

Menstrual Cycle

Hormones in the Menstrual Cycle

FSH

- Produced in the pituitary gland
- Causes an egg to mature in an ovary in a structure called a follicle
- Stimulates the production of insulin

Oestrogen

- Produced in the ovaries
- Causes the lining of the uterus to thicken
- Stimulates the release of LH. Inhibits FSH (so no more eggs are matured)

LH

- Produced by the pituitary gland
- Stimulates the release of an egg (ovulation)

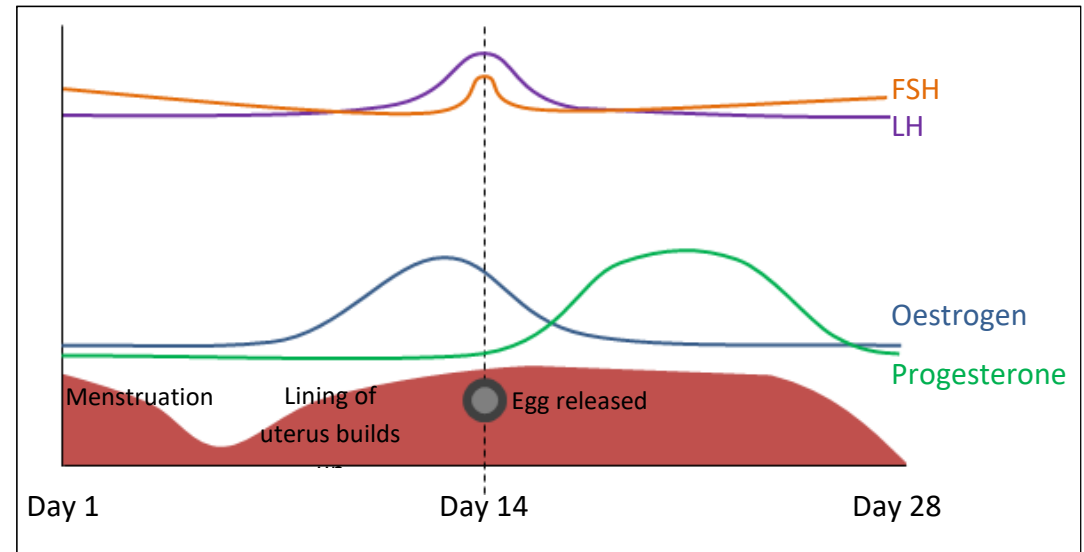
Progesterone

- Produced by the follicle in the ovaries
- Maintains the lining of the uterus
- Inhibits FSH and LH

IVF

FSH and LH are given to the woman to eggs to mature. They are then collected from a woman's ovaries and fertilised in a lab. The fertilised eggs are grown into embryos then transferred back into the woman.

Multiple births can occur as two embryos are implanted to increase the chance of success (as the success rate is low). It is also an emotionally and physically stressful process. Some people think it is unethical as the unused embryos (which are a potential new life) are destroyed.



Reducing Fertility

The pill is an oral contraceptive and contains oestrogen and progesterone:

- **Oestrogen** taken every day inhibits FSH, so eggs are not matured and released.
- **Progesterone** causes a thick mucus to be released, stopping sperm getting to the egg.

Other methods of hormonal contraceptives are:

- **Patch**: contains oestrogen and progesterone
- **Implant**: implanted under the skin and releases progesterone.
- **Injection**: contains a dose of progesterone that lasts for 2 – 3 months.
- **Intrauterine device (IUD)**: a T shaped device that is inserted into the uterus. It kills sperm and prevents implantation of a fertilised egg.

Increasing Fertility – FSH and LH can be injected.

The disadvantage is that it doesn't always work and can cause multiple eggs to be released (resulting in multiple births).