive hormones. As drug increases the tension of the nervous system leading to hormone imbalance, excessive alcohol drinking can cause liver damage, which

abnormal function of liver in all kinds of metabolism, causing blood and qi stagnation in the liver and effecting a couple's reproductive abilities. Alcohol also causes nervous tension, leading to over production of certain hormones, thereby, increasing the risk of infertility.

5. Carbonate Soda
Carbonate soda contains high amount of sweetener, caffeine and phosphate which can interfere with calcium absorption as well as stimulating the over production of certain hormone including cortisol, leading to fatigue, stress and anxiety.

6. Lubricants
Lubricants may be toxic and can decrease the sperm's ability to move and motility through the female's reproductive tract for egg fertilization. If necessary, using the water base lubricants is recommended.

7. Douching
Douching may cause over production of certain the bacteria in the vagina causing infection or inflammation as well as decreasing the sperm motility and cervical mucus penetration.

It is said that caffeine of green tea is absorbed quickly by the body, after entering the digestive system, therefore, it does not interfere with the fertility process.

Chapter VII - Diet to Conceive

1. Essential fatty acid
As we mention in some other articles, essential fatty acid is vital in regulating the production of prostaglandins hormones through liver fatty acid metabolism thereby, increasing the blow flow in the body including the reproductive organs, as well as protecting the body from inflammation resulting in increasing the chance of fertility and lessening the risk of hormone imbalance. It is recommended to take cold water fish to increase vital essential Omega 3 and 6 fatty acid.

2. Dairy products
Dairy products contains high amount of trans fat which may interfere with the liver in protein and fat metabolism, therefore, if necessary, only takes mild from manufactures with organic growth.

3. Meat
The best choice of meat for fertility is lamb according to traditional Chinese medicine. It is said that lamb meat containing certain boost fertility substances in men. Always choose lean and organic growth lamb meat to prevent feeding contamination.

4. Fruits and vegetables
Fruits and vegetables contain high amount of vitamins, bioflavonoids and antioxidants which are vital for over all health in our body including the reproductive system.

4. Nuts and seeds
Nuts and seeds contain high amount of essential fatty acids, vitamins and good sources of protein which are essential to maintain over all functions of the body, including maintaining the production of certain hormones (estrogen balancing and production of good prostaglandins hormones) that are vital for fertility process, thereby increasing the chance to conceive.

5. Healthy carbohydrate
Carbohydrate is important for our body in maintaining high levels of energy. It is suggested that you eat enough carbohydrate to prevent fatigue, lack of energy, etc to prevent primitive reaction of the brain in reproductive process. Only eat those with low GI index food such as whole grain to prevent fluctuation of sugar levels and over production of cortisol.

b Legumes
Beside classifying as low GI index food, it also contains high amount of legans which is vital for balancing the levels of bad estrogen, thereby, decreasing the risk of infertility caused by estrogen imbalance.

Chapter VIII - How to Treat Infertility With Traditional Chinese Perspective

A. Diagnosis of Infertility in Traditional Chinese medicine (TCM)

Unlike conventional treatment, traditional Chinese medicine treat each patient as a unique entity and believe a tiny microscopical change in the endocrine system can disrupt the entire mind-body complex, thereby, the treatment is focus in the underline causes of the diseases, including hormone imbalance and immunity causes of infertility. In this article we will discuss diagnosis of infertility in traditional Chinese perspective

A. In Women

I. Definition
Traditional Chinese medicine besides views female infertility through diagnosis of 5 element theory, it also checks the function of kidney yin and yang as well as blood flow.

III. Diagnosis
1. Deficiency kidney yin

Women with abnormal menstruation including light discharge such as red and without clots, emaciation, dizziness, red tongue with little fur, insomnia and rapid pulse are considered as deficiency of kidney yin.

2. Deficiency kidney yang
Women with prolong menstrual cycle, no menstrual discharge, lower back pain, lack of sexual desire and slow pulse are considered as deficiency of kidney yang.

3. Blood deficiency
According to traditional Chinese medicine, blood stagnation is caused by weakened spleen organ, thereby, reducing the spleen function in blood formation causing not enough blood to be distributed to the body leading to no blood for menstruation. Women with symptoms of late menstruation with pale and scanty or absence of menstruation, dizziness, dry skin, pale tongue, pain in abdomen after menstruation and weak pulse.

4. Blood stagnation
Blood stagnation is normally caused by qi stagnation or qi deficiency in the liver leading to abdominal pain, clotted and dark menstrual flow, nervous tension, premenstrual breast tenderness, a slight purple-tongue and wiry pulse.

B. In Men

I. Definition
Traditional Chinese medicine beside views male infertility as if caused by imbalance of 5 elements in the theory, it also checks the function of kidney yin and yang, liver qi, stagnation of qi and blood as well as heat and dampness accumulation in the lower burner.

II. Diagnosis
1. Liver qi stagnation
Liver meridian blockage in the local area (genital) interferes with normal testicle functions, leading impotence, low libido and ejaculation.

2. Kidney deficiency
a) Kidney Yang deficiency
Men are considered kidney yang deficiency if they have symptom of low sexual desire, weak ejaculation, impotence, seminal emission, low sperm count, slow sperm mobility.

b) Kidney yin deficiency
According to TCM kidney is vital to maintain a healthy reproduction system in men and women alike. In men, infertility caused by kidney yin deficiency includes symptoms seminal emission, slow sperm mobility, low sperm count.

3. Stagnation of qi and blood
Stagnation of qi and blood is normally caused by weakened liver in fat and protein metabolism and spleen in blood formation leading nervous symptoms including worrisomeness, over-thinking, stress, chronic illness and impotence, low sperm count, short sperm life, slow sperm mobility.

4. Heat and dampness accumulation in the lower burner
Male suffered from heat and damp diseases is normally caused by over alcohol drinking and unhealthy diet including high in saturated and trans fat and spicy food leading to generally overweight, sperm count is low and sometimes sperm deformities.

B. Food Classification in Traditional Chinese Medicine (TCM) Perspective

1. Cold
Cold foods in traditional Chinese medicine are considered as a type of food which may stimulate the colding effects in your body and deplete the yang qi as resulting of our body needs to counter the colding effect with yang qi in the body. Prolong period of taking these kinds of food without balancing them with other warm or hot foods may cause yang qi and kidney yang deficiency resulting in interfering with normal function of the reproductive organ and lessoning the chance of fertility in men and women alike. For women who try to conceive should avoid to eat these type of food all together or counter with at least same amount of hot foods.
a) Bamboo
b) Banana
c) Grape fruit
d) Clams
e) Seaweed
f) Watermelon
g) Bitter melon
h) Etc.

2. Cool
Same as cold food, but they are not as strong. It also depletes the yang qi but moderately, therefore eating these types of foods should counter with some warm food to avoid yang qi and kidney yang deficiency. Women who try to get pregnancy is advised to eat only moderate amounts and for nutrients only. Otherwise, they may dampen the chance of fertility.
a) Apple
b) Lectuce
c) Cucunber
d) Pear
e) Spinach

f) Strawberry
g) Tomato
h) Etc.

3. Neutral
Although neutral foods are types of food which have no effects in ying and yang qi in the body, but it may have other side effect such as rice, gain and potato which may interfere with insulin production of the spleen as well as liver function in carbohydrate metabolism. If these types of foods have any effects with the chance of fertility, your herbalist will let you know in the process.
a) Apricot
b) Beet
c) All kinds of red meat
d) Celery
e) Honey
f) Rice
g) Bread
h) Etc.

4. Warm
Warm foods are considered as food with warming effects in the body. It is most important foods
which are used most often for pregnant women as they can help to maintain the healthy pregnancy as well as protection against miscarriage. Warm foods increase your body temperature and yang qi slightly that helps to increase the chance of fertility in women and men alike.
a) Black tea
b) Cherry
c) Chive
d) Leek
e) Peach
f) Raspberry
g) Chicken
h) Etc.

5. Hot
Foods with hot nature are normally good for improving immune system in fighting against forming of free radicals, bacteria and virus as well as increasing the blood flow to the body including the reproductive organs, but over eating these types of food may cause yin qi and kidney yin deficiency leading to hormone imbalance and interfering with fertility process.
a) Garlic
b) Ginger
c) Pepper
d) Onion

e) Green onion
f) Cinnamon powder
g) Etc.
Finally, we would like you to know that most foods with bitter, sour and salty are classified as yin and hot and sweet are classified as yang.
This article is only provided you with information how food interacts directly to your chance of fertility. For more information, please consult with your herbalist.

D. How to Treat Infertility With Chinese Herbs
I. In Female
1. Bupleurum
Although bupleurum is not a tonic medicine, it is proven effective when used together with peony in balancing the levels of estrogen and progesterone in the women during menstrual cycle resulting in lessening the risk of irregular menstrual cycle and increasing the chance of fertility.

2. White Peony root
White pony root is a Chinese herb used to strengthen the spleen and diminish the liver qi, thereby, increasing the body in blood sugar regulation and essential fatty acids metabolism resulting in lessening the risk of qi and blood stagnation in the abdominal region leading to irregular menstrual cycle and cramps.

3. Engelica roots(Dong Quai)
Engelica roots id a reproductive organ tonic herbs, it not only helps to increase blood flow to the abdominal region but also helps to balance the levels of estrogen and progesterone hormone during menstrual cycle resulting in increasing the normal process of fertilization.

4. Cinnamon
Cinnamon is classified a hot herb in traditional Chinese medicine, it not helps to strengthen the immune system, but also increase the kidney function in regulating the production of sperm, if the cause of infertility is found to be kidney yang deficiency.

5. Poria
Poria has been used in traditional Chinese medicine in treating blockage of channels and blood, resulting in lessening the risk of blood and q stagnation in the reproductive region, thus increasing the normal menstrual cycle and increasing the chance of fertility.

6. Schizandra
It is said that schizandra not only helps to increase immune system in fighting against irregular cell growth, but also stimulate the production of testosterone, leading to increase sexual desire and the chance of fertility.

7. Lycium
Lycium is considered as a quintessential tonic herb. It not only has the power to restore the harmony of 5 elements in Chinese medicine, but also increases the production of quality sperm in men and regulating the menstrual cycle in women.

8. Cordyceps
It is considered as a liver tonic herb. It helps to increase liver function in carbohydrate metabolism and regulate spleen in insulin production resulting in lessening the risk of blood stagnation in the abdominal region, thereby increasing the chance of normal process of menstrual cycle.

9. Gynostemma
Gynostemma is considered as immortal herb in traditional Chinese medicine, it supports the harmony of glands and organs in the body, resulting in increasing over all health, including the reproductive organs.

II. In Male
1. Polygonum multiflorum,
Polygonum multiflorum besides has been used widely in China as the body rejuvenate herb, it helps to restore the kidney function as resulting of kidney yin and yang imbalance, thus, increasing the production of sperm count and sperm quality.

2. Deer Antler
Deer anther besides is a male hormone enhancer herb, it also has a unique function in assisting the production of blood and blood movement, resulting in increasing the blood flow to the reproductive organs thus, increasing sexual desire and sperm production.

3. Astragalus
Astragalus is a male sexual enhancer herb, it helps to increase the levels of testosterone in the body, resulting in increasing the sexual desire and production of quality of sperm and count.

4. Epimedium
Epimedium is said to have a aphrodisiac characteristics. Chinese herbalists believe, if epimedium can increase the sexual activity and off springs in goats, it must have the same effect in men.

5. Cistanches
Cisanches is kidney tonic herb, it helps to improve the kidney function in regulating the effectiveness of men reproductive organs, resulting in lessening the risk of sexual dysfunction and increasing the sexual desire.

6. Imperial Garden
Imperial garden is also known as dragon herb and considered as a over all health tonic herb, thereby, it helps to restore the body to it's harmony state, resulting in increasing the function of reproductive organs to response to it's natural process.

7. Male Silk Moth
Male silk moth contains high levels of protein, cephalin and male hormones, it helps not only to reduce the nervous tension, but also increase the production of testosterone, resulting in increasing sexual desire and production of sperm quality and count.

Recommended Reading

E. In Women
EA. Bupleurum
I. Definition
Bupleurum also known as Bei Chai Hu, is a very large genus of plants and belongs to the family Apiaceae (Umbelliferae). It has used in traditional Chinese medicine for thousands of years in treating infections with fever and liver problems.

II. How bupleurum effects female fertility
1. Liver qi stagnation
The herb is said to have a liver tonic effect that helps to release liver qi stagnation as resulting of accumulating toxins over whelming the body, leading to abnormal function of liver in regulating the spleen function in insulin production resulting in hormone imbalance and irregular menstrual cycle. Also sluggish liver reduce it's function in essential fatty acids metabolism, leading to over production of certain hormone in the prostaglandins family resulting in menstrual cramps and pain and iver active uterus that effects the chance of fertility.

2. Kidney
It not also helps to improve kidney function in urinary extraction but also restores it's function in regulating the steroid growth hormone, leading to hormone balancing and decreasing the risk of irregular menstrual cycle.

3. Kidney yin deficiency

It is considered as a cool to cold herb, thereby, it helps to release over abundant yang qi that obstructs the normal process of egg production and increases the risk of irregular menstrual cycle.

4. Immune system
Bupleurum is also a immune function tonic with the "cool to Cold side. beside helping immune system in fighting against bacteria and virus invasion, it also increase the immune system to recognize sperm are part of the body's tissue and not to attack them. It works well if the infection is caused by immune abnormal function in yin qi deficiency

5. Spleen function
It also has an effect in spleen function in production of insulin that helps to reduce the risk of insulin fluctuation, leading to production of certain hormone (serotonin) and interrupting the hormone production (progesterone), thereby, increasing the chance of fertility.

