

Major Risk Factors and Causes of Infertility

Russell Fair*

Department of Endocrinology, University of Manchester, Manchester, United Kingdom

DESCRIPTION

Infertility occurs when a male or female is unable to conceive due to a complication with either partner's reproductive system. Infertility can be classified as either primary or secondary. Primary infertility occurs when a person is unable to conceive at all. Secondary infertility occurs when a person has previously conceived but is now unable to do so.

Most common causes of male infertility

Semen and sperm problems that can make it more difficult for sperm to fertilize the egg include having a sperm count below 15 million, low sperm motility, or sperm with an odd shape that has a harder time fertilizing the egg. These sperm problems affect approximately 2% of males. A medical condition, such as a testicular infection, cancer, or a surgical procedure can cause infertility in males. An undescended testicle, a varicocele, a varicose vein in the scrotum, sauna or hot tub use, wearing tight garments, and working in hot conditions are all can be causes of overheated testicles. If the ejaculatory ducts become obstructed, semen may be ejaculated into the bladder. Hormonal imbalances, such as hypogonadism, can result in testosterone deprivation. A male should have both an X and a Y chromosome. When a person has two X chromosomes and one Y chromosome, as in Klinefelter syndrome, the testicles grow improperly, resulting in insufficient testosterone, a low sperm count, or no sperm at all. Mumps is the condition which causes inflammation of the testicles may decrease sperm production if it happens after puberty. If the ejaculatory ducts become obstructed, semen may be ejaculated into the bladder. Hormonal imbalances, such as hypogonadism, can result in testosterone deprivation.

Radiation therapy and chemotherapy both have the potential to affect sperm production. In the case of radiation therapy, the severity is usually determined by how near the radiation was to the testicles. Other diseases such as anemia, Cushing's syndrome, diabetes, and thyroid are all conditions that have been related to reduce male fertility. Certain medications raise difficulties in male fertility. Sulfasalazine (Azulfidine) and anabolic steroids are examples of some drugs.

Causes in females

Ovulation disorders account for around 25% of female infertility cases. The monthly release of an egg is known as ovulation. The eggs may never be released, or they may be released exclusively in certain cycles. Ovulation abnormalities can arise as a result of Hyperprolactinemia a condition in which if a woman's prolactin levels are high while she is not pregnant or lactating, it can interfere with ovulation and fertility. Thyroid issues, where a thyroid gland is hyperactive or underactive might cause a hormonal imbalance that interferes with ovulation. Polycystic Ovarian Syndrome (PCOS) is a hormonal disease that causes irregular or extended menstruation and interferes with ovulation.

Risk factors of infertility

Certain risk factors can raise the probability of infertility in both sexes.

Smoking: Smoking raises the risk of infertility in both sexes and may reduce the effectiveness of fertility treatment. Smoking during pregnancy increases the likelihood of miscarriage. Infertility has also been linked to passive smoking.

Chemotherapy: Certain chemotherapy medicines can cause ovarian failure or drastically lower sperm count.

Radiation: If it is directed at the reproductive organs, it can raise the risk of infertility.

Sexually Transmitted Infections (STIs): Chlamydia can cause fallopian tube damage in women and scrotum inflammation in men. Other STIs can also lead to infertility.

Age: Female fertility may begin to decline progressively before or around the age of 35, whereas male fertility declines beyond the age of 40.

In addition, other factors may be linked to infertility, although research in many cases is relatively limited.

Narcotics: Drugs such as cannabis and cocaine might reduce sperm count. Females who use cannabis or cocaine may experience reproductive issues.

Correspondence to: Russell Fair, Department of Endocrinology, University of Manchester, Manchester, United Kingdom, E-mail: carrollf@bristol.ac.uk

Received: 04-Nov-2022, Manuscript No. EMS-23-21345; **Editor assigned:** 07-Nov-2022, PreQC No. EMS-23-21345 (PQ); **Reviewed:** 25-Nov-2022, QC No. EMS-23-21345; **Revised:** 02-Dec-2022, Manuscript No. EMS-23-21345 (R); **Published:** 09-Dec-2022, DOI:10.35248/2167-0374.22.11.369.

Citation: Fair R (2022) Major Risk Factors and Causes of Infertility. *Endocrinol Metab Syndr*.11:369.

Copyright: © 2022 Fair R. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Certain chemical exposure: Some pesticides, herbicides, metals (including lead), detergents, and solvents have been related to male and female fertility issues.

Obesity: This may decrease the chances of both sexes conceiving. Stress might be a role, particularly if it leads to decreased sexual activity. It may also have an impact on female ovulation and male sperm production.

Exercising: Both too much and too little exercise can cause

reproductive issues in both sexes. It can have an effect on sperm count in men.

Nutrition: Both male and female fertility can be affected by an improper diet. Fertility issues may emerge if an eating disorder causes significant weight reduction. Excessive alcohol consumption may decrease sperm count. It may also have an impact on the success of *In Vitro* Fertilization (IVF) procedures.