

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

Hormones can be used both to prevent pregnancy (contraception) and to help couples conceive (fertility treatment).

- Hormonal contraception: oestrogen and/or progesterone in the pill or implant — inhibit FSH release → no egg maturation → no ovulation.
- Barrier methods: condom or diaphragm — physically prevent sperm reaching the egg. Also protect against STIs.
- IUD (intrauterine device): copper or hormonal — prevents implantation of fertilised egg.
- Fertility drugs (e.g. clomifene): stimulate FSH release → stimulates egg maturation → increases chance of ovulation.
- IVF (in vitro fertilisation): FSH given to stimulate multiple egg production → eggs collected → fertilised by sperm in lab → embryo cultured for 2-3 days → embryo implanted in uterus.
- ★ **HT** Success rate of IVF: ~25-30% per cycle for women under 35. Lower with age.
- ★ **HT** Ethical issues with IVF: multiple embryos created — unused embryos may be destroyed. Multiple births (if multiple embryos implanted). Expensive. Not always available on NHS.

Key Terms

Contraception	Methods used to prevent pregnancy
Oestrogen/progesterone pill	Hormonal contraceptive — prevents ovulation by inhibiting FSH release
IVF	In vitro fertilisation — fertilisation outside the body, embryo then implanted in uterus
Fertility drug	Drug (e.g. clomifene) that stimulates FSH production and egg maturation

■ **Exam Tip:** Contraceptive pill works by PREVENTING OVULATION — it inhibits FSH so no egg matures. IVF does the opposite — FSH is given to stimulate MULTIPLE eggs to mature. Know the difference clearly.