6. Blood flow
It is said that bupleurum helps to reduce the levels of cholesterol and triglyceride, therefore it not helps to improve the function of the heart, but also increases blood flow to the reproductive organs, resulting in lessening the risk of infertility

III. Side effects
It may cause
1. Nausea
3. Reflux
4. Increase bowel movement
If over dose.

EB. White Peony

I. Definition
White peony is the bark of the root of Paeonia suffruticosa and also also known as "moutan" or "mu dan" in China. It has been used in traditional Chinese medicine in treating liver cirrhosis.

II. How white peony effects female fertility
1. Liver
White peony has been listed in traditional Chinese medicine medical book for over thousand of year in treating liver qi and fire blood caused by yin deficiency, leading to the qi and blood stagnation in the liver, thereby lessening it's function in carbohydrate metabolism and increasing the risk of hormone imbalance causes of infertility.

2. Uterus tonic

It is said that white peony also helps the liver in regulating the production of certain hormones in the prostaglandins family resulting in lessening the risk of abdominal pain and cramps caused by over active uterus.

3. Kidney
White peony not only helps to increase the function of kidney in urinary extraction, but also improve kidney function in regulating the production of steroid hormones, leading to production of testosterone that helps to improve sexual desire and reducing the risk of water retention.

4. Blood stagnation
Since it helps to release the blood stagnation in the liver, it also improves the blood flow to the abdominal region, resulting in lessening the risk of irregular menstrual cycle and increasing the chance of fertility.

5. Yin qi and blood deficiency
Since it is the herb in the cold side, it helps to restore the harmony in the body, if the infertility is caused by liver blood stagnation and liver yang abundance.

III. Side effects
No Side effect as known

EC. Angelica Root (Dang Qui)

I. Definition
Angelica is a biennial plant belongs to the family Apiaceae. It's root (angilica root) also known as dang qui or gong quai has been used in traditional Chinese medicine as a reproductive tonic medicine combined with other herbs such as astragalus to treat exhaustion from blood loss.

II. How angelica root (dang Qui) effects women fertility
1. Reproductive organs tonic
Traditional Chinese medicine views angelica roots as queen herb which has been used to enhance the productive system and promote menstrual health. It is said that angelica roots has the power to restore any deficiency caused by hormone imbalance.

2. Blood tonic
It also is a reproductive blood tonic herb that not only help to increase blood production to replace blood loss for women with heavy menstruation, but also increases the blood flow to abdominal region, leading to enhancing the chance of fertility.

3. Digestive system

Beside helping to cure diarrhea, it also increases the digestive system in absorbing essential vitamins and minerals, thereby reducing the risks of infertility caused by nutrients deficiency.

4. Blood and qi deficiency
Blood and qi deficiency in the reproductive region may be caused by blood and qi stagnation in the liver, kidney or some where else in the body, leading to irregular menstrual cycle, absence of period or painful period. Angelica roots helps to increase blood and qi flow, resulting in normalizing the function of reproductive organs.

5. Kidney tonic
It is said that angelica root also helps to improve kidney function not only in regulating water and fluid through urinary extraction, but also improving kidney normal function in regulating the natural menstrual process of the reproductive organs, resulting in increasing the chance of fertility.

6. Immune system
It is said that angelica root containing variety chemicals that help to strengthen the immune system in fighting against infection and inflammation, thereby decreasing the risk of yeast infection during menstruation as well as forming of irregular cell growth in the reproductive organs.

III. Side effects
1. it may cause skin inflammation and rashes, if it is taken in high dose
2. Since angelica root causes uterus constraction, a pregnant woman should not take it, unless with the approval of her herbalist.

ED. Cinnamon

I. Definition
Cinnamon also known as Cinnamomum verum), it is a small evergreen tree belongs to the family Lauraceae and has been used in traditional Chinese medicine in treating kidney yang deficiency.

II. How cinnamon effects women fertility
1. Kidney yang
Since it is a hot herbs, it helps to improve the yang qi in the kidney and increase the chance of fertility, if the infertility cause is diagnosis as yang qi deficiency. By increasing the kidney yang, it also help to enhance the chance of fertility as resulting of improving of sexual desire.

2. Digestive system
It is also helps to improve appetite and digestive system in vitamins and

minerals absorption that are essential to maintain the healthy menstrual cycle and enhance the normal process of conception.

3. Blood flow
Cinnamon also contain certain chemical agents which help to stimulate the blood flow to the reproductive region, leading to lessening the risks of menstrual disorder and infertility caused blood deficiency of the reproductive organ. It also helps the spleen in regulating the production of insulin, resulting lessening the risks of blood sugar in the blood stream, causing diabetic like symptoms of infertility.

4. Immune system
As an antioxidant, it helps to improve the function of immune system in guarding our body against the invasion of bacteria and virus that decreases the risks of over active immune disorder, causing production of certain proteins binding to sperm and asking other immune cells to attach it.

5. Dysmenorrhea
It has some chemical properties which help to calm the reproductive organs during menstruation, resulting in lessening the menstrual pain caused by qi and blood stagnation in the region and increasing the chance of fertility.

III. Side effects
Since it is considered as one the hot food in traditional Chinese medicine, over dose may cause
yin qi deficiency (or toxic effect because of presenting of coumarin in western medicine term)

EE. Poria

I. Definition
Poria also known as fu ling in traditional Chinese medicine and it has been used in traditional medicine in harmonizing the fale reproductive system.

II. How poria effect women fertility
A. Midle Jiao harmonizing
Midle jiao is defined as the organs in midsection of the body including the spleen, stomach, gall bladder and liver organs. Since it helps to improve the inter relationship of those organs in the midsection, it improves
1. Kidney function in regulating the water retention in the body tissues and normalizing the function of kidney in assisting the natural process of fertility.
2. Spleen function in secreting the amount of insulin in energy processing, resulting in lessening some menstrual cycle symptoms, thereby increasing the chance of fertility.

3. Stomach in food digestion, leading to intestine in absorbing vitamins and minerals that is necessary for women who want to get pregnant.
4. Gall bladder in storing bile in the liver and digestive system in nutrients oabsorption
5. Liver function in regulating the processing of estrogen and essential acid production, thereby, lessening the risk of hormone imbalance and menstrual cramps and pain caused by over production of some remembers in the prostaglandins family.

B.. Blood tonic and hormone imbalance
Poria also contains some chemicals which help to improve blood flow resulting in lessening the risk of over working heart in providing oxygen to the body, resulting in increasing the inter information transmitting that reduces the risk of over production in certain hormone which interfere with process of fertility.

C. Respiratory tonic
It is also a lung tonic herb which helps the lung function in asorbing oxygen, resulting in increasing the blood stream in providing nutrients to the cell in our body and reducing the symptoms of dizziness, lack of energy, etc.

III. Side effects
There are no known side effect. Since it is a diuretic herb,women take antidiuretic medications should consult with their doctor before taking peria.

EF. Maca Root

I. Definition
Maca also known as lepidium meyenii, it is a herbaceous biennial plant native to the high Andes of Bolivia and Peru. It' root has been used in traditional medicine in treating men sexual dysfunction.
II. How maca root effects fertility
1. Blood tonic
It is said that maca root contains certain chemicals which help to increase blood flow the penis as the blood vessel dilate, thereby reducing the symptoms of sexual dysfunction for some men.

2. Prostate gland
It is said that maca root helps to treat enlarge prostate gland resulting in improving the blow flow to penis as well as increasing the function of penis in sperm ejaculation into women vagina, leading to better chance in egg fertilization.

3. Thyroid hormone
Maca root contains iodine, a chemical which is vital for the function of

thyroid gland. Deficiency of iodine causes abnormal function of thyroid gland(hypothyriodism) in secreting certain hormone, leading to hormone imbalance resulting in disrupting the normal process of natural conception.

4. Adaptogen
It is said maca root is adptogenic herb, that helps to reduce the nervous tension by enhancing the power of resistance and adapt to external condition in the brain, resulting in lessening the risks of emotional and physical stress and anxiety.

5. Immune system
Maca root also helps to improve over all health in the body by rebuilding weak immune systems, re-mineralizing poorly nourished bodies, and increasing energy and endurance, resulting in increasing the chance of fertility.

III. Side effects
There is no known major side effect, but occasionally, some people taking maca root may experience goiters, caused by the glucosinolate chemical in it and abnormal allergic immune reaction such as hives, fatigue and flushed skin.

EG. Evening Pirmrose Oil

I. Definition
Evening primrose also known as oenothea biennisis, is one of the biennial and perennial herbaceous flowering plant and native to North and South America. It has been used in traditional medicine in treating breast pain and premenstrual syndrome.

II. How evening primrose effects fertility
1. Linoleic acid
Evening prirose contains high amount of linoleic acid which is one of essential fatty acid. It not only helps the liver in regulating the production of good prostaglandins hormone, resulting in lessening the risks of menstrual cramps and pain in women, but also increases the blood flow to the reproductive organ, leading to increasing the quality of sperm production in men and normalizing the menstrual cycle in women.

2. Gamolenic acid (GLA)
Evening primrose also contains high amount of gamolenic acid (GLA)
a) It can convert to PE1 the good prostaglandins hormone which helps to release the symptom of uterus contraction during menstrual cycle, resulting in lessening the risk of menstrual cramps and pain and increasing the chance to conceive.
b) Immune system

It is said that gamolenic acid also strengthens the immune system in fighting against invasion of bacteria and virus that causes infection and inflammation in the body, including the reproductive organs and decreasing the risk of abnormal immune function that attacks the body tissues, leading to symptom of antibody antigen.

3. Cervical mucus
It is said that evening primrose also contains chemicals which help to improve the production of sperm friendly mucus, resulting in increasing the chance for sperm in the process of egg fertilization.

4. Digestive system
It also helps to treat gastro-intestinal disorders, resulting in increasing the digestive system in absorbing vital vitamins and minerals resulting in lessening the risk of infertility caused by nutrients deficiency.

5. Lung
It also improves the lung function in absorbing oxygen by reducing the effect of respiratory problem such as asthma, thereby increasing the transportation of oxygen and nutrients to the brain cell needs of which decreasing the risks of emotional and physical stress, dizziness, lack of energy and anxiety.

III. Side effects
There are no known side effect, if not over dose.

EH. Schizandra chinensis

I. Definition
Schisandra chinensis is also known as wu wei zi in traditional Chinese medicine, native to Northern China and Russian. It has been used in traditional Chinese medicine in treating all kinds of liver diseases

II. How schizandra chinensis effects fertility
1. Hepatoprotective
Since liver plays a vital role in transforming and clearing chemicals. Weakened liver reduces the liver function in secreting bile in regulating the normal function of spleen in production of insulin, leading to infertility.

2. Lignans
Lignans are considered a phytoestrogen which helps to occupy the estrogen receptor sites in the body, resulting in lessening the risk of over production of bad estrogen during menstrual cycle that causes hormone imbalance and disrupt the natural process of conception.

3. Adaptogen
Since schizandra chinensis is an adaptogen, it helps o to increase the body's resistance to stress, trauma, anxiety and fatigue and promotes over health resulting in normalizing the reproductive system function in the process of natural fertility.

4. Immune system
It is also contains antioxidant property that helps our immune system in fighting against any reproductive infection and inflammation as well as protecting immune abnormal function in attacking our own body tissues.

5. Aphrodisiac property
It also helps helps to increase kidney function in conserving the kidney fluid until the appropriate time of release, thus consuming schizandrae will increase the sperm quality and sperm count as well as sexual desire in men and women alike.

III. Side effects
No side effect is known, if it is not overdosed

EI. Lycium

I. Definition
Lycium is also known as wolfberry or goji berry, native to southeastern Europe and Asia. It is considered as the number 1 super foods by some Chinese herbalists in treating immune dysfunction over thousands of year.

II. How lycium effects fertility
1. Heart Tonic
Lycium contains certain chemicals which help to reduce high blood pressure and promote blood flow in the body, resulting in increasing oxygen and nutrients to the body cell, thus lessening the symptoms of nervous tension, including dizziness, anxiety, stress, etc.

2. Erectile dysfunction
As resulting of increasing blood transprotation in the arteries and blood vessels, lycium helps to treat erectile dysfunction and promote production of quality of sperm, thereby improving the chance of fertility.

3. Liver
It helps to cleanse the body toxins accumulated in the liver, thereby normalizing the liver function in essential fatty acid and carbohydrate metabolism, leading to hormone balancing and over all health.

4. Diabetes

Lycium also has been used in traditional Chinese medicine in treating type II diabetes by increasing the liver function in regulating spleen in production of insulin, resulting in lessening the risk of menstrual symptoms caused fluctuation of levels of insulin, thus increasing the chance of fertility.

5. Kidney
It not only improves function of kidney in maintaining the right levels of fuild in the body, but also helps to hanmonize the kidney yin and yang, resultimg in increasing the chance of quality sperm and sperm count in men and reducing symptoms of menstrual disorder in women.

III. Side effects
No side effect has been record.

EJ. Cordyceps Sinensis

I. Definition
Cordyceps sinensis is also known as dong cong cao in traditional Chinese medicine. It is one of the species of endoparasitoids, native to North Eastern China and has been used in traditional Chinese medicine in treating most cases of cirrhosis of the liver.

II. How cordyceps sinensis effects infertility
1. Liver disease
Traditional Chinese medicine believe that the herb contains some chemicals which help to restore the liver function in fighting against the inflammation of liver caused hepatitis B virus, resulting in increasing the liver function in toxins elimination and improve over all health.

2. Assisting reproductive organ process
It is said that cordyceps sinensis not only helps to increase kidney function in protecting against water retention, but also improve it's normal function in regulating normal function in growth hormone production, leading to increasing the quality of sperm in men and egg extruding in women.

