

Sexual reproduction in humans

Revision notes • The parts of the male and female reproductive systems and their functions, and fertilisation as the fusion of sperm and egg nuclei.

For Cambridge IGCSE Combined Science 0653. **Supplement** is Extended content, only examined on Papers 2 and 4.

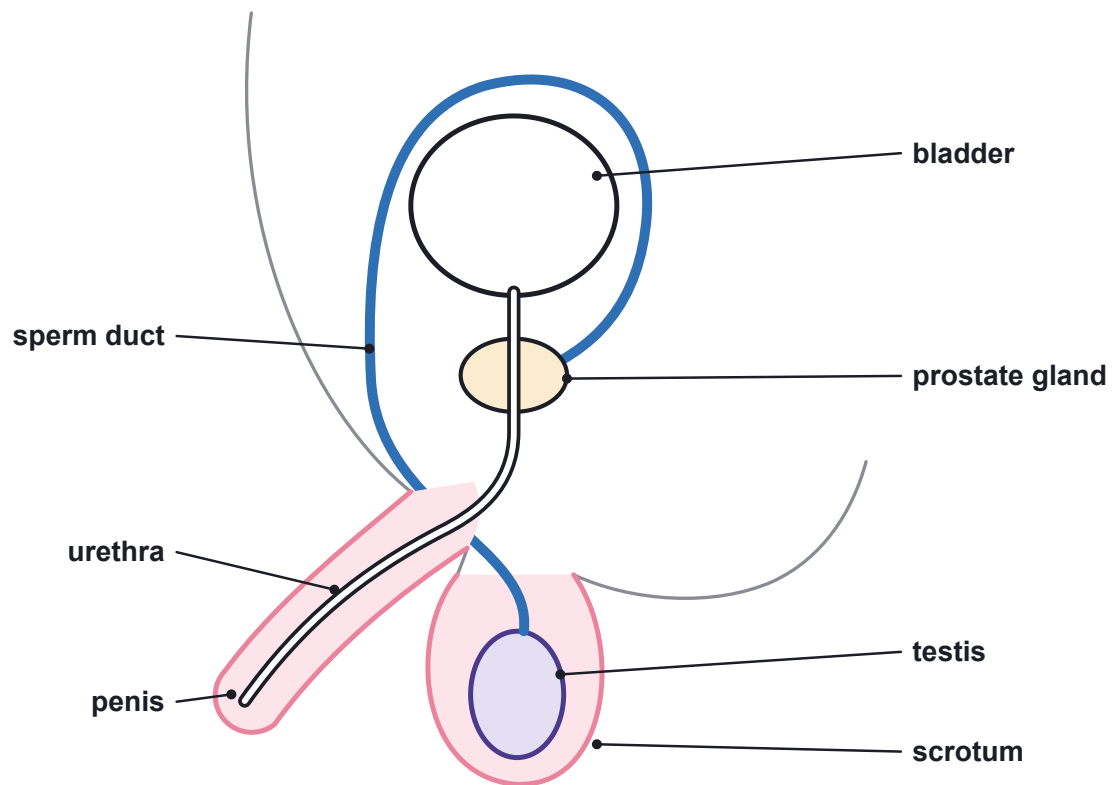
Sexual reproduction in humans Spec B14.2

The male and female reproductive systems Spec B14.2.1, B14.2.2

Humans reproduce sexually. The male system makes and delivers **sperm**. The female system makes **egg cells**, receives the sperm and carries the developing baby.

