

## INFERTILITY

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**Infertility means "childlessness"**

Whenever a couple tries to conceive with the desire to have a child from 1 year or more but cannot succeed, such a condition is called childlessness.

Up to 15 percent of couples are infertile. This means they aren't able to conceive a child, The reason for infertility can be both- male and female.

There is also a condition in which both men and women are completely normal but still unable to bear a child, such a condition is called Unexplained Infertility. First we talk about male infertility.

Due to lack of which reasons in men, infertility can occur.

1. Low Sperm Count means reduced sperm count. Here needs to be enough sperm in the semen. If the number of sperm in your semen (sperm count) is low, it decreases the odds that one of your sperm will fertilize your partner's egg. A low sperm count is less than 15 million sperm per milliliter of semen or fewer than 39 million per ejaculate. Oligospermia is a condition in which sperm count decreases below normal and Azoospermia is a condition in which the number of sperm is zero. Both these stages are the main cause of infertility.
2. Low sperm motility - means reduced sperm motility. Sperm must be functional and able to move. If the movement (motility) or function of your sperm is abnormal, the sperm may not be able to reach or penetrate your partner's egg. In this stage the sperm of the male is unable to reach the egg in the woman's uterus. This is also a main reason which can lead to infertility.
3. Irregular shape of Sperm- Sperm morphology affects fertility because sperm have to be a certain shape to be able to penetrate an egg. But morphology is only one of many factors when it comes to fertility.
4. Blockages that prevent the delivery of sperm. Blockage can occur at any level, including within the testicle, in the tubes that drain the testicle, in the epididymis, in the vas deferens, near the ejaculatory ducts or in the urethra.
5. Varicocele- A varicocele is a swelling of the veins that drain the testicle. It's the most common reversible cause of male infertility. Although the exact reason that varicoceles cause infertility is unknown, it may be related to abnormal testicular temperature regulation. Varicoceles result in reduced quality of the sperm.
6. Infection- Some infections can interfere with sperm production or sperm health or can cause scarring that blocks the passage of sperm. These include inflammation of the epididymis (epididymitis) or testicles (orchitis) and some sexually transmitted infections, including gonorrhea or HIV. Although some infections can result in permanent testicular damage, most often sperm can still be retrieved.
7. Ejaculation issues- Retrograde ejaculation occurs when semen enters the bladder during orgasm instead of emerging out the tip of the penis. Various health conditions can cause retrograde ejaculation, including diabetes, spinal injuries, medications, and surgery of the bladder, prostate and urethra.
8. Some men with spinal cord injuries or certain diseases can't ejaculate semen, even though they still produce sperm. Often in these cases sperm can still be retrieved for use in assisted reproductive techniques.
9. Antibodies that attack sperm. Anti-sperm antibodies are immune system cells that mistakenly identify sperm as harmful invaders and attempt to eliminate them.
10. Tumors- Cancers and nonmalignant tumors can affect the male reproductive organs directly, through the glands that release hormones related to reproduction, such as the pituitary gland, or through unknown causes.
11. Surgery, radiation or chemotherapy to treat tumors can affect male fertility.
12. In some males, during fetal development one or both testicles fail to descend from the abdomen into the

sac that normally contains the testicles (scrotum). Decreased fertility is more likely in men who have had this condition.