3. Nervous tension
It also helps to improve the respiratory system, resulting in increasing the transportation of oxygen and nutrient to the nervous cells, thereby decreasing the risks of lack of energy, fatigue, stress and depression.

4. Sexual desire
It is said that it also helps to increase the production of testosterone by inhibiting the production of the enzyme 5-alpha reductase, thereby, reducing the conversion of testosterone to gihydro-testosterones DHT, thus increasing sexual desire for men and women alike.

5. Cholesterol
cordyceps sinensisalso helps to improve blood flow by inhibiting the levels of bad cholesterol in the blood stream, resulting in increasing the blood flow to the body including the reproductive organ and decreasing the risk of heart diseases and stoke.

III. Side effects
It is toxic if over dose

F. In Men

FA. Gynostemma pentaphyllum

I. Definition
Gynostemma pentaphyllum also known as jiao gu lan in traditional Chinese medicine, is an herbaceous vine of the family Cucurbitaceae and native to to the southern reaches of China, southern Korea and Japan. It has been used in treating heart diseases caused by high levels of the cholesterol and triglyceride.

II. How gynostemma pentaphyllum effects fertility
1.Blood flow
Gynostemma pentaphyllum is said contains certain chemicals which help to reduce the levels of bad cholesterol and triglyceride in the blood stream, resulting in increasing the blood flow without the need of the heart to work harder, thus reducing the risk of blood stagnation in the the abdominal region, thereby increasing the chance to conceive.

2. Adaptogen
It is considered as an adaptogenic tonic herb, thereby, increasing the body in adapting to the change of environment in effecting emotional and physical 's stress, resulting in decreasing the over production of certain hormones that disrupts the normal function of the reproductive process.

3. Antioxidant
It also helps to improve the immune system in guarding the cell duplication process, resulting in decreasing the risk of over reaction of immune system in producing protein biding to the sperm then kill it.

4. Digestive system
It also helps to stimulate appetite, thus increasing the absorption of vital vitamins and minerals which are essential in nourishing the reproductive organs and enhancing the chance of fertility.

5. Energy
It is said that gynostemma pentaphyllum also contains all property of

ginseng, thereby, helping to improve the liver and spleen in carbohydrate metabolism, leading to increasing energy for our body daily activity and balancing the qi and blood in the abdomen.

III. Side effects
There are no known side effect, if it is not over dose.

FB. Deer Antler

I. Definition
Deer antler has been used in traditional Chinese medicine for over thousands of years in treating anemia and sexual impotence in men.

II. How deer antler affects male fertility
1. Reproductive enhancer
It is said that deer antler contains certain chemicals which help to stimulate the production of certain growth hormones as a result of its androgenic and gonadotrophic effects, leading to an increased production of testosterone that not only promotes sexual desire, but also enhances the sperm quality.

2. Anemia
It is said that deer antler increases the production of red blood cells and improves the iron levels by nourishing the marrow, thereby increasing the absorption of oxygen that is vital for the nervous system in transmitting information between cells and glands. Therefore it leads to reduced symptoms of fatigue, depression and emotional and physical stress.

3. Kidney
Deficiency of kidney yin and yang not only causes a weakened immune system, and the risk of infection and inflammation to our body, including the reproductive organ, but also decreases the production of growth hormones, leading to a disruption of the natural process of our body that increases the risk of early aging and sexual dysfunction.

4. Hormone balancing
Deer antler also helps to stimulate the liver function in regulating the spleen in production of insulin, thereby decreasing the risks of insulin fluctuation.

5. Liver tonic herb
Deer antler is considered to be a liver tonic herb. It helps to remove the toxins accumulating in the liver and enhances the liver function in carbohydrate metabolism which reduces the risks of nervous tension, including fatigue and stress.

III. Side effects

Overdose may cause insomnia and restlessness.

FC. Astragalus

I. Definition
Astragalus is a small shrubs, belongs to the legume family Fabaceae and native to the Northern Hemisphere.It has been used in traditional Chinese medicine to invigorate vital energy.

II. How astragalus effect fertility
1. Immune system
Studyshows that astragalus helps to improve its immunostimulant effects, resulting in lessening the risk of infection and inflammation caused by invasion of bacteria and virus and leading to immune system to attack the body tissues, including sperm

2. Adaptogenic effects
It is also confirmed to be an adaptogenic herb that helps to increase our body in adapting to the change of the environment including toxic chemicals, resulting in lessening the risk of nervous tension, leading emotional and physical stress and anxiety.

3. Diuretic effects
It also helps to maintain the right levels of fluid in body by secreting extra fluid through urinary secretion, thus reducing symptoms of water retention as well as improving kidney yin and yang that enhances the chance of fertility.

4. Qi balancing
It is said that Astragalus helps to re balancing the qi in the body, thereby decreasing the risks of qi stagnation in the reproductive organs, causing low sperm count in men.

5. Cell regulating
It not only helps to regulate the normal cells growth in the body, but also enhances the particle ingestion capacity of white blood cells, leading to improving response in treating cancer patients according study from 1980s, researchers in Houston, Texas.

III. Side effects
There is no known side effect, if not over dose.

FD. Urtica Dioica

I. Definition
Stinging nettles are also known as urtica dioica. It is a perennial flowering plant native to Europe, Asia, northern Africa, and North America. It has been used in traditional Chinese medicine for treating lack of sexual desire.

II. How stinging nettle affects fertility
1. Testosterone
Since it contains high levels of 3,4-divanillyltetrahydrofuran, it helps to promote the production of free testosterone, resulting in an increased quality of sperm count and sexual desire.

2. Kidney
It is said that stinging nettles also helps to balance the yin and yang in the kidney which helps to improve kidney function in regulating the production of growth hormones. This results in increasing sexual desire and improving the reproductive organs for production of sperm in men.

3. Blood flow
It is said that stinging nettle not only helps to increase the production of red blood cells by stimulating the function of bone marrow, but it also enhances the blood in absorbing oxygen which reduces nervous symptoms including fatigue, loss of concentration, and lack of energy.

4. Benign prostatic hyperplasia
Study shows that stinging nettle also helps to smoothen the urination in men due to aging, resulting in increased prostate fluid leading to normal ejaculation.

5. Toxin Cleansing
It is said that it also contains substances that help to cleanse the body of toxins through kidney and liver function. This results in balancing the qi and blood in the body, leading to normal functioning of the reproductive organ, including a normal menstrual cycle in women and increased sperm count in men.

III. Side effects
There are no major side effects, but overdose may cause mild stomach upset, fluid retention, and hives or rashes. Please consult with your herbalist.

FF. Cistanche

I. Definition
Cistanche is also known as rou cong rong. It is a holoparasitic desert plant belonging to the family Orobanchaceae. It has been used in tradition Chinese medicine for replenishing blood and Kidney-Jing.

II. How cistanche affects fertility
1. Sexual desire
It is said that cistanche helps to improve kidney function in regulating the production of steroid growth hormones by replenishing the kidney jing as well as retaining enough fluids in the reproductive organs, resulting in an increased production of testosterone and the chance of fertility.

2. Nervous system
It also contains chemicals that help to stimulate bone marrow in production of red blood cells and it improves blood circulation by decreasing the high blood pressure, resulting in lessening nervous symptoms, such as a lack of energy, fatigue, stress, and tiredness.

3. Blow flow to the reproductive organs
Besides reducing the levels of high blood pressure, it also stimulates the blood flow to the reproductive organs that not only helps to increase sperm quality and count in men and restores the normal menstrual cycle in women, but also treat erectile dysfunction.

4. Kidney
Cistanche also contains substances that help to restore kidney function by balancing the yin and yang qi, resulting in helping the kidney in releasing the qi and blood stagnation in the abdominal region and increasing the chance of fertility and egg implantation into the uterine lining.

5. Constipation
Cistanche also helps to improves the function of the bowels, resulting in healthy bowel movements, leading to increased qi in the digestive system and increasing the digestive system in cleansing toxins, and vitamins and mineral absorption.

III. Side effects
It is no known of side effect. It may be toxic if overdosed.

FG. Rehmannia Glutinosa

I. Definition
Rehmannia glutinosa is also known as di huang in traditional Chinese medicine, belongings to the family Phrymaceae and native to China. It is one of 50 most common used herbs in strengthening the kidney organ.

II. How rehmannia glutinosa effects fertility
1. Kidney Jing
Traditional Chinese medicine believes that rehmannia glutinosa is a kidney tonic medicine when it is used combination with other yang tonic herbs. It

helps revitalize the steroid growth hormone in the body by strengthening the kidney jing, resulting in harmonizing the levels of hormones secretion from the glands, leading to increasing the production of quality sperm and sperm count.

2. Yin Deficiency
Beside stimulating the kidney jing, it also helps to balance the sexual desire as well as erectile dysfunction caused by kidney yin deficiency as resulting in over stimulating kidney yang of other herbs such as deer antler, thereby increasing the chance of fertility.

3. Anemia
It is said rehmannia glutinosa also increases the production of blood and stimulates the production of iron, thus increasing the blood transportation nutrients and oxygen to the body cell needs, resulting in increasing the blood flow to the reproductive organs, leading to fertility.

4. Irregular cell growth
It also contains high amount of vitamin A and C, that help to improve immune function in fighting against infection and inflammation caused by foreign bacteria and virus, thereby reducing the chance for irregular cell growth other than where they suppose to be growth such as endometrial adhesion and implants.

5. Spleen
Rehmannia glutinosa also contains certain chemicals which help to improve spleen function in regulating the production of insulin caused by type 2 diabetes with hyperlipidemia, resulting in lessening the risks of sugar fluctuation in the blood stream of which causing irregular menstruation in women and lower sperm count in men.

III. Side effects
1. It is toxic if over dose
2. It is not suitable for pregnant women
3. It may cause bloating and diarrhoea

Recommended Reading

FH. Male Silk Moth Extracted

I. Definition
Male silk moth extracted is extracted directly from male moth within minutes of escaping from the cocoon, then dried and preserved in the alcohol. It is one most common used Chinese herb and considered as a medicine in strengthening the male reproductive organs and treating male impotency.

II. How male silk moth effects fertility
1. Growth hormone testosterone
It is said that the extracted helps to stimulate the production of testosterone from the glands in the body, resulting in decreasing the risk of erectile dysfunction and improving the production of sperm quality and count.

2. Kidney tonic herb
Male silk moth also contains certain chemicals which not only helps to boost kidney function in regulating the fluid, but also increases its function in hormone harmonizing, resulting in increasing sexual desire and performance.

3. Nervous system
It also helps to increase blood flow to the reproductive organs and provide nutrient to the cells in nervous system, resulting in lessening the risk of nervous tension such as fatigue, stress and anxiety, caused by oxygen deficiency, thus decreasing the risk of low sperm count.

4. Blood tonic
Since it increases blood flow to the reproductive organ including blood to the penis, it helps to decrease the risk of erectile dysfunction in men and increase the sexual performance, including normal ejaculation.

III. Side effects
1. Over dose may cause nervous tension including insomnia, sleeplessness and over active
2. It is advised that do not used any sexual tonic herb, if you are sick
3. No Major side effect, if it is not overdosed

Chapter IX - How to Treat Infertility With Herbalist Perspective

I. In Women

1. Black Cohosh (cimicifuga racemosa)

Black cohosh also known as sheng ma in traditional Chinese medicine is a uterine and ovarian tonic herb. Since it contains estrogen like substance, it helps to balance the estrogen production in the menstrual cycle, leading to normal ovulation and increasing the chance of fertility. Black cohost CAN NOT be taken, if you are pregnant, because of the risk of miscarriage.

2. Chaste tree berry (vitex agnus-castus)

Chaste tree berry is considered as a queen herb by many herbalists in Europe. It is said that it helps to balance the female hormone production in the women body, leading to regular menstrual cycle by inhibiting the levels of FSH and increasing the levels of LH, thereby increasing the chance of ovulation as well as production of progesterone in supporting the fertilizing process.

3. Red clover (trifolium pratense)

Red clover traditionaly is used to treat cough and skin problem. It contains high levels of phytoestrogen which helps to occupy the estrogen receptors in the women body, lthereby, reducing the risks of hormone imbalance, leading to normal menstrual cycle resulting in improve the chance of fertility.

4. Licorice (glycyrrhira glabra)

Licorice has been used in traditional Chinese medicine in harmonizing the hormone imbalance caused by abnormal function of kidney and adrenal gland, thereby decreasing the risk of over production of certain hormone which may interfere with the natural process of fertilization. It also contains phytoestrogen which helps to increase the levels of good estrogen, resulting in a normal menstrual cycle and the chance of fertility.

5. Red raspberry (rubus ideaus)

Red raspberry is an uterus tonic herb. it contain high levels of astrigent and cleansing substance that helps to improve the immune system in fighting against foreign invasion, thereby lessening the risks of immune abnormal function in attacking it own tissue, including production of antibody antigen.

6. Sarasaparilla (smilax officinalis)

Besides helping to relieve constipation, and acidity and blood purifier, sarasaparilla is a reproductive organs and glands tonic herbs, it helps to regulate the production of certain hormones in the women body, including the levels between estrogen and progesterone as well as FSH & LH levels.

7. White willow (salix alba)

White willow is considered as a fertility enhancing herb by many herbalist. It contains substance which can be covert to aspirin like acid, leading to increasing the blood flow to the reproductive organs including supporting the uterine lining in fertilized egg implantation.

8. Panax Ginseng
In TCM panax ginseng is considered as an energizer and tonic for the whole body, particularly for the reproductive organs. It contains synthesis estrogen and progesterone, can be used to lower FSH levels, thereby reducing the risk of hormone imbalance, resulting in normalizing the natural process of hormone production during menstrual cycles and increasing the chance of natural fertilization.