The male reproductive system

Parts of the male reproductive system	
Part	Function
Testes	Make sperm (and the hormone testosterone)
Scrotum	Bag of skin that holds the testes outside the body, where it is cooler than body temperature
Sperm ducts	Tubes that carry sperm from the testes to the urethra
Prostate gland	Adds fluid to the sperm to make semen, which helps the sperm to swim and gives them nutrients
Urethra	Tube inside the penis that carries semen (and urine) out of the body
Penis	Places sperm inside the vagina during sexual intercourse

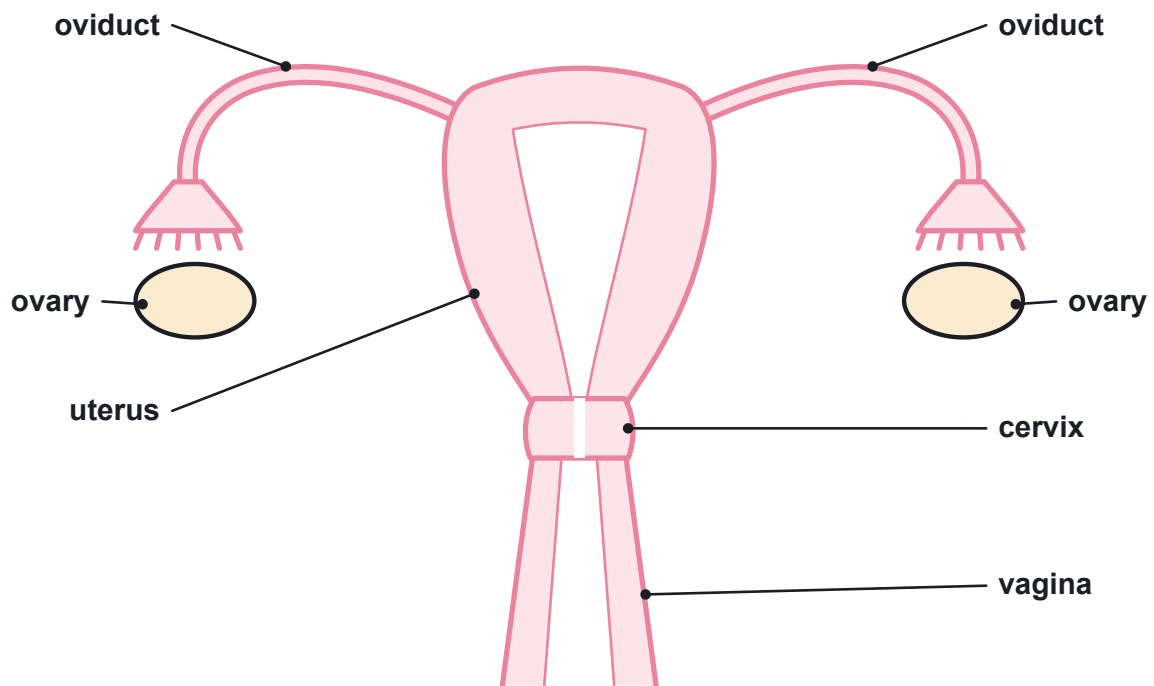


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The male reproductive system. Sperm travel from the **testis** along the **sperm duct** (blue) to the urethra.

The female reproductive system

Parts of the female reproductive system	
Part	Function
Ovaries	Make and release egg cells (and the hormones oestrogen and progesterone)
Oviducts	Tubes that carry the egg cell to the uterus. Fertilisation usually happens here
Uterus	Muscular organ with a soft lining, where the embryo implants and the fetus develops
Cervix	Ring of muscle at the opening of the uterus that keeps the fetus in during pregnancy
Vagina	Receives the penis and the sperm during sexual intercourse. The baby passes through it at birth



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The female reproductive system. The funnel-shaped end of each **oviduct** lies close to an ovary.

Exam tip: Do not mix up the oviduct (carries the egg) and the sperm duct (carries sperm). Do not mix up the urethra and the ureter either. The ureter is part of the urinary system.

Gametes and fertilisation Spec B14.2.3

In humans, **fertilisation** is the fusion of the nuclei from a male gamete (sperm) and a female gamete (egg cell). The fertilised egg is called a **zygote**.

Quick check

1. Which part of the male reproductive system carries sperm from the testes to the urethra?
2. Name the part of the female system where the fetus develops.
3. What happens at fertilisation?

Quick check answers

Sexual reproduction in humans

- 1 . The sperm duct.
- 2 . The uterus.
- 3 . The nucleus of a sperm fuses with the nucleus of an egg cell.