

Causes for unintentional childlessness

We can define fertility as the inability to become pregnant after one year of regular sexual intercourse.

The causes of infertility are evenly distributed among men and women, 30-40% each.

In 15-30% of the cases, infertility actually results from both partners.

In 5-10%, the biological origin can not be diagnosed.

Female infertility can be attributed to hormones, obstructed fallopian tubes, or immunological factors.

Male infertility can be attributed to inadequate sperm production or dysfunctional sperm transport.

Male and female infertility can also be attributed to psychological factors.

Causes of Female Infertility

Infertility Caused by Hormonal Imbalances

The female menstrual cycle is a complex system, controlled by a multitude of hormonal influences. Hormonal imbalances can lead to disturbances in oocyte maturation, loss of ovulation and insufficient development of corpora lutea ("yellow bodies").

This can be caused by:

- high levels of male hormones
- extraordinarily stressful lifestyle
- intense exercise (e.g. competitive sport)
- eating disorders (anorexia, bulimia) or sudden weight loss
- excess weight
- impaired thyroid function
- tumor (rare).

Tubal Infertility

The fallopian tubes are a site for fertilization and serve as the "pathway" for fertilized eggs to reach the uterine cavity.

Tubal motility may be restricted or tubes may be completely or partially obstructed.

Causes include:

- previous infection
- adhesions or scar tissue from previous operations
- previous tubal pregnancy (possible removal of one or both fallopian tubes)
- endometriosis
- tubal ligation or tubectomy

Endometriosis

Endometriosis is diagnosed in approximately 15% of women suffering from infertility. The endometrium (uterine lining) grows somewhere outside the uterus, e.g. in the ovaries, fallopian tubes, intestines, bladder or peritoneum.

The exact cause for endometriosis is yet unknown.

PCO (Polycystic ovary)

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Infertility from Immunological Factors

If the female immune system malfunctions and identifies sperm or fertilized eggs as "foreign beings," they are "attacked", much like a disease. Thus, egg fertilization or nidation of an embryo in the uterus is not possible. This immune system malfunction can also cause continual abortions.

Changes in the Cervix and Uterus

The path of sperm through the cervix and uterus to the fallopian tube may be hindered or completely impeded by the formation of scar tissue and blockages resulting from infection or previous operations. Congenital defects of the cervix or uterus rarely cause infertility.

Age as a Cause of the Unfulfilled Desire to Have a Child

Starting at birth, 400,000 eggs are produced over time. Yet the number of both active and inactive follicles reduces with age, as does their reaction to hormones. As a result, eggs can not mature properly and can lead to menstrual cycles without ovulation.

The "aging of eggs" is also an important issue. Aging can cause chromosomal changes, impairing egg fertilization and embryo nidation or even resulting in miscarriage.

Causes of Male Infertility

Disruptions in Sperm Production

A spermogram assesses male fertility.
The essential parameters are:

- sperm count
- sperm motility
- sperm morphology.

Low sperm count: **OLIGOZOOSPERMY**

Few sperm with high motility: **ASTHENOZOOSPERMY**

Few sperm with normal morphology: **TERATOZOOSPERMY**

Disturbance of all three parameters: **OAT-Syndrom**

Other factors may lead to limited fertility:

- undescended testicle
- varicocele
- mumps
- hormone imbalances
- inflammation
- stress
- alcohol and nicotine use
- environment pollution
- diabetes
- operated tumors, chemotherapy, radiotherapy
- genetic causes (e.g.: Klinefelter's Syndrome)

Disruptions in Sperm Transfer

Even when a sufficient amount of viable sperm is produced, the pathway might still be blocked. The result is a lack of sperm in ejaculation (Azoospermia).

Causes:

- blockage of the spermatic duct due to inflammation
- sterilization (vasectomy)

In rare cases, spermatic ducts never form.

Psychological Causes

Infertility may often have a psychological basis. The mind could subconsciously inhibit pregnancy, protecting the couple from excessive demands. This may also be regarded as a psychosomatic protective mechanism.

Psychological causes might include:

- unresolved conflicts within the family (parents, siblings, grandparents) or with former partners
- high self-expectations
- exclusive focus on becoming pregnant
- performance pressure
- perfectionism
- excessive self-control
- inability to grieve the death of a loved one, miscarriage or stillbirth
- unconscious guilt about an earlier abortion
- unconscious fears (e.g. of birth, pregnancy, parental role, attachment)
- relationship conflicts
- unhealthy behaviors under stress
- traumatic experiences