9. Wild yam
Wild yam is a liver tonic herb, it helps to tone, nourish the liver in balancing the hormone production in the body. It also contains steroidal saponins which is an important hormonal precursor for progesterone that helps to provide necessary elements or building blocks for balancing the levels of progesterone and cortisone resulting in decreasing the risk of abnormal implantation and miscarriage.

II. In men
1. Horny Goat Weed (Epimedium grandiflorum)
Horny Goat weed is considered as male reproductive enhancer in traditional Chinese medicine, it helps to normalize the production of levels of testosterone, thereby increasing the sexual desire as well as the quality of sperm.

2. Maritime pine tree
According to October 2002 issue of the Journal of Reproductive Medicine, the chemical agent pycnogenol in maritime pine tree helped to improve the quality and function of sperm in men with fertility problems by a mean of 38% and 19%, respectively, after only 90 days of use. Therefore,it is helpful to increase the chance of fertility for a couple with a male partner having abnormal sperm quality and motility.

3. Maca root
Maca root contains high amount of vitamins including vitamin C, D, and E which is vital for the reproductive system needed for regulating the production of certain hormones during menstrual cycle. Since it is an adaptogenic herb, it not only helps to improve sexual desire by stimulating the production of testosterone, but also acts as a regulator in hormone

production and energy enhancer and distributor.

4. Saw Palmetto
Saw Palmetto besides containing chemical agents which help to boost the levels of sex hormones in men such as testosterone, it also helps to tone, nourish, and empower the male reproductive system as well as relieving and treating enlarged prostate.

5. Flaxseed Oil
Flaxeed oil beside containing high levels of Omega 3 and 6 fatty acids which are essential for regulating the production of certain hormones in the prostaglandins hormones, it also contains high amount of fiber which is vital in helping spleen and liver in maintaining and regulating the levels of insulin in the blood stream and is vital for the natural process in hormone production and egg fertilization during menstrual cycle.

6. Yohimbe
Yohimbe besides containing certain chemicals help to dilate blood vessels in the pelvic region, leading to increasing blood flow to the penis, thereby, decreasing the risk of erectile dysfunction and allowing more blood to reach the penis, it also helps to boost sexual desire as well as increasing quality and motility of sperm.

7. Pumpkin Seed
Beside containing high amount of zinc which is vital for prostate gland, it also acts as hormone production regulator as well as improving sperm production and ejaculation.

8. Cranberry
Cranberry is a kidney tonic herb. Beside helping kidney in maintaining the normal urinary process and fluid in the body, it also helps to regulate the balance of kidney qi as well as healthy levels of kidney jing which is vital for the reproductive function in sperm production.

A. In Women

AA. Black Cohosh (cimicifuga racemosa)

I. Definition
Black cohosh is a glabrous herbaceous perennial plant, producing large, compound leaves from an underground rhizome and belongs to the family Ranunculaceae. It has been used in traditional medicine in treating symptoms of all kinds of gynaecological problems.

II. How black cohosh enhances female fertility
1. Phytoestrogen
It contains high amount of phytoestrogen which helps to occupy the

estrogen receptor sites in our body, leading to hormone balancing resulting in increasing the chance of ovulation and fertility.

2. Blood flow
Back cohosh is blood flow enhancer, it helps to increase the blood production and increase blood flow to the pelvic region resulting in increasing the function of the reproductive organs and the chance of egg implantation into the uterine lining and lessening the risk of infertility

3. Condense Tannins
It also contains condense tannin, a type of proanthocyanidin which has been used as nutritional and therapeutic supplements in Europe in promoting the function of flavonoids that not only helps to improve blood flood, but also reduces the risk of weaken kidney, leading to yi yang imbalance resulting in increasing the risk of infertility.

4. Nervous system
Back cohost is said to contain chemical agent which helps to bind the activities to serotonin receptors, thereby decreasing the risk of depress, anxiety and emotional and physical stress
resulting in decreasing the risk of infertility.

5. ferulic acid
Ferulic acid is an antioxidant which not only helps to neutralize free radicals, but also helps to increase the immune function in fighting against bacteria and virus resulting in lessening the risk of inflammation and reducing the risks of abnormal function of immune system in production of antibody antigen in the uterine mucus.

6. Kidney function diuretic
As kidney enhancer, back cohosh helps to promote the kidney function in the urinary discharge of which not only helps to reduce the risk of water retention, but also helps to lessen the risk of qi imbalance resulting in increasing the chance of fertility.

III. Risks and side effects
1. liver damage
Over dose of back cohosh may cause liver damage.

2. Cancer
Study shows that over dose of tannins for prolong period of time may increase the risks of nasal cancer.

3. Digestive system
Over dose of tannins may interfere with the function of digestive system in absorbing iron, leading to anaemia and digestive disorder resulting in

dizziness, headaches, and seizures; diarrhea; nausea and vomiting. sweating; constipation.

4. Miscarriage
Since it contain high levels of phytoestrogen, using black cohosh may interfere with natural hormone production during pregnancy, thereby increasing the risk of miscarriage.

AB. Chaste tree berry (vitex agnus-castus)

I. Definition
Chaste berry tree is also known as vitex agnus castus, belongs to the Verbenaceae family. It is considered as a queen herb in treating all kinds of reproductive disorder including premenstrual symptoms and infertility as resulting of hormonal imbalance.

II. How Chaste berry tree effects Fertility
1. Androstenedione,
Chaste berry tree contains androstenedione which is the common precursor of male and female sex hormone by converting to estrogen through the enzyme aromatase, thereby decreasing the risks of hormone imbalance that causes infertility.

2. Epitestosterone
Epitestosterone is an inactive epimer of the hormone testosterone which has been used to enhance athletic performance for some athelic during competition. It helps to improve sexual desire and sexual performance, thereby increasing the chance of fertility as resulting of production of testosterone.

3. Hydroxyprogesterone
Chaste tree contains plant hydroxyprogesterone which is a steroid hormone produced during the synthesis of glucocorticoids and sex steroids. It helps to raise the levels of progesterone if it is loo low and reduces it when it is too high in the women body, leading to hormone balancing and increasing the chance of fertility.

3. Progesterone
It's leave also contain plant progesterone which helps to regulate the levels of progesterone body that is necessary for a natural conception as resulting of hormone balancing.

4. Iridoid
It also contains iridoid which is often intermediates in the biosynthesis of alkaloids that helps to improve the immune system in fighting against inflammation resulting in lessening the risks of immune system abnormal

function in production of antibody against sperm invasion.

5. Glycoside
Glycoside is a flavonoid which acts as an antioxidant as resulting of increasing uric acid levels by expelling flavonoids from the body antioxidant, thereby increasing the immune system in fighting against forming of free radical as well as guarding our body against infection and inflammation, leading to abnormal function of immune system.

5. Essential oil
The essential oil of chaste beery tree contains cineol, pinene, monoterpenes, etc. It is said that helps to balance the hormone in the body including reproductive hormone as resulting of it's plant progesterone and ability in regulating the pituitary gland and harmonizing the endocrine system.

6. Prolactin
It is said that chaste berry tree not only helps to regulate the menstrual cycle after stopping the conceptive pill, but also balances the prolactin hormone in the women body. It raise it, if too high and low it when it is too low.

III. Risks and side effects
1. Allergic effects as resulting of normal immune system overreaction to the chemicals in the tree for the first time user.

2. Nausea
It may cause nausea for some women who take the chaste berry tree in the first time as resulting of inability of digestive system in adjusting to the herb.

3. Gastric irritation
Taking chaste berry tree supplement in empty stomach may cause gastric irritation as resulting of it' s essential oil effects.

4. Headache
Since it contains alcohol, it may cause headache for some women.

AC. Red clover (trifolium pratense)

I. Definition
Red clover is an herbaceous, perennial plant, native to Europe, western Asia and northwest Africa, it has been used traditional in treating whooping cough, respiratory problems, and skin inflammations by purifying the blood and clearing mucus from the lungs.

II. How red clover effects women fertility
1. Vitamin C

Vitamin C besides helps to increase the strength of small veins in the reproductive organ in blood transportation, it also increases the immune system in fighting against the invasion of bacteria and virus that causes inflammation of infection to the reproductive organs.

2. B6 vitamin
Red clover contains vitamin B6 which is vital for women with luteal phase deficiency. Researchers found that intake of vitamin B6 helps to increase the luteal phase period, thereby increasing the chance of fertility.

3. Magnesium
Researchers found that women with unexplained causes of infertility are found to have low levels of magnesium in their body, leading to stress and impair the reproductive organs natural process of conception as resulting of high levels of serotonin.

4. Calcium
Besides it is necessary for formation of bone density and absorption of magnesium, it also plays an important role in triggering growth in the embryos. Deficiency pf calcium may increase the risks of early birth, miscarriage and birth defect.

5. Potassium
Red clover contains high levels of potassium, which is necessary in regulating the lymphatic function of fluid in the body. Deficiency of potassium causes water retention and increases the risk of premenstrual symptoms and lessens the chance of infertility.

6. Isoflavones
Red clover contains isoflavonoid which is one type of phytoestrogen helped to regulate the levels of estrogen in the body by occupying the estrogen receptor site, thereby, decreasing the production of bad estrogen from the body, leading to hormonal balancing and increasing the chance for fertility.

III. Side effects
There are no side effects from red clover, but people takes the herb for the first time may experience headache, nausea, and rash. Over dose of red clover for a prolong period of time may have opposite effect in fertility.

AD. Licorice (glycyrrhira glabra)

I. Definition
It has been used in traditional medicine in treating liver disease and

respiratory tract problem

II. How licorice effects women fertility
1. Digestive system
Licorice is said to improve the digestive system in absorbing vital vitamins and minerals, thereby decreasing the risks of nutrients deficiency and unexplained infertility.

2. Blow flow
It also helps to improve the blood flow in the body by inhibiting the levels of bad cholesterol and triglyceride levels resulting in reducing the risks of blood stagnation in the abdominal region and increasing the chance to get pregnant.

3. Glycyrrhizin
Glycyrrhizin helps to stimulate the activity of the adrenal glands in regulating the levels of cortisol, resulting in lessening the risks of over production of serotonin that cause hormone imbalance.

4. Phytoestrogen
It contains phytoestrogen which is important in regulating the levels of estrogen during menstrual cycle and hormone balancing, resulting in increasing the chance of regular menstrual cycle and the chance to conceive.

5.Vitamin E
As an antioxidant, it helps to improve the immune system in fighting against foreign invasion, thereby, lessening the risks of infection and inflammation to the reproductive organ and increasing the chance of fertility.

6. Lecithin
Lecithin is a fat like substance called a phospholipid, it helps to protects cells from oxidation surrounding the brain, thereby preventing the abnormal function of the brain cells in information transmitting, reducing the nervous tension such as stress, anxiety and depression and damping the chance of fertility.

III. Risks and side effects if overdose
1. It may raise blood pressure as the heart must work harder.

2. It may increase the risk heart diseases and headache as resulting of over stimulating the blood flow to the body and the brain accordingly.

3. It may be toxins and damage the liver and kidney

AE. Red Raspberry (rubus ideaus)

I. Definition
Red raspberry also known as raspberry or rubus ideaus, is a edible fruit species belongs to genus Rubus. It has been used in many cultures in assisting pregnancy due to it's antioxidant properties.

II. How Red Raspberry effects fertility
1. Antioxidant
Red raspberry contains high amount of anthocyanin pigments which is one of many powerful antioxidant existed in the fruit. Beside helping to fight against infection and inflammation caused by foreign invasion, it also helps to improve immune function in regulating cell growth as well as fighting against the forming of it's antibody antigent that reduce the risk of abnormal immune function in attacking it's own tissues, including sperm.

2. Fiber
Fiber is important for the regulating the blood levels in our body. Without or not enough of it may cause fluctuation of insulin, leading to food craving, symptoms of irregular menstrual cycle that increase the risk of infertility.

3. Vitamins and minerals
Red raspberry contains high levels of important vitamins and minerals including vitamin C, B complex, folic acid, magnesium, copper and iron which is not only vitals for maintaining maintaining the regular function of our body's organs, but also helps to improve the regular menstrual cycle by providing the necessary blood flow to the reproductive organs, resulting in enhancing the chance of fertility.

4. Quercetin
Quercetin besides is a powerful natural antioxidant by inhibiting enzymes, such as lipoxygenase which cause inflammation in our body, it also helps to reduce the levels of bad cholesterol in the blood stream, leading to increasing the blood flow to the reproductive organ that are important for a regular menstrual cycle.

5. Gallic acid
Gallic acid is a colourless crystalline aromatic compound, Beside helping to fight against cell oxidate damage, it also has anti-fungal and anti-viral properties that is essential for maintaining a healthy reproductive system against infection.

6. Anthocyanins
Anthocyanins is also one of the flavonoids, besides helping to strengthen the immune system, it also helps to regulate the DNA duplication of cell in the body resulting in lessoning the risk of irregular cell growth in the abdominal

region.

7. Cyanidins
Study shows that cyanidins inhibit development of obesity and diabetes, thereby decreasing the risk of fertility caused by symptoms of diabetes (fluctuation of insulin and decreasing blopd flow to the reproductive organs) and overweight (hormonal imbalance of estrogen and progesterone and premenstrual syndrome)

III. Risks and Side effects
There is no known risk and side effect, if not overdose.

AF. Sarsaparilla (smilax officinalis)

I. Definition
Sarsaparilla is also known as smilax officinalis in herbal medicine, it is a perennial trailing vine, native to Central America and has been used in traditional herbalist as a reproductive organs and glands tonic medicine.

