

## What are the Reasons for Infertility in India?

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**It is important that women understand their ovarian reserve before they take the decision of delaying pregnancy. This only helps them take a better decision and avoid unnecessary stress when they plan to conceive.**



Over 30 million Indians, both men and women, suffer from infertility. Yet, there is not much open discussion about the growing concern and a general lack of awareness surrounding the condition.

Infertility refers to an inability to conceive, despite regular unprotected sexual intercourse. While 40-50 per cent of the recorded cases of infertility are solely as a result of female bodily conditions, around 20 per cent include abnormal sperm conditions and the rest are classified as unidentified factors.

There are multiple risk factors that affect fertility of an individual and age is one of the most prominent. While a woman's fertility starts to drop and continues doing so after the age of 32, a man's fertility starts to decline after the age of 50.

Smoking is also a prime factor that influences the level of fertility. There is significant research to show that pregnant women who smoke during their term are at a greater risk of miscarriage. Similarly, alcohol too has an adverse effect on the mother and child; it is also linked to lower fertility of men.

Obesity, coupled with a sedentary lifestyle, has also been linked to infertility in females and is also cause of an abnormal sperm count in males. Additionally, research has found that being underweight or anorexic can also have an adverse impact on fertility.

Besides understanding the broad causes of infertility, there are several differentiating factors between male and female infertility. Among men, some of the most common reasons are:

- **Varicocele:** A varicocele is a swelling of the veins that drain the testicle, and is the most common reversible cause of male infertility.

- Infection: Infections like inflammation or Sexually Transmitted Diseases (STD) can interfere with sperm production or sperm health or can cause scarring that blocks the passage of sperm.
- Ejaculation issues: Retrograde ejaculation occurs when semen enters the bladder during the orgasm instead of emerging out of the penis.
- Antibodies: Anti-sperm antibodies are immune system cells that mistakenly identify sperm as harmful invaders and attempt to eliminate them.
- Tumours: Cancers and non-malignant tumours can affect the male reproductive organs directly, through glands that release hormones related to reproduction, such as the pituitary gland, or through unknown causes. In some cases, surgery, radiation or chemotherapy to treat tumours, can also affect male fertility.
- Hormone imbalances: Infertility can also result from an abnormality affecting other hormonal systems including the hypothalamus, pituitary, thyroid and adrenal glands.  
Low testosterone and other hormonal problems have a number of possible underlying causes.
- Sexual problems: Problems like maintaining an erection, premature ejaculation, painful intercourse, anatomical abnormalities, psychologically related, or relationship problems that interfere with sex can lead to infertility.
- Medication: Testosterone replacement therapy, long-term anabolic steroid use, cancer medications, certain antifungal medications, some ulcer drugs among other medications can impair sperm production and decrease male fertility.

Among women, some of the most common factors for infertility are:

- Polycystic ovary syndrome (PCOS): PCOS causes a hormone imbalance, which affects ovulation, and is the most common cause of female infertility.
- Hypothalamic dysfunction: These two hormones produced by the pituitary gland are responsible for stimulating ovulation each month. Disruption in the production of these hormones can affect ovulation and cause infertility.
- Premature ovarian failure: This disorder is usually caused by an autoimmune response or by premature loss of eggs from the ovary. The ovary does not produce eggs, lowers oestrogen production in women under the age of 40 and is a cause of infertility.
- Excessive prolactin: The pituitary gland may cause excess production of prolactin, which reduces oestrogen production and may cause infertility.
- Damage to fallopian tubes (tubal infertility): Damaged or blocked fallopian tubes keep sperm from getting to the egg or block the passage of the fertilised egg into the uterus and may be a cause for infertility.
- Endometriosis: Endometriosis affects the lining of the uterus and disrupts implantation of the fertilised egg. The condition also affects fertility in less-direct ways, such as damage to the sperm or egg.
- Uterine or cervical causes: Benign polyps or tumours that are common in the uterus can block fallopian tubes or interfere with implantation, affecting fertility.  
Uterine abnormalities present from birth can cause also cause problems becoming or remaining pregnant. Cervical stenosis, which is a narrowing of the cervix, can be caused by an inherited malformation or damage to the cervix is also a cause for infertility.

Today, more and more Indian women in the Metro Cities are delaying their pregnancy owing to their career and competitive jobs. While not all women may suffer from fertility problems with growing age, recent trend and analysis have a different story to tell. Today women are at a risk of infertility owing to their lifestyle choices.

It is important that women understand their ovarian reserve before they take the decision of delaying pregnancy. This only helps them take a better decision and avoid unnecessary stress when they plan to conceive. Ovarian reserve is the pool of eggs present in the ovaries at any given time. Low ovarian reserve is when there is a physiological decrease in the number of eggs, resulting in an insufficient number to ensure a reasonable chance of pregnancy.

The Anti Mullerian Hormone Test or more popularly known as the Ovarian Reserve Test gives a fair indication of a women's fertility. Having said that, the AMH test is a multi-purpose test and increased level may also suggest conditions like Polycystic Ovarian Syndrome. However the AMH test is an important test related to infertility.

Couples who wish to conceive and are unable to should visit a fertility specialist and even a counselor if advised, It is important to understand the present status through proper diagnosis and take further treatment as per the doctor's advice.

**- Dr. Nilesh Shah, President and Chief of Science & Innovation, Metropolis Healthcare**