

This is the **Higher Separate** version — includes all Higher Tier content (marked ★) and all Separate Science content.

The menstrual cycle is controlled by four hormones working together in a coordinated feedback system.

- FSH (follicle-stimulating hormone): produced by pituitary. Stimulates egg maturation in ovary. Stimulates oestrogen production.
  - Oestrogen: produced by ovary. Repairs and thickens the uterus lining. At high levels, inhibits FSH production (negative feedback). Stimulates LH release (positive feedback at peak).
  - LH (luteinising hormone): produced by pituitary. Surge on day ~14 triggers OVULATION (release of egg from ovary).
  - Progesterone: produced by corpus luteum (remains of follicle after ovulation). Maintains uterus lining. If no fertilisation, corpus luteum breaks down → progesterone falls → menstruation → cycle restarts.
  - Cycle length: ~28 days. Day 1 = first day of menstruation.
  - Menstruation: uterus lining breaks down and is shed (days 1–5 typically).
- ★ **HT** The interplay: FSH stimulates oestrogen → high oestrogen triggers LH → LH triggers ovulation → progesterone maintains lining → if no pregnancy, progesterone falls → new cycle begins.

### Key Terms

<b>FSH</b>	Follicle-stimulating hormone — from pituitary — stimulates egg maturation and oestrogen production
<b>LH</b>	Luteinising hormone — from pituitary — surge triggers ovulation (egg release)
<b>Oestrogen</b>	Ovarian hormone — repairs uterus lining, triggers LH surge, inhibits FSH at high levels
<b>Progesterone</b>	Hormone from corpus luteum — maintains uterus lining after ovulation
<b>Corpus luteum</b>	The structure remaining after ovulation — produces progesterone
<b>Ovulation</b>	Release of a mature egg from the ovary — triggered by LH surge (~day 14)

■ **Exam Tip:** Learn the SEQUENCE: FSH → oestrogen rises → LH surge → ovulation → progesterone rises (maintains lining) → if no pregnancy, progesterone falls → menstruation. In exams, you may be given a hormone graph and asked to link it to events in the cycle.