II. How sarsaparilla effects fertility
1. Liver detoxification
Herbalist believes the plant contains substance which helps to remove toxins from the liver, thereby increasing the liver function in regulating hormonal production (estrogen and prostaglandins family) and levels of insulin in the blood stream, leading to reducing the risk of irregular menstrual cycle and increasing the chance of fertility.

2. Blood purifier
It also is a blood tonic herb. Besides helping to increase the transportation of nutrients to the body cell needs, it also increases blood flow to the reproductive organs, resulting in decreasing the risk of reproductive organs blood stagnation.

3. Immune system
It also increases the immune function in fighting against infection and inflammation caused by foreign invasion, resulting in increasing the chance of fertility.

4. DNA regulating
Sarsaparilla also helps to regulate the DNA duplication in normal cell growth, thereby decreasing the risk of endometrial adhesion and implants which grow somewhere else in the reproductive region other than in the endometrium.

5. Antibody antigen
Since it helps to increase the immune function as resulting of expelling the toxins through urinary extraction and stool, it reduces the risk of immune system abnormal function in attacking it's own tissues by viewing sperm as foreign invasion.

III. Risks
Over dose of sarsaparilla may causes digestive disorder and kidney impairment.

AG. White Willow (salix alba)

I. Definition
White willow is also known as salix alba in herbal medicine, native to Europe and western and central Asia and has been used in traditional medicine as fertility enhancing herb. native to Europe and western and central Asia.

II. how to treat infertility with white willow (salix alba)
1. Blood thinner
It contains high levels of salicin which converts into salicylic acid that helps to increase blood flow to the reproductive organs as resulting of thinning of blood, thereby reducing the risk of blood stagnation in the abnormal region and increasing the chance of fertility.

2. Kidney Yin deficiency
It is one of the cool to cold herb which is used in treating infertility in women and man alike caused by kidney yin deficiency caused by over eating of spice foods or working in hot environment.

3. Immune system
It is said that white willow also contains high levels of antioxidant which helps the immune system in guarding our body against infection and inflammation by inhibiting the effect of intermediate enzyme.

4. Vitamin C
White willow contains high levels of natural vitamin polypeptide C which not only helps to improve the immune function in fighting against the forming of free radicals and foreign invasion but also increases the blood flow to the reproductive organ by strengthening the capillaries in men and women alike, resulting in lessening the risk of sexual libido and enhancing the chance of conception.

5. Liver function

It is also the liver tonic herb, thereby increasing the liver in toxins elimination resulting in increasing the liver function in regulating the levels of prostaglandins family thereby, reducing the risk of menstrual pain and cramps and enhancing normal menstrual cycle.

B. In Men

BA. Horny Goat Weed (Epimedium grandiflorum)

I. Definition

Horny goat weed is also known as Epimedium grandiflorum and Yin Yang Huo in traditional Chinese medicine, belongs to the family Berberidaceae and native to central, southern and eastern Asia. It has been used widely in enhancing the sexual activity and fertility in men.

II. How horny goat weed effects men fertility

1. Icariin

Horny goat weed contains icariin, which helps to increase the levels of nitric oxide, which relax smooth muscle, thereby increasing the blow flow to the reproductive organs in men resulting in increasing the sexual libido and decreasing the risk of sexual dysfunction.

2. Aphrodisiac effects

Traditional Chinese medicine believes that horny goat weed helps to enhance the fertility in goat by increasing the production of testosterone thereby, it may have the same effect in men as well. In fact, it has been proven effectively in the rural China and many men have used it to increase sexual performance and the chance for fertility.

3. Yang qi deficiency

Traditional Chinese medicine believes that most cases of sexual dysfunction and libido are caused by yang qi deficiency or low levels of testosterone. Horny goat week contains substances which help to raise levels of yang qi in the body and reduce the qi stagnation in the abdomen resulting in increasing sexual desire and enhancing production of quality sperm.

4. Kidney enhancer

Horny goat weed also helps to increase kidney function in strengthening the levels of kidney jing
and in regulating the sperm production. Deficiency of kidney yang may interfere with the function of reproductive organ in sexual activities including sexual libido, low sperm count and sexual dysfunction in some cases.

5. Liver enhancer

It also helps to increase the liver function in regulating the spleen function in insulin production, resulting in reducing the risk of insulin fluctuation

leading abnormal production of serotonin and increasing the risk of sexual libido.

III. Risks
1. Hypertension
Since it helps to increase the qi and blow flow to the reproductive organs,peole with hypertension should consult with their herbalist before applying.

2. Insomnia
Over dose may cause over abundant yang qi, leading to sleeplessness.

3. Nervous tensions
It may cause yin qi deficiency leading to nervous tensions.

BB. Centella Asiatica (Gotu Cola)

I. Definition
Centella asiatica also known as gotu cola, is a small herbaceous annual plant belongs to the family Mackinlayaceae. It has been used in traditional Chinese medicine in treating hypertension.

II. How to treat male infertility with centella asiatica (gotu cola)
1. Blood flow
Centella asiatica is said to contain chemical substances which help to reduce levels of high blood pressure caused by over abundant of yang qi in the body, resulting in blood stagnation in the abdominal region and lowering the function of test in sperm production.

2. Immune system
It also helps to increase immune system in fighting against forming of free radicals and bacteria and virus invasion, resulting in lessening the risk of infection and inflammation to our body including the reproductive organs that causes infertility.

3. Adatogen
Centella asiatica is an adaptogen, it helps to reduce the nervous tension caused by abnormal production of certain hormones, resulting in increasing the chance of hormonal harmony, leading to increasing of sexual desire and production of quality sperm.

4. Diuretic
It is one of kidney enhancing herb. By stimulating the kidney function in urinary extraction, it helps reduce symptoms of water retention and toxins accumulation in the body. As we know, strong kidney is vital for

reproductive organs for regulating the growth hormone including estrogen and testosterone.

5. Anxiolytic
Centella asiatica is also an antianxiety agent which helps to regulate the production of levels of serotonin which cause depression and anxiety, resulting in increasing the production of testosterone that is vital for increasing sperm production.

III. Risks
1. Cholesterone
Over dose of centella asiatica may cause high levels of cholesterol, therefore people with high levels of cholesterol should consult with their doctor before applying.

2. Digestive disorder
Over dose may also cause digestive disorder, including nausea and stomach upset.

BC. Maritime Pine Tree (Pinus pinaster)

I. Definition
Maritime pine tree also known as pinus pinaster, it is a pine, belongs to the family Pinaceae and native to the western Mediterranean region. It has been used in traditional medicine to strengthen the immune system fighting against infection and inflammation.

II. How to treat male infertility with maritime pine tree
1. Pycnogenol
Researchers found that Pycnogenol extracted from the maritime pine tree improves the quality and function of sperm in men with fertility problems by a mean of 38% and 19%, respectively, after only 90 days of use, because of it's bioavailable and bioactive antioxidant compounds.

2. Procyanidin
Maritine pine tree contains high levels of procyandin which is an powerful antioxidant not only helps to strengthen the immune system fighting against forming of free radicals, but also decreases the risk of oxidative sperm cells resulting in increasing the quality and motility of sperm.

3. Vitamin A
Beside is powerful antioxidant, it also helps to maintain the friendly cervical mucus that is important for the invasion sperm and helps to stimulates the production of follicles and certain hormone for process of egg fertilization and implantation into uterus.

4. Vitamin C
Vitamin C not only helps to reduce the risk of infertility caused by nutrients deficiency, it also increase the blood flow to the abdominal region by strengthening the wall of small vein in the test, leading to increasing the sperm quality and motility.

5. Organic acids
Maratine pine tree also contains high levels of oganic acids which helps not only the digestive system in absorbing vital vitamins and minerals for our body needs, but also increases the production of quality sperm and sperm motility.

III. Risks
Over dose risk, please consult with your herbalist before applying.

BD. Saw Palmetto

I. Definition
Saw palmetto is a most popular extracted form from the fruit of serenoa repens and has been used in in traditional medicine in treating kidney and reproductive problems.

II. How saw palmetto effects male infertility
1. Phytoesterol
Phytoesterol is the group phytochemicals which helps to lower the cholesterol in the blood stream, thereby, preventing not only heart diseases but also increasing blood flow to the reproductive organs resulting in increasing the quality and motility of sperm.

2. Fatty acid
Saw palmetto contains high amount of essential fatty which is vital for liver in fat and protein metabolism, resulting in balancing the production of certain hormones including production of testosterone that is vital for increasing the production of sperm quality and count.

3. Kidney
Traditional Chinese medicine believes, by balancing the yin and yang qi in the kidney and protecting the function of kidney jing, it not only helps to eliminate the toxins in the body through urinary extraction, but also normalize the function of kidney in regulating production of steroid growth hormone including testosterone, thereby, increasing sexual desire and strengthening the sperm quality.

4. 5-alpha reductase
5-alpha reductase is an enzyme produced only in specific tissues of the male

human body and presented abundantly as men age. Researcher found that saw palmetto helps to inhibit the levels of 5-alpha reductase, resulting in increasing the production of testosterone thereby, lessening the risks of sexual libido and sperm count.

5. Prostate gland
It has been proven that saw palmetto helps to treat benign prostatic hyperplasia resulting in improvement in urinary symptoms and flow, thereby helping kidney in toxins elimination and reducing the risk of kidney yin yang imbalance, resulting increasing the production of sperm quality and reducing the risk of poor ejaculation.

III. Side effects
1. No major risk
2. Mild allergic reaction
3. Mild gastrointestinal disorder

BE. Flaxseed

I. Definition
Flax also known Linum usitatissimum is a member of the genus Linum, belongs to the family Linaceae, it's seed has been used in traditional medicine in treating heart diseases caused by high levels of cholesterol.

II. How flaxseed oil effects male fertility
1. Essential fatty acid
Flaxseed oil contains high levels of essential fatty acid Omega 3 and 6, it not only help to eliminate the trans fat and saturate fat through liver waste elimination, but also helps to increasing blood flow to the reproductive organs resulting in increasing the production of sperm count and sperm quality.

2. Lignan
flaxseed contains high amount of ligan, it is proven in helping to strengthen not only the immune system in fighting against irregular cells growth, but also improve it's function in protecting the body own tissues, including sperm.

3. Lecithin
Lecithin is a fat like substance (phospholipid) found in flaxseed not only helps to inhibit the levels of bad cholesterol, but also is a key building block of cell membranes resulting in protecting protects cells from oxidation in the surrounding the brain, thus lessening the risk of nervous tension, hormone imbalance and low libido.

4. Fiber
Flax seeds contain high amount of fiber which is vital in helping liver in regulating spleen in insulin production, resulting in decreasing the risk of blood stagnation and qi imbalance in spleen, leading to normalizing the production of testosterone and increasing the chance of good quality sperm production.

5. Alpha linolenic acid
It also contains high levels of alpha linolenic acid which is vital for a healthy prostate gland, resulting in increasing the kidney function in regulating sperm production as well as strong ejaculation.

III. Side effects
1. Intestinal blockage, if it is taken in large amounts. Please remember to drink a lot of liquids to avoid this to happen.
2. Because of it' high concentration of fiber, it may reduce the effectiveness of some oral medicine.

Recommended Reading

BF. False Unicorn Root

I. Definition
False unicorn root is an herbaceous perennial plant, native to North America. it has been used in traditional Chinese in treating sexual libido and enhancing the sexual performance in men.

II. How false unicorn root effects male fertility
1. Treating kidney yin deficiency
Since it is considered as a cool to cold medicine, it helps to harmonizing the kidney function in regulating the production of sperm, if kidney yin deficiency is the cause of infertility.

2. Sexual dysfunction
False unicorn has an adaptogenic or balancing effect on sex hormones, therefore it not only helps to reduce nervous system fighting against emotional and physical stress and depression, it also helps to increase production of testosterone naturally, resulting in increasing sexual desire and correcting sexual dysfunction.

3. Immune system
It also helps immune function in regulating cells growth and fighting against infection and inflammation, resulting in increasing the immune system in recognizing it's own tissue without attacking them.

4. Liver
False unicorn root is a liver tonic herb. Since sluggish liver not only causes abnormal function in production of certain hormone in the body, it also increases the risk of abnormal function of spleen, leading to blood sugar fluctuation, resulting in increasing the blood stagnation in the abdominal region, thus reducing the reproductive organs in sperm production.

5. Digestive System
It is said that false unicorn root also helps to increase the digestive system in absorbing vital vitamins and minerals during digestive process, resulting in lessoning the risk of sexual libido and abnormal sperm production caused by nutrients deficiency.

III. Side effects
There are no major side effect, but it may cause some side effect, if it is taken with other medicine. DO NOT use false unicorn root if you're pregnant or breast-feeding.

BG. Wild Yam

I. Definition
Wild yam also known as Dioscorea villosa, it is a species of a twining tuberous vine, native to n North America. It has been used by herbalists in treating treat menstrual cramps and problems related to childbirth as well as stomach upset.

II. How wild yam effects male fertility
1. Cholesterol
It is said that wild yam containing certain substances that help to reduce levels of triglycerides in the blood stream, resulting in lessening the risks of hardening arterial wall and high blood pressure and increasing the blood flow to the reproductive region, leading to improving of quality sperm production.

2. Anti-inflammatory
It also helps to increase immune function in guarding our body against inflammation caused by bacteria and virus, resulting in lessening the risk of reproductive inflammation of which causes abnormal sperm production and sperm count.

3. Liver
Wild yam also is a liver tonic herb, it helps to strengthen the liver function in regulating the production of insulin of the spleen, thereby, decreasing the risks of blood sugar fluctuation, leading to hormone imbalance thus, lowering the production of testosterone and sexual desire.

4. Adrenal glands enhancer
It also helps to assist the adrenal glands in regulating the production of hormones and is used to balance the hormones, thereby, increasing the levels of testosterone in the men body as well as sperm production in male reproductive organs.

