

Infertility - female

New life begins when an egg from a woman is fertilised by sperm from a man. Ovulation occurs around 14 days before the start of the menstrual period, when an egg (ovum) is released from one of the ovaries. The egg is swept into the nearby fallopian tube and ushered towards the uterus (womb). If the egg is fertilised on its journey, it lodges in the womb lining (endometrium). Pregnancy then begins. The odds of a young fertile couple conceiving by having sexual intercourse around the time of ovulation are approximately one in five every month. A couple isn't thought to have fertility problems until they have tried, and failed, to conceive for one year. Approximately 20 per cent of couples experience difficulties. In most cases, the couple can be helped with assisted reproductive technologies. Around 40 per cent of fertility problems originate in the woman. Female fertility problems include failure to ovulate, and abnormalities of the fallopian tubes or uterus.

Ovulation problems

The menstrual cycle is orchestrated by a number of glands and their hormones working in harmony. For ovulation to occur, a part of the brain called the hypothalamus prompts the nearby pituitary gland to secrete hormones that trigger the ovaries to ripen eggs. Irregular or absent periods indicate that ovulation may be irregular or absent too. The age of the woman is a significant fertility factor. The chance of pregnancy for a woman aged 40 years and over is only five per cent per menstrual cycle. It is thought that ageing eggs may be the cause. A woman is born with her entire egg supply and, as time passes, these eggs become less viable. Other difficulties for the older woman include increased risk of miscarriage and genetic abnormalities in the unborn baby.

Polycystic ovary syndrome

At the time of ovulation, the ovaries produce small cysts or blisters called follicles. Typically, one follicle ripens to release an egg. In polycystic ovary syndrome, the follicles fail to ripen, forming little cysts at the periphery of the ovary and often releasing male sex hormones.

Problems with the fallopian tubes

The sperm fertilises the egg on its journey down the fallopian tube. A blocked or scarred fallopian tube may impede the egg's progress, preventing it from meeting up with sperm. A surgical procedure called laparoscopy can be used to check for obstructions.

Problems with the uterus

The fertilised egg lodges in the lining of the uterus. Some uterine problems that can hamper implantation include:

- **Fibroids** - non-malignant tumours inside the womb.
- **Polyps** - overgrowths of the endometrium, which can be prompted by the presence of fibroids.

Problems with the cervix

At the top of the vagina is the neck or entrance to the uterus, called the cervix. The cervix has a small central hole (the os) that allows passage of menstrual fluid and other secretions out of the uterus. Ejaculated sperm must travel through the cervix to access the uterus and fallopian tubes. Cervical mucus around the time of ovulation is normally thin and watery so that sperm can swim through it. However, thick or poor quality cervical mucus can hinder the sperm.

Endometriosis

Endometriosis is a condition in which cells from the lining of the uterus (the endometrium) migrate to other parts of the pelvis. This can also lead to fertility problems.

Idiopathic infertility

For around one in 10 couples investigated for infertility, no cause is found. This is called 'unexplained' or 'idiopathic' infertility.

Diagnosis methods

Investigating suspected infertility requires a number of tests for both the woman and her partner. Tests for the woman may include:

- **Blood tests** - to check for the presence of ovulation hormones.
- **Laparoscopy** - a 'keyhole' surgical procedure in which an instrument is inserted through a small incision in the abdomen so that the reproductive organs can be examined.
- **Ultrasound tests** - to check for the presence of fibroids.

A semen analysis may also be done to make sure that the male partner is fertile.

Treatment options

Treatment options for female infertility depend on the cause, but may include:

- **Hormone therapy** - to prompt ovulation.
- **Surgery** - to unblock fallopian tubes, treat endometriosis or remove fibroids.
- **Assisted reproductive technologies** - including in vitro fertilisation (IVF), where conception occurs in the laboratory and the fertilised egg is later implanted in the prepared uterus.

Treatment for female infertility does not bring about conception in all cases.

Where to get help

- Your doctor
- Family planning clinic
- Fertility clinic
- Public hospital.

Things to remember

- Around 40 per cent of fertility problems originate in the woman.
- Female fertility problems include failure to ovulate, blockages in the fallopian tubes, and abnormalities of the uterus, such as fibroids or endometriosis.

Treatment options include hormone therapy and surgery.

This page has been produced in consultation with, and approved by:

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