13. Chromosome defects. Inherited disorders such as #Klinefelter's syndrome — in which a male is born with two X chromosomes and one Y chromosome (instead of one X and one Y) — cause abnormal development of the male reproductive organs.
14. Problems with sexual intercourse. These can include trouble keeping or maintaining an erection sufficient for sex (erectile dysfunction), premature ejaculation, painful intercourse, anatomical abnormalities such as having a urethral opening beneath the penis (#hypospadias), or psychological or relationship problems that interfere with sex.
15. Certain medications, long-term anabolic steroid use, cancer medications (chemotherapy), certain antifungal medications, some ulcer drugs and certain other medications can impair sperm production and decrease male fertility.
16. Environmental causes-Overexposure to certain environmental elements such as heat, toxins and chemicals can reduce sperm production or sperm function.
17. Sitting for long periods, wearing tight clothing or working on a laptop computer for long stretches of time also may increase the temperature in your scrotum and may slightly reduce sperm production.
18. Health, lifestyle and other causes of male infertility includes
  - A. Drug use- Anabolic steroids taken to stimulate muscle strength and growth can cause the testicles to shrink and sperm production to decrease. Use of cocaine may temporarily reduce the number and quality of your sperm as well.
  - B. Alcohol use-Drinking alcohol can lower testosterone levels, cause erectile dysfunction and decrease sperm production.
  - C. Tobacco smoking- Men who smoke may have a lower sperm count and motility than do those who don't smoke.
  - D. Stress & Anxiety- Stress & Anxiety can interfere with certain hormones needed to produce sperm. Severe or prolonged emotional stress, including problems with fertility, can affect your sperm count.
  - E. Depression- Depression in men may cause sexual dysfunction due to reduced libido, erectile dysfunction, or delayed or inhibited ejaculation.
  - F. Over Weight. Obesity can impair fertility in several ways, including directly impacting sperm themselves as well as by causing hormone changes that reduce male fertility.
  - G. Certain occupations including welding or those involving prolonged sitting, such as truck driving, may be associated with a risk of infertility.

#### Ayurvedic View

In Shastras, there is a shloak, which explains the concept of dhatus and formation and role of shukra in conception. It explains that the Shukra Tissue Created As Part Of A

Long Chain Of Metabolic Transformations, Starting With The Digestion Of Food And Including The Transformation Of Food To Nutrient Fluid, Blood, Muscle, Fat, Bone, Bone Marrow And Finally, To Shukra Tissue and Shukra Tissue becomes the seed for conception.

As per Ayurveda, conception takes place due to healthy sperm, healthy ovum, and a healthy uterus. For both men and women, reproductive health depends on the health of the shukra dhatu, or reproductive tissue. Artava is the equivalent term used to mean ovum. However, artava also refers to the menstrual blood, a product of rasa dhatu. Thus, shukra is the best term to describe the factor that nourishes. In women the shukra tissue creates the ovum as part of the monthly cycle, and in men the semen is formed due to sexual stimulation.

Shukra means bright, pure and radiant. It can also mean the "essence" of something. Ayurveda explains body is composed of seven Dhatus, of which Shukra is the end of the line in the dhatu transformation cycle. There is, however, an aspect of shukra dhatu that undergoes a different type of transformation called sublimation. From the sublimation of shukra, ojas is formed and ojas then becomes a part of every dhatu providing it with strength and stability. The journey from rasa to ojas is a cycle that takes six days according to vaidya Charaka and one month according to vaidya Sushruta.

During the process of digestion each dhatu nourishes with nutrition to carry our physiological tasks in the body; and all the seven tissues of the body contain their own Agni to metabolize the nutrients supplied to them through the channels of circulation.

#Rejuvenation and #Aphrodisiac treatment plays an important role-Rejuvenation therapy revitalizes the body and reinforces it internally and externally thus enhances body endurance and also assists in creating healthier sperms. Medicines like Chyawanprash, Musali paak,kauch paak, Rasayan vati,chandraprabha vati etc serves the purpose.

#### Aphrodisiac Treatment

Sperm generating medicines like Shatavari, Nagbala, Bala, Musali, Ashwagandha, Milk, Ghee, Haritaki, Amla, Yastimadhu, Pippali, Shatavari kalpa plays an essential role in improving count of efficient sperms.

Medicine which helps in ejaculation of seminal fluid like Kapikacchu, Gokshur, Ashwagandha,Shatavari, Bruhati phala,Vidari medicinal preparations like Vrushya vati, Shilajatu, Vanari kalpa cures problems related to Semen ejaculation.

Musali,Gokshur, Ashwagandha, , Kapikacchu, Pippali, Milk, Ghee, Fruits and fruit juices; and the most important aspect – pleasant relaxed state of mind is the key ingredient to treat infertility.

There are still many medicines depending upon an individual body constitution, all the above recommended medicines should be taken under consultation of Ayurvedic physicians.

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