5. Digestive absorption
Wild yam also helps to increase the function of digestive function in nutrients absorption, thereby, decreasing nutrients causes of infertility.

III. Side effects
Over dose of wild yam may cause nausea, diarrhoea.

Chapter X- How to Treat Infertility With Vitamins

1.Vitamin B12
Vitamin B12 besides is a vital vitamin for the development of the fetus during pregnant, it also helps to treat hypothyroidism, thereby decreasing the risk of hormone imbalance caused by low thyroid gland, resulting in normalizing the women menstrual cycle, thus increasing the chance of fertility.

2. Folic Acid
Folic adcid besides plays a vital in increasing the production of iron, it also helps to strengthen and restore cervical tissues, resulting in decreasing the risk caused by damaging cervix.

3. Vitamin C
Beside helping to boost the immune system as an antioxidant fighting against forming of free radicals, it also helps to strengthen the small veins in the body, including the veins in the reproductive organs, thereby increasing blood flow to the penis and uterus.

4. Vitamin D
vitamin D besides is important for calcium absorption, it also increases the immune function in fighting immune abnormal reaction caused by allergies, thereby decreasing the immune protein binding to sperm or producing sperm hostile mucus.

5. Vitamin E
Vitamin E is another antioxidant, besides boosting the immune system, it also helps our body in regulating cells growth, resulting in lessening the risk of tumor, fibroids and cancer, caused by abnormal cell duplication.

A. Vitamin B12

1. Reproductive organ enhancer
Researchers found that vitamin B12 not only is vital for the development of healthy fetus and embryo but also improves the fertility rate. Deficiency of B12 may interfere with division of cells and cells growth, leading to miscarriage and making conception more difficult.

2. Blood flow
Vitamin B12 also helps to dicrease the risk of heart disease and increases the blood flow to the body in transportation of oxygen to the body including the reproductive organ, thereby decreasing the risk of blood stagnation in the abdomen.

3. Nervous system
It is also important to boost the nervous in regulating the production of certain hormone in the body, resulting in lessening the risk of over production of certain hormone that normalizes the menstrual cycle for women.

4. Endometrium
It is said that vitamin B12 helps to boost the endometrium lining in egg fertilization, resulting in decreasing the risk of miscarriage and increasing the chance of egg implantation in artificial insemination.

5. Ovulation assisting
It is considered one of the vitamin necessary for normal ovulation. Study founds that deficiency of vitamin B12 may causes irregular ovulation or not ovulation at all, making conception difficulty for some women.

B. Vitamin C

1. Reproductive organs
Vitamin C helps to strengthen the capillaries, thereby decreasing the risk of internal blood leaking, leading to increasing blood flow to the reproductive organ including the penis and uterus, thereby, decreasing the chance of erectile dysfunction in men and decreasing the risk of egg fertilization failure.

2. Antioxidant
It is also one of the powerful antioxidant that helps the immune system in

guarding our body against any invasion of bacteria and virus, thereby decreasing the risks of infection and inflammation to the reproductive organs.

3. Nutrients
By assisting the digestive system in absorbing vital vitamins and minerals, vitamin C helps to increase nutrients to our body cell, resulting in decreasing the risk of infertility caused by nutrients deficiency.

4. Testicle cancer
A new Danish study reported at Johns Hopkins InteliHealth on February 26, 1999 found that deficiency of vitamin C not only increases the risk of testicle cancer but also decreases the chance of fertility

5. Antibody antigen
Since vitamin C plays an important role in assisting immune system fighting against formingof free radicals, it also helps to reduce the risk of abnormal function of a certain class of protein of immune system which binds to the sperm and allows other immune cells to attack them.

C. Vitamin D

1. Calcium absorption
Vitamin D helps to improve the maximum absorption of calcium by our digestive system. Deficiency of Vitamin D normally also causes calcium deficiency, leading to nervous tension and decreasing the function of uterus in supporting the embryo to growth, resulting in miscarriage.

2. Irregular cell growth
Vitamin D plays an important role in strengthening the immune system in regulating cell growth. Deficiency of vitamin D causes increase risk of cancer.

3. Liver and spleen function
Liver requires vitamin D to stimulate and regulate the spleen function in production of insulin. Deficiency of vitamin D causes insulin fluctuation, leading to type II diabetes that not only effects the heart in pumping blood through out the body, but also decreases blood flow to the reproductive organs.

4. Nervous tension
It is also important for adrenal gland in regulating the production of tyrosine hydroxylase. Deficiency of vitamin D causes imbalance of hormones, leading to nervous tension such as stress, anxiety, fatigue, lack of energy, and depression.

5. Leptin secretion
Vitamin D also slow down the production of leptin from the fat cells, thereby, increasing the brain in controlling the weight gain or loss, resulting in increasing the chance of fertility.

6. Antibody antigen
It alsp helps to increase the immune function in fighting bacteria and virus invasion, thereby, decreasing the abnormal function in production of a certain class of protein which bind to sperm cells and allow other immune cell to attack them.

D. Vitamin E

1. Antioxidant
Vitamin E is a powerful antioxidant, it helps to improve the immune system in regulating the cell duplication and minimize the risk of cell oxidation. Deficiency of vitamin E may increase the risk of irregular cell growth, leading to fibroids, endometrial adhesion and implants as well as tumor in the reproductive organ in women and increasing the risk of oxidative sperm in men.

2. Hormone production
It also plays an vital role in balancing the production of sex hormones by regulating the function of glands. Deficiency of vitamin E causes decreasing of testosterone, leading to lower sperm count that interferes with fertility.

3. Egg quality
Researcher found that deficiency of vitamin E causes poor egg quality, resulting in increasing the risk of birth defect and miscarriage.

4. Sexual lubrication
It is said that vitamin E helps to increase the production of lubrication in the vagina, thereby decreasing the pain caused by penis penetration during sexual intercourse, resulting in increasing the chance of fertility for some women.

5. Blood flow
It is said that vitamin E also helps to improve the heart function in providing nutrients and oxygen for our body cells and regulating the blood flow to the body, resulting in lessening the risk of blood stagnation in the abdomen, thus increasing the chance of fertility.

F. Folic Acid Effects Fertility

1. Red blood cell

Folic acid is vital for red blood cell production. Deficiency of folic acid decreases the function of blood in transporting nutrients and oxygen to the body cells, resulting in increasing the risk of abnormal brain cells in transmitting information between themselves and glands, leading to over and under production of certain hormone that interferes with normal menstrual cycle and fertility.

2. Norepinephrine
it plays a dual role as a hormone and a neurotransmitter, it affects the brain in response to actions and control. Deficiency of folic acid causes imbalance of levels of norepinephrine hormone, leading to interrupting the information transmitting resulting in depression and emotional and physical stress.

3. Serotonin
Serotonin is a hormone secreted when our body under stress. Folic acid deficiency causes over production of serotonin hormone, leading to imbalance of hormone progesterone that interferes with normal menstrual cycle and disrupts ovulation.

4. Nervous system
It is said that folic acid helps to synthesize genetic material in every cell of the body. Deficiency causes abnormal cell growth and DNA duplication abnormality that disrupts the sperm in egg fertilization and increases the chance of birth defects.

5. Neural tube defects
Researcher found that deficiency of folic acid before and during pregnancy causes neural tube defects as resulting of abnormal genetic synthesizing.

Chapter XI- How to Treat Infertility With Minerals

1. Calcium
Calcium besides is vital in maintaining strong bone density , it also helps to

increase the function of heart in blood circulation, resulting in increasing blood flow to the reproductive organ, thus promoting natural fertility.

2.Copper
Coper is important in neuro transmitting information between grain cells and regulating the hormone production of the glands. Deficiency or high level of copper disrupts these processes, leading to hormone imbalance and nervous tension, thus lessening the chance of fertility.

3. Zinc
Zinc besides is important in treating enlarged prostate, it also helps to strengthen the testes in sperm production with the assistance of testosterone, resulting in increasing the quality of sperm. Deficiency of zinc causes low levels of testosterone, thus increasing the risk of sexual dysfunction and poor sperm quality.

4. Iron
Iron besides is vital for the absorption of oxygen from the lung, it also helps to increase nutrients to the body and induce ovulation, leading to natural conception. Deficiency of iron may increase the risk of miscarriage and birth defect.

5. Magnesium
Magnesium helps to protect our body against cardiovascular diseases and immune dysfunction, thus increasing blood flow to the reproductive organs and strengthening the immune function in fighting against cell oxidation, thereby preventing infertility caused by blood stagnation and promoting healthy sperm quality and count.

6. Manganese
It is said that deficiency of manganese not only causes the low sperm count and quality, but also increases the risk of testicular degeneration.

7. Selenium
Selenium is important to prevent sperm oxidation, thereby increasing the sperm quality and deceasing the risk of abnormal cells growing into reproductive organs including endometriosis and fibroids.

A. Calcium

I. How calcium effects fertility
1. Neutralizing stomach acid
Calcium is vital to helps the digestive system in maintaining the right levels of stomach acid, thereby reducing the risk of diarrhoea and increasing the system in absorbing vital vitamins and minerals, resulting in lessening the

risk of infertility caused by nutrients deficiency.

2. Blood vessel expansion
It also helps to stimulate the blood muscle to expanse, thereby, decreasing the over working heart and lowering the high blood pressure and increasing the blood flow to the body. including the abdominal organs.

3. Insulin
Calcium also plays an important roles in insulin secretion from pancreas, because this secretion cannot occur without the existence of calcium. If calcium in the exterior fluid surrounding insulin secretion cells namely, B (beta) cells in the islet of langerhans, is removed or the calcium channels are blocked, insulin secretion is also blocked as well, leading to insulin imbalance, causing irregular menstrual period in women and lower sperm quality in men.

4. Transmitting information between nervous cells
Calcium also is vital for improving the functions of brain cell in transmitting information between themselves and our body glands. Deficiency of calcium may distort these function, thus increasing the nervous tension and hormone imbalance, leading to over production of certain hormones that decrease the chance of fertility

5. Healthy bone and muscle
Since pregnancy require a lot of energy as welling as strong bone and muscle to carry the baby to full term, thereby, a woman with a healthy bone and muscle is necessary to trigger the brain function in thinking of the readiness of reproductive organs for fertilization.

II. Risks and side effects
1. High levels of calcium in the blood (hypercalcemia) may impair kidney function
2. High levels of calcium may reduce the absorption of essential minerals, including iron, zinc, magnesium, and phosphorus
3. It may interact with several types of medication
4. Deficiency of potassium may cause higher urinary calcium excretion from the kidney.

B. Copper

I. How copper effects fertility
1. Immunity
Copper is vital in maintaining the production of antibodies and white blood cells as well as antioxidant enzymes, thereby increasing the immune system in fighting against infection and inflammation and preventing the immune abnormal function of antibody antigen production.

2. Enzyme production
Low levels of copper may alter enzyme systems in regulating the reproductive function in offspring production, leading to decreasing of the chance of fertility caused by sexual libido and low quality sperm production.

3. Nervous symptoms
Since our brain requires certain amount of copper in transmitting information. Deficiency of copper increases the risk of stress, resulting in over production of certain hormones (adrenaline and serotonin), leading to nervous tension including emotional and physical stress.

4. Anaemia
Although zinc is important for the reproductive health, overdose of zinc may cause copper deficiency, leading to low red blood count and decreasing the blood function in oxygen absorption, thus increasing the risk of blood and nutrients deficiency, causing irregular ovulation in women and lower quality of sperm in men.

II. Side effects and risks
1. Over dose of copper is toxic and may cause unexplained infertility
2. Intake of copper supplements may increase the levels of gastric acids.
3. Over dose of copper for prolong period of time may cause liver and kidney diseases.

C. Zinc

I. How zinc effects fertility
1. Nervous system
Zinc is vital for braincells in transmitting information between themselves and glands, thereby decreasing the risk of nervous tension and abnormal function glands in production of certain hormone. resulting in lessening nervous symptoms and increasing the chance to conceive.

2. Enlarged prostate
Zinc is proven to help in reducing the size of enlarged prostate in men, resulting in restoring the width of the urinary tract and maintaining proper fluid that help to improve the sperm ejaculation and prevent retrograde ejaculation as well as sperm count.

3. Cell growth
Zinc is vital for female fertility, besides promoting proper cell division, a process critical to the earliest stages of conception and fetal development, it also helps to regulate normal cell growth, resulting in lessening the risk of endometrial adhesion and implants, fibroids, cyst, etc.

which may interfere with egg fertilization.

4. Circulatory system
Study show that zinc is vital trace mineral for a healthy heart, it not only helps to lower the levels of cholesterol, but also increase the blood absorption of oxygen. resulting in increasing blood flow to the entire body, including the reproductive organs, thereby enhancing fertility.

5. Immunity
Zinc also helps to increase immune system infighting against infection and inflammation caused by invasion of bacteria and virus, thereby decreasing the risk of reproductive infection and increasing the chance of fertility.

II. Risks and side effects
Over dose of zinc may cause
1. Copper, iron and magnesium deficiency
2. Risk of immune dysfunction and low levels of good cholesterol (HDL).

D. Iron

I. How mineral- iron effects fertility
1. Increasing blood flow
Iron not only is necessary for the fetus to grow, it also plays a vital role for women who try to conceive because it helps to stimulate the production of red blood cells, thus increasing the oxygen absorption into the blood stream, resulting in lessening the risk of anemia.

2. Energy
It also helps to turn glucose into energy by stimulating the production of hemoglobin which is a essential element in red blood cells for carrying oxygen from the lungs to the cells in the body. In each cell, oxygen is used to release maximum energy from the food that you eat. Deficiency of iron causes low level of hemoglobin, leading fatigue, dizziness and nervous tension.

