
Reproductive system

Summary

- Ova are made in the ovaries, and sperm in the testicles.
 - The genetic material of the ova and sperm combine to make the characteristics of the child.
 - If the ovum is unfertilised, the lining of the womb comes away (a period).
 - Sperm production requires a temperature around 2 °C lower than that of the body, which is why the testicles are housed in the scrotum.
 - The only function of the sperm is to fertilise a female egg and create new life.
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New life begins when an egg from a woman is fertilised by sperm from a man. Eggs (ova) are made in the ovaries, and sperm in the testicles. The ovaries and testicles (gonads) also make sex hormones.

The female reproductive system

The female reproductive organs are the vagina, womb (uterus), fallopian tubes and ovaries:

- Vagina – a muscular canal around 7.5 cm long that extends from the neck of the womb to the genitals, or vulva
- Uterus (womb) – a muscular organ, shaped like an upside down pear. Its lining is called the endometrium. The neck or entrance to the womb is the cervix, which has a small hole in its centre called the os
- Fallopian (uterine) tubes – these tubes extend from the womb, one on each side. They both open near an ovary. These tubes carry the egg (ovum) from the ovary to the womb
- Ovaries – two small almond-shaped glands that contain ova. Sex hormones are also made by the ovaries.

The menstrual cycle

Hormones secreted by the ovaries and a small gland in the brain called the pituitary gland control the menstrual cycle. The average menstrual cycle is around 28 days.

After a period, rising levels of the hormone oestrogen help to thicken the lining of the womb (the endometrium). At mid-cycle, an egg is released from one of the ovaries (ovulation). If the egg is fertilised on its journey down the fallopian tube, it lodges in the womb lining.

If the egg is unfertilised, falling levels of the hormone progesterone make the womb lining come away. This is called a period, or menstruation. The cycle then repeats.

When you want to have a baby you can improve your chance of getting pregnant if you know about ovulation and the 'fertile window' in the menstrual cycle. Read more on [**ovulation and fertility window**](#).

The egg (ovum)

A female's entire egg supply is developed when she is still an unborn baby. At the start of puberty, the eggs are ripened inside the ovary and released every month.

Each egg contains genetic material. At menopause, the ovaries stop making hormones and eggs are no longer ripened or released.

Female reproductive system problems

Some of the conditions women may experience at some time in their lives include:

- Endometriosis – the presence and growth of functioning endometrial tissue in places other than the uterus
 - Fibroids – non-malignant tumours of the womb
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- Infertility – inability to become pregnant
- Painful periods
- Premenstrual tension
- STIs – bacteria or viruses acquired through sexual contact, some of which can cause cancer or infertility.

The male reproductive system

The male reproductive organs are the penis, the testicles, the epididymis, the vas deferens and the prostate gland:

- Penis – contains tissue that fills with blood during sexual arousal, making the penis erect (or 'hard'). Semen is a mixture of sperm and fluid from the male reproductive organs. It exits the penis, through the urethra, during ejaculation
- The testicles (testes) – small oval sex glands located in a skin sack called the scrotum. Sperm and sex hormones are made by the testicles. Keeping the testicles outside of the body means they have a lower temperature, which is important for sperm production
- Epididymis – a series of small tubes attached to the back of each testicle. The epididymis collects and stores sperm
- Vas deferens – the epididymis eventually becomes the vas deferens, a larger tube that transports sperm to the urethra (the urinary passage from the bladder)
- Accessory sex glands – including the prostate gland, seminal vesicles and the bulbourethral glands. These glands contribute nourishing fluid to the sperm.

Male reproductive hormones

Hormones are chemical messengers made by glands in the body. Androgens are the hormones that make men 'male'.

Androgens are responsible for sexual functioning, fertility and secondary sexual characteristics such as muscle mass, height, deep voice and body hair (including the beard). The most important androgen is testosterone, which is manufactured in the testicles.

The sperm

The sperm is the male reproductive cell. Its role is to fertilise an egg. It contains the man's genetic material in its head.

A sperm is tadpole-shaped and around 60 microns in length (one micron is a millionth of a metre). It has a lashing tail, which helps it to 'swim' towards a waiting egg. Sperm production requires a temperature around 2 °C lower than that of the body, which is why the testicles are housed in the scrotum and happens. Sperm production continues throughout a man's life, from puberty into old age.

Male reproductive system problems

Some of the conditions men may experience at some time in their lives include:

- Impotence – a problem with getting or keeping an erection
- Infertility – the inability to achieve a pregnancy in a fertile woman due to low sperm production, blockages or other factors
- Prostate disease – benign prostate enlargement and prostate cancer
- STIs – bacteria or viruses acquired through sexual contact.

Where to get help

- Your doctor
- **Family Planning Victoria** Tel. (03) 9257 0100 Freecall: 1800 013 952
- **Andrology Australia** Tel. 1300 303 878

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Victorian Assisted Reproductive Treatment Authority

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