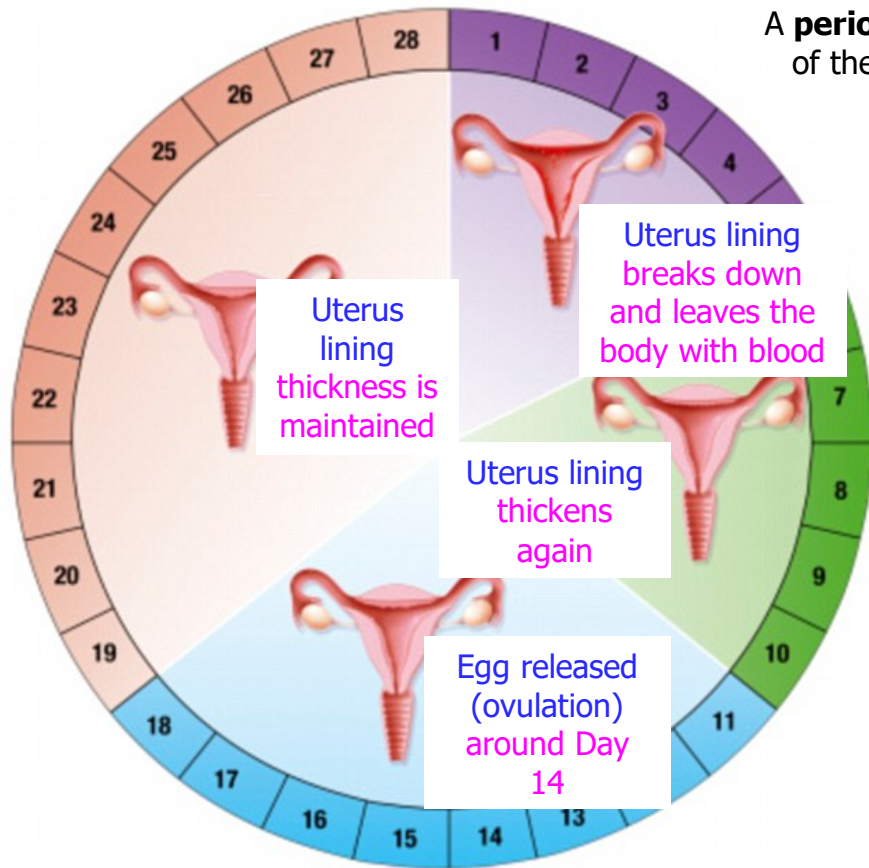


## A. OVERVIEW

- Prepares a woman's body for **pregnancy** by:
  - **thickening the uterus lining**
  - **releasing an egg (ovulation)**



A **period** marks the **start** of the menstrual cycle

## B. FOLLICLES & HORMONES

- The ovaries contain **follicle cells** – each of these is a **fluid-filled sac** that contains an **immature** egg (oocyte).
- **Eggs** must be **matured** before they can be used.
- The **glands** and **hormones** that control the menstrual cycle are:

**PITUITARY GLAND  
(BRAIN)**

**Releases:**

- **FSH** (Follicle Stimulating Hormone)
- **LH** (Luteinizing Hormone)

**OVARIES**

**Releases:**

- **oestrogen**
- **progesterone**

## C. SPECIFICS

START HERE

### 1. FSH

- Stimulates a **follicle** to **mature**, containing an **egg** (oocyte)
- Stimulates **oestrogen** release from **follicle cells**

### 3. LH


- Causes **ovulation** – the **follicle bursts open** and **releases** the **egg**
- Follicle now becomes a **corpus luteum** which secretes oestrogen and **progesterone**


### 2. OESTROGEN

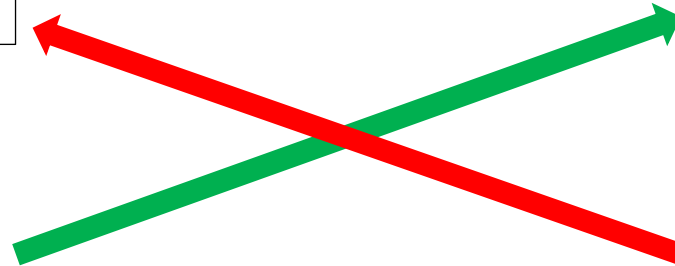
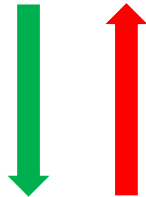
- **Repairs** and **thickens** the **uterus lining**
- Initially, stimulates an **increase in FSH receptors** on **follicle cells** so they are **more receptive** to **FSH**
- This **increases oestrogen production** even more ( **+ feedback** )
- At **high** levels, oestrogen:
  - **inhibits FSH** secretion
  - (So) **oestrogen level falls** too ( **- feedback** )
  - **stimulates LH** release

### 4. PROGESTERONE

- **Thickens** and **maintains** the **uterus lining**
- **Inhibits FSH** and **LH** release ( **- feedback** )

 = **stimulates** release of

 = **inhibits** release of



## D. WHAT HAPPENS NEXT?

- This depends on **what happens to the egg**.





If the egg  
**IS** fertilised

If the egg **IS**  
**NOT** fertilised

- Progesterone **continues** to be produced
- By **corpus luteum** and then the **placenta**
- Uterus lining **stays** thick
- FSH and LH release is **inhibited**
- Follicles **cannot** mature
- Egg **cannot** be released
- Periods **stop**

- Progesterone level **falls**
- (As) corpus luteum **breaks down**
- Uterus lining is **shed** from body (period)
- FSH and LH **no longer** inhibited
- Follicles **can** mature
- Egg **can** be released
- Menstrual cycle starts again

## E. FERTILITY DRUGS & CONTRACEPTIVES

FERTILITY DRUGS	CONTRACEPTIVES
	
Contain <b>FSH</b> and <b>LH</b>	Contain <b>oestrogen</b> and <b>progesterone</b>
Stimulates ovaries to:	<b>Prevent</b> FSH and LH release
<ul style="list-style-type: none"> <li>- <b>mature</b> a follicle</li> <li>- <b>release</b> an egg</li> </ul>	Follicles <b>cannot</b> mature
Follicles <b>can</b> mature	Egg <b>cannot</b> be released
Egg <b>can</b> be released	(So) <b>no egg</b> present to fertilise
(So) <b>egg is</b> present to fertilise	

- Too high a dosage of **FSH** and **LH** could cause **multiple births**.
- (As) **more than one follicle** may **mature** and **more than one egg** may be released.