3. DNA synthesis
Iron is required by ribonucleotide reductase (RNR) and other enzymes involved in cell division. RNR plays a critical role in regulating the total rate of DNA synthesis so that DNA to cell mass is maintained at a constant ratio during cell division and DNA repair. Deficiency of iron distorts the ratio, leading to DNA being damaged, causing birth defects and miscarriage.

4. Menstruation
For women with heavy menstruation (blood loss more than certain amounts) may cause blood deficiency and iron loss. If the blood and iron loss can not

be replaced, it may cause lower red blood cell resulting in anaemia that can disturb the function of reproductive function in fertilization.

5. Myelin
Myelin is essential for the proper functioning of the nervous system. Since iron help in myelin formation and maintenance, deficiency of iron causes disrupting signals between the brain and other parts of the body, leading to double vision, memory loss, difficulty in controlling bowel movements or urination, fatigue, etc, thereby lessening the reproductive system to maintain it's normal function, resulting in low quality sperm count and infertility.

II. Risks and side effects
1. Prolong period with high levels of iron may damage the liver
2. If Overdose, it
a) Is toxic to the body
b) May weaken heart beat
c) Causes buildup of fluids in the lungs
d) Causes Gastrointestinal system disorder
e) causes Heart and Blood problems
f) Nervous disorder
g) Skin problems

E. Magnesium

I. How magnesium effects fertility
1. Healthy heart
Magnesium is necessary for a healthy heart. Besides helping to regulate the heartbeat or heart rhythm symptoms including palpitations, it also prevents the formation of blood clots in the blood vessels of the heart and stabilizes the blood pressure level, leading to a health heart in regulating the blood flow to the body, including the reproductive organs.

2. Diabetes
Since magnesium plays an important role in carbohydrate metabolism, it helps to regulate the production of insulin by pancreas, leading to normal levels of blood sugar in the bloodstream, resulting in decreasing the risk of infertility symptoms caused by fluctuation of blood glucose.

3. Working with calcium
While magnesium helps to relax muscle, calcium woks in the opposite direction by tightening them. Since they work together to control the movement of our body's muscles, imbalance of magnesium and calcium causes muscle tension, leading to muscle spam, muscle fatigue and muscle soreness including the reproductive muscle, thereby decreasing the chance of fertility.

4. Hypertension
Magnesium not only helps to stimulate production of vasodilator prostacyclins and nitric oxide but also alters vascular responses to vasoactive agonists that helps to modulate vascular tone and reactivity. Deficiency of magnesium may cause irregular vascular function in controlling the heart muscle in relaxing and tightening, leading to hypertension.

5. Menstrual cycle
Magnesium is considered as main constituents of nerve fibres. Deficiency causes muscle spam in the abdominal region, leading to menstrual cramp and interferes with the proper function of the nervous system in receiving massage from other nervous cells, leading to nervous tension and over production of certain hormones, resulting in highly active, sleeplessness and fatigue and distorting the normal process of the reproductive organs in production of sperm and egg.

6. Potassium
As we mentioned in previous article, magnesium plays an important role in regulating the levels of of potassium which is vital for the lymphatic function in controlling the body fluid. Deficiency of magnesium causes abnormal levels of potassium, leading to water retention that increases the risk of PMS and reduces the chance of conception in women.

II. Side effects and risks
1. Over dose of magnesium may causes diarrhoea
2. Deficiency of magnesium with high levels of calcium may increase the risk of kidney stone

F. Manganese

I. How manganese effects fertility
1. Energy
Manganese plays an important role in carbohydrate metabolism, thereby increasing the transformation of glucose to energy for our body to use for daily activity. Deficiency causes nervous system including fatigue, tiredness and loss of concentration and dizziness.

2. Synthesis of fatty acids
It is also vital to helps our body in synthesis of essential fatty acids. Deficiency of manganese increases the risk of over production of certain hormone of the prostaglandins family, leading to over active uterus, thus decreasing the chance of fertility.

3. Superoxide dismutase
Acting as an antioxidant. it helps to improve the immune system in fighting

against cell oxidation, thereby decreasing the risk of irregular cell growth in the reproductive organs that interfere with the natural process of fertilization.

4. Mineral amino acids chelate
Manganeses also have a function in maintaining the levels of minerals in the body, thereby decreasing the risk of mineral deficiency such as magnesium, iron and calcium, resulting in decreasing the risk of infertility caused by deficiency of iron or other trace metals.

5. Enhancing bio-assimilation
It helps to enhance the bio assimilation in absorbing vital minerals and vitamins or other chemicals from food within the gastrointestinal tract by breaking down chemicals and alternating the chemicals in the bloodstream by the liver or cellular secretions, thus increasing the nutrients to the body, thus enhancing fertility.

II. Risks and side effects
1. It is said that imbalance levels of manganese may cause sperm quality and quantity.
2. Over exposure to industrial manganese increases the risk of Parkinson-like problems such as tremors and impaired movement and damaged nervous cells.
3. Overdose of manganese also increase the risk of
a) Migraine-headaches
b) PMS
c) Dizziness and depression
d) Mental illness
e) Liver disease
f) Etc.

G. Selenium

I. How selenium effects fertility
1. Antioxidant
It is one of antioxidants that helps to strengthen the immune system system, thus guarding our body against the bacteria and virus invasion and preventing the immune system abnormal function in recognizing sperm as foreigner and in producing antibody antigen to attack them.

2. Miscarriage and birth defects
Selenium is proven to prevent chromosome breakage that causes miscarriages.

3. Reproductive enhancer in men
Good levels of selenium are also essential to maximize sperm formation. A study conducted at the University of Padua in Italy shows that selenium

helps to prevent oxidation of sperm cell , thus increasing the sperm quality and quantity.

4. working synergistic with vitamin E
Study shows that selenium works together with vitamins E not only can prevent the forming of free radicals but also increase it' s effectiveness in preventing and inhibiting the development of breast cancer.

5. Hypothyroidism
Selenium is essential for maintaining the thyroid glands in secreting thyroid hormone. Deficiency of selenium causes hypothyroidism, leading to abnormal weight gain that increases the risk of insulin fluctuation, leading to poor egg and sperm quality.

6. Intra cranial pressure symptoms
Intra cranial pressure is the pressure in the cranium, selenium helps to maintain the right levels of pressure exerts on the brain's intra cranial blood circulation vessels, thereby decreasing the intra-cranial pressure symptoms such as headaches, nausea, speech disorders, Jacksonian seizures, etc. thus reducing the risk of the nervous system causes of infertility.

II. Side effects and risks
1. It is toxic, if overdose
2. If over dose. it causes
a) Gastrointestinal disorders
b) Hair loss, sloughing of nails, f
c) nervous tension such as fatigue and irritability
d) Neurological damage.

Chapter XII- How to Treat Infertility With Other Supplements and Over Counter Medicine

I. Other Supplements
Other supplements such as larginine, GLA and L-carnitine can help to improve the chance of fertility
1. Larginine
L-arginine is an amino acid that has numerous functions in the body. Besides helping to covert glucose and glycogen, it also relaxes blood vessels by making nitric oxide, thereby increasing the blood flow to the reproductive organs of which decreasing the risk of sexual dysfunction in men and enhancing the function of reproductive organs in women.

2. Gamma-linolenic acid (GLA)

It is found in plant-based oils, gamma-linolenic acid (GLA) is an essential fatty acid (EFA) in the omega-6 family. It besides has been used to treat premenstrual syndrome caused by fatty imbalance, leading to over active of uterine muscles and menopause, it also is vital in protecting the natural process of the reproductive function, caused by medical ailments.

3. L-carnitine
L- carnitine can be found in skeletal muscles, heart, brain, and sperm and is produced by the kidney and liver. It primarily function is to convert fat to energy. Since kidney is vital in maintaining the normal function of reproductive organs in the process of conception, strong kidney helps to maintain the production of right levels of L-carnitine, leading to decreasing the risks of sexual dysfunction and improving sperm quality and motility.

II. Over Counter Medicine
1. Baby aspirin
Made from white willow tree originally, it helps to improve blood flow and increase immune function in fighting against inflammation, resulting in lessening the risk of blood clotting defect that causes recurrent miscarriage. It is said that baby aspirin also decreases the risk of immune dysfunction by inhibiting antinuclear antigen and anti cardiolopin antibodies.

2. Guaifenesin
Guaifenesin is another counter medicine which helps to improve the quality of cervical mucus, thereby increasing the chance of sperm to get into Fallopian tube for normal conception.

A. L-arginine

I. Definition
L-arginine is one of the 20 most common natural amino acids and has been used as nutritionally essential for infants.

II. How L-arginine helps to treat infertility
1. Nitric oxide and blood flow
By making nitric oxide, L-arginine helps blood vessel to relax, thereby increasing the blood flow to the the reproductive organs of which decreasing the risk of sexual dysfunction in men and enhancing the function of reproductive organs in women.

2. Insulin sensitivity
Insulin sensitive is defined as a condition that insulin becomes ineffective or less effective, resulting in insulin no longer helps cells in the liver, muscle, and fat tissue to take up glucose from the blood and store it as glycogen in the liver and muscle. L aginine helps the body's cells in improving the insulin sensitive, thereby reducing the risk of insulin resistance and

increasing the chance of normal menstrual cycle for conception.

3. Growth hormone
It also helps in improving and regulating the production of growth hormone, resulting in decreasing the risk of hormone imbalance such as estrogen and testosterone, leading to increasing sexual desire and quality of sperm.

4. Reproductive enhancer
A study in Italy suggests that L-arginine helps to improve sperm production and sperm quality in subfertile male as resulting in increasing immune function, blood flow to the reproductive organs and stimulating testosterone hormone production.

5. Weight Loss
Since it helps to improve insulin sensitive, it may help reduce body fat and speed up weight loss.

6. Immune function
L arginine besides helps to improve immune function in fighting against the infection and inflammation caused by foreign bacteria and virus, it also increases the output of T- cells from the thymus gland, thereby decreasing the risk of cell oxidation in the reproductive system, thus increasing the chance of fertility

III. Side effects and risks
1. It may alter potassium levels, therefore people with liver disease should consult with their doctor before applying
2. It may increase stomach acid, leading to digestive disorder

B. Gamma-linolenic acid (GLA)

I. Definition
Gamma-linolenic acid or GLA is also known as gamoleic acid, it is a fatty acid found in vegetable oils and has been used as supplement in treating inflammation and auto-immune diseases.

II. How gamma-linolenic acid (GLA) helps to improve fertility.
1. Autoimmunity
Beside helping to improve liver function in fat and protein metabolism, it also strengthens the immune system in preventing certain classes of protein binding to the sperm and allowing other immune cells to attack them in men. In women, it improves the production of friendly cervix mucus for sperm invasion.

2. Inflammation
GLA also decreases the risk of inflammation by converting rapidly dihomo

GLA (DGLA) when it is released, by competing with arachidonic acid for the enzymes COX and LOX, resulting in lessening the risk of inflammation.

3. Uterine tonic
It is helps to balance the levels of prostaglandins hormones, resulting in decreasing the risk of over active uterine muscles that causes abnormal pain and cramps and distorts the normal process of menstrual cycle.

4. Nervous symptoms
Since it helps to increases the liver in fat and protein metabolism and blood flow to the nervous system, it improves the transmitting information functions between cells thereby, decreasing the risk of stress, headache and migraine, etc.

5. Cell growth
GLA is a nutrient used by the body to maintain healthy cells and vital body functions, thereby decreasing the risk of abnormal cell growth in the body, including the cells in the reproductive organ.

III. Risks and side effects
1. Possible side effects include
a) Upset and bloated stomach
b) Soft stool
c) Nausea and vomiting
d) Belching
2. People who take blood thinner should consult with their doctor before taking GLA

C. L-carnitine

I. Definition
L-Carnitine is also known as vitamin BT, it is vital for our body in energy production and for fat metabolism. Since our body can only produce a small amount of L-carnitine, we may require to increase the levels of L-carnitine by taking some L-carnitine rick food to prevent any effects if deficiency is found.

II. how L- carnitine helps to treat infertility.
1. Antioxidant
L-carnitine is an antioxidant, besides helping to improve immune function in guarding our body against any infection and inflammation, it also helps to decrease the cells oxidation, resulting in lessening the risk of irregular cell growth in the reproductive region that impairs fertility.

2. Sperm enhancer
It is said that L carnitine plays a vital role in sperm energy metabolism,

because its conversion to acetyl-L-carnitine in the mature sperm helps the continuation of energy production within the sperm, thereby increasing the mature sperm quality and count.

3. Blood sugar
It also helps to increase the speed of glucose disposal, thereby decreasing the blood sugar building up in the blood stream, causing blood thickening and decreasing the blood flow to the reproductive organs that cause low sperm count effecting fertility.

4. Weight loss
Since it reduces the pancreas function in secreting insulin by increasing glucose disposal, it helps to reduce the fluctuation of levels of insulin in the blood stream, leading to reducing the risk of sugar craving, thus helping to lose weight.

5. Nervous system
It also plays an essential roles in preventing the brain cell being oxidated by stopping the ovidative scavengers to travel through the blood-brain barrier, where it helps form the brain chemical acetylcholine and keeps mitochondria to to perform its work efficiently by clearing them of toxic fatty-acid metabolites, thereby reducing the risk of oxidative cells in transmuting abnormal information between themselves and glands, leading to hormone imbalance that disrupts the normal process of fertility.

III. Risks and side effects
1. Over dose may cause over active brain cells, leading to insomnia and restlessness.
2. Over dose also causes vomiting, nausea, headache, diarrhea and stuffy nose.

D. Baby Aspirin

I. Definition
Baby aspirin is defined as small dose of aspirin about 80-100 mg for small children. It is often used to reduce coagulation of blood in patients with high risk of heart attack.

II. how over counter medicine--baby aspirin effects fertility
1. Blood thinner
As it helps to make the blood thinner, it increases the blood flow to the body, including the uterus, thereby decreasing the risk of coagulation of blood, causing blood stagnation in the reproductive organ and reducing the chance of fertility.

2. Antiphospholipid Antibodies
Antiphospholipid Antibodies interferes with normal process of fertility, it can cause the blood to become much thicker than usual and blood platelets to stick together, leading to miscarriage or multiple miscarriages as resulting of blood clots around the placenta.

3. Ovulation
Researcher found that baby aspirin helps to stimulate the ovulation and increase the activity of the ovaries in production of multiple eggs, that are vital for artificial insemination.

4. Uterine lining
Since it helps to increase blood flow to the uterine limning, it makes the uterine lining thicker and healthier for egg implantation.

5. Nervous system
Besides helping to prevent heart diseases and stroke by making the blood thinner, it also helps to improve the circulatory function in transporting the oxygen and vital nutrients to the nervous cells, resulting in increasing the function of cells in transmitting information and reducing the risk of nervous disorder, such as fatigue and tiredness.

III. Risks and side effects
You should avoid to take aspirin, if you have
a) Stomach ulcers,
b) A history of gastrointestinal bleeding,
c) Blood-clotting,
d) Uncontrolled high blood pressure
Please consult with your doctor, if you take any blood thinner medicine.

E. Guaifenesin

I. Definition
Guaifenesin also known as glyceryl guaiacolate, is one the ingredient found from the over counter medicine syrups and has been used to assist the bringing up of phlegm from the airways in acute respiratory tract infections.

II. How over counter guaifenesin helps to treat infertility
1. Cervical mucus
Some studies show that guaifenesin can improve the rate of pregnancy, because it promotes the secretion of friendly cervical mucus, thus enhancing sperm invasion for egg fertilization. There was a report that some women in their 40 were able to conceive after 6 months of continuing of taking the medicine. In fact, most of the trials have proven that guaifenesin increases

the chance of fertility.

2. Analgesic use
Besides helping to normalizing the menstrual cycle by reducing pain during menstruation, guaifenesin also helps to improve nervous tension caused by inflammation, resulting in lessening the risks of nervous disorder, including over active uterine muscles and depression.

3. Anticoagulants
It is said that guaifenesin also decreases the coagulant effects in the arteries that help the blood to get thinner, thereby increasing the blood flow to the reproductive organ, leasing to enhancing the chance of fertility.

III. Risks and side effects
Over dose of guaifenesin may cause
1. Nausea,
2. Vomiting
3. Formation of kidney stones of uric acid

F. Essential Fatty Acid

I. Definition
Essential fatty acids is also known as vitamin F, our body can not make EFAs, therefore we require to take them from foods. It contains 2 families EFA :Omega 3 and Omega 6
While one member of a family can convert to other members in the family, it can not convert to other family.

II. How essential fatty acid effects fertility
1. Blood flow
Prostaglandins E1 and E3 are derived from Omega 3 and 6 fatty acids. While PGE1 helps to improve blood blood flow to the reproductive organ, PGE3 helps to protect our body against cells oxidation caused by inflammation,including the reproductive region, thereby increasing the chance of fertility.

2. Cold water fish
Cold water fish contains high amount of essential fatty acids, but it may have a colding effect that causes yang deficiency according to transitional Chinese medicine if you like Japanese shusi. It is advised that you should take some "warm" and 'hot" foods to neutralizing it. Otherwise, it may decrease the chance of fertility as resulting of yin and yang imbalance.

3. Liver
Essential fatty acid not only kelps to improve the balance of prostaglandins hormone, but also helps the liver in fat and protein metabolism, thereby

increasing the nervous cell in transmitting information between themselves and glands, thus decreasing the risk of nervous tension and symptoms that effect fertility.

4. Maximizing the effects of essential fatty acids
Study found that without enough levels of zinc, vitamin B6 and magnesium, our digestive system may not be able to absorb all EFAs , leading to EFAs deficiency, causing over production of certain hormone during menstrual cycle, resulting in distorting the normal reproductive process for fertilization.

5. Impotence
It also helps to increases the blood flow to male reproductive, leading to decreasing the risks of sexual dysfunction and promoting sperm count and quality that improve the chance for the female partner to conceive.

6. Healthy prostate
As resulting of anti inflammation properties of EFAs, it helps to decrease the risks of enlarged prostate gland or restore the normal function of prostate gland in production of reproductive semen fluid that nourishes and transports the male gamete (sperm) through the female reproductive tract.

Chapter XIII- Fertility Diet

We will finish the E-book with a brief look of the fertility diet and hope to come back with another E book - fertility diet with more indepth discussion

A. Fruit and Vegetables

I. Definition
While fruit is defined as any fleshy material covering a seed or seeds and vegetable is defined as a herbaceous (green and leaf like in appearance or texture) plant cultivated for an edible part, as roots, stems, leaves or flowers, but in in daily language, the words "fruit" and "vegetable" are interchangeable.

II. How fruit and vegetables effects fertility
1. Load of vitamins and minerals
As we mentioned in some other articles, fruit and vegetable contain high amount of vitamins and minerals that is vital for over all health, including the reproductive organs. People eat less of above may cause nutrients deficiency, distorting the normal process of conception.

2. Low GI index
Most fruit and vegetable are low GI foods that helps to release glucose slowly into the blood stream, thereby decreasing the risks of blood sugars

fluctuation, causing low sperm quality in men and distorting the menstrual cycle process in women.

3. Anti inflammation
Some food such as garlic, ginger and pepper contains high amount of antioxidants, that not only help to improve immune function in fighting against forming of irregular cells growth, but also prevent the inflammation of the pelvic region.

4. Blood flow
Garlic, ginger, onion, etc also help to improve the blood flow to the reproductive organs. By making the blood thinner, they increase the blood in transportation of nutrients and oxygen for our body cell need, including the reproductive organ, leading to decreasngthe risk of low quality sperm in men and poor quality eggs in women.

5. Nervous symptoms
Some fruit and vegetable help to increase the body in fat and protein metabolism, thereby increasing the nervous cells in transmitting information between themselves and glands, thus decreasing the risk of nervous symptoms such as fatigue, stress, depression, anxiety, etc.

There are many other benefits of fruit and vegetable that we can not mention them all, but if you believe in transitional Chinese medicine, then you must choose your foods carefully without distorting the yin and yang qi in your body.

B. Seeds and Nuts

I. Definition
Nut are both the seed and the fruit and is a general term for the large, dry, oily seeds or fruit of some plants. But in fact, under viewpoint of biologists only a certain number of them are considered by biologists to be true nut.

II. How seeds and nuts effect fertility
1. Low GI index
Nuts and seeds are ranged very low in GI index. They release the glucose very slowly into the blood stream, thereby increasing the pancreas function in regulating the production of insulin, resulting in increasing the conversion of carbohydrate into energy that are vital for our daily activity needs.

2. High amount of essential fatty acids
They also contain high amount of essential Omega 3 and 6 fatty acids that help to improve our body in fat and protein metabolism, thereby increasing the levels of E1 and E3 EFAs resulting in lessening the risk of hormone imbalance and quality of sperm in men and egg in women.

3. Vitamins and minerals
Vitamins and minerals not only help to maintain normal function of our body's daily activity, but also increase the body function in normalizing the production of certain hormones. Deficiency of them increase the risk of hormone imbalance, leading to infertility.

4. Antioxidants
Beside preventing the forming of free article, damaging our body's cells nut and seed are powerful antioxidant that increase the immune awareness inprotecting the body tissues, thereby, decreasing the risk of abnormal function of immune system in attacking sperm or viewing sperm as foreign invasion.

5. Blood flow
Nuts and seeds also increase the heart function in pumping blood to nourish our body organs as resulting of reducing the levels of bad cholesterols in the blood vessels, thereby enhancing the chance good quality egg in women and sperm in men.

6. Nervous system
They also help to improve the nervous system in regulating the secretion of hormones of the body glands, thus decreasing the risk of hormone imbalance that effects the natural process of conception.

7. Digestive system
Since they contain high amount of fiber, they help to move the stool in the large intestine by attaching to other waste, thereby cleaning the large intestine and decreasing the risk of colon cancer and constipation.

C. Carbohydrate

I. Definition
Carbohydrate is one of major nutrients, besides fat and protein, It is vital to maintain normal function in our body by continuing to supply energy (calories) for our body daily activities.

II. How carbohydrate effects fertility
1. Energy
Carbohydrate is main sources of energy that requires to nourish and maintain normal function of our body daily activity as resulting of our body carbohydrate synthesis. Deficiency of carbohydrate intake increases the risk of nervous tension, leading to fatigue, tiredness, depression and stress.

2. Nervous system
Our nervous system is required carbohydrate in maintaining its function in

transmitting information and regulating the hormones secretion of glands, because the brain and neurons generally cannot burn fat and need glucose for energy. Deficiency of carbohydrate increases the risk of hormone imbalance leading to distorting the normal process of conception.

3. Taking only low GI carbohydrate food
High GI food release glucose into blood steam quickly, causing fluctuation of insulin production of pancreas, leading to high blood sugar in the body that effects quality of egg in women and lowering sperm count in men.

4. Hormone imbalance
High levels of insulin caused by inability of pancreas in regulating the levels of sugar after intake of carbohydrate increase the levels of androgen produced by the ovaries, causing hormone imbalance and increasing the risk of abnormal ovulation infertility.

5. Blood flow
Long term intake of simple carbohydrate may effect the pancreas in secreting insulin, leading to insulin resistance and causing high levels of bad cholesterol and triglyceride in the blood stream, as the blood get thicker, resulting in diabetes and heart diseases, thus effecting the blood flow to the pelvic region and increasing the risk of sexual dysfunction and low quality sperm in men and obstructing the normal ovulation in women.

By selecting the food with low GI index complex carbohydrate, it not only helps to maintain the right levels of glucose in the bloodstream, but also increases the blood flow and energy in our body that are vital for a natural process of a couple to conceive.

D. Legumes

I. Definition
Legume is a plant or a fruit, belongs to the family Fabaceae (or Leguminosae), it has been cultivated in Asia, America and Europe for over thousand of year for foods.

II. How legumes effects fertility.
1. Antioxidants
Most legumes contain high level of antioxidant that not only helps to increase the immune function in protecting our body against bacteria and virus invasion, but also decrease the abnormal allergic reaction of immune system in viewing sperm as a foreigner and attacking them.

2, Lignans
Legume contain high level of lignan which is one form of weak estrogen that can help to occupy the estrogen receptor sites in the women body,

leading to low levels of bad estrogen, resulting in increasing the hormone balancing and enhancing fertility.

3. Complex carbohydrate
It also has a low GI index number, thereby helping to maintain the normal blood sugar in the blood stream thus decreasing the symptoms of high blood sugar in clotting the arteries and small vein in the pelvic region, leading to sexual dysfunction and abnormal ovulation.

4. Vitamins and nutrients
Legume contains most needed vitamins and minerals that are essential in helping our body in maintaining the secretion of hormones. Deficiency may cause over production of certain hormones, effecting the nervous system in regulating the normal function of glands.

5. Alkaline
Today we eat more acid forming foods such as sugars, saturated fats, and white breads. At the same time our consumption of fresh vegetables and essential fatty acids have decreased dramatically, making this generation life expectancy lower to the last generation in the first time in American history. Most legumes are considered alkaline, they not only help to neutralize the levels of acid in the body, but also prevent symptoms and diseases caused by over consumption of above.

E. Pure Water

I. Definition
Pure water is defined as water which has all impurities removed such as harmful bacteria, metals, etc. Distilled water and deionized water have been the most common forms of pure water.

II. How pure water effects fertility
Since our body is made up with over 70% of water, maintaining our body fluid is depended on how much water intake in order for our body to function properly.

1. Hormone secretion
Pure water contains no harmful substances and bacteria, it not only helps to prevent diseases but also cleanses our liver and kidney in hormone secretion. Deficiency causes toxins accumulation in the body leading to hormone imbalance, effecting fertility.

2. Blood flow
Deficiency of water in the body causes the blood becoming thicker, leading to lower blood flow to the pelvis region as well as decreasing transportation

of oxygen to our body cells, leading to nervous tension and sexual dysfunction in men and obstructing natural process of ovulation.

3. Dryness
Low water in the body is considered as " dryness " sickness in traditional Chinese medicine obstructing energy flow to the pelvic region, effecting fertility.

4. Yin and Yang
We like to drink cold water rather than normal room temperature water. According to transitional Chinese medicine, cold water has a colding effect in our body ecosystem, it not only depletes the yang qi in the body, but also obstruction the energy flow in the body, leading to qi stagnation in the pelvic region, thus decreasing the chance of fertility.

5. Kidney and liver
1. Kidney is vital in maintaining it's function in regulating the secretion of growth hormones and a healthy kidney jing. Deficiency of water causes fluid deficiency in the test, leading to low sperm count and quality.
2. Liver is essential to maintain blood flow and regulate spleen in insulin production. Deficiency of water causes blood stagnation in the pelvic region and obstructs the liver in protein and fat metabolism, leading to nervous tension and infertility.
The End Of The Fastest Way To Get Pregnant Naturally E Book By Kyle J. Norton

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Author Biography
"Let You Be With Your Health, Let Your Health Be With You" Kyle J. Norton.
I have been studying natural remedies for disease prevention for over 20 years and working as a financial consultant since 1990. Master degree in Mathematics and BA in world literature, teaching and tutoring math at colleges and universities before joining insurance industries. Part time Health, Insurance and Entertainment Article Writer.