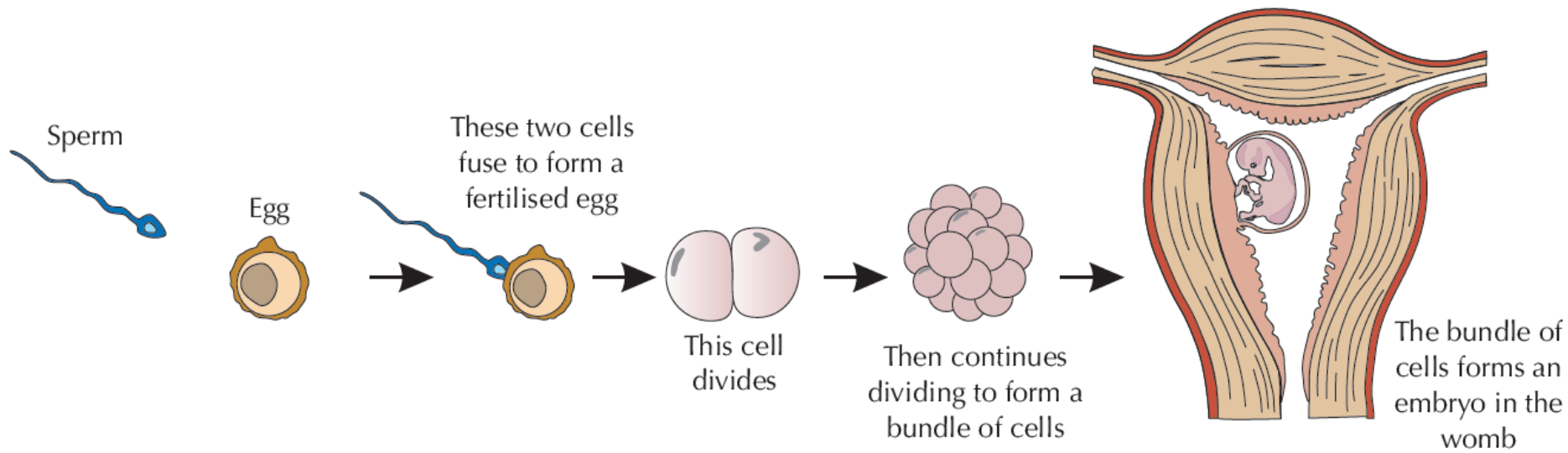


Chapter 10: Human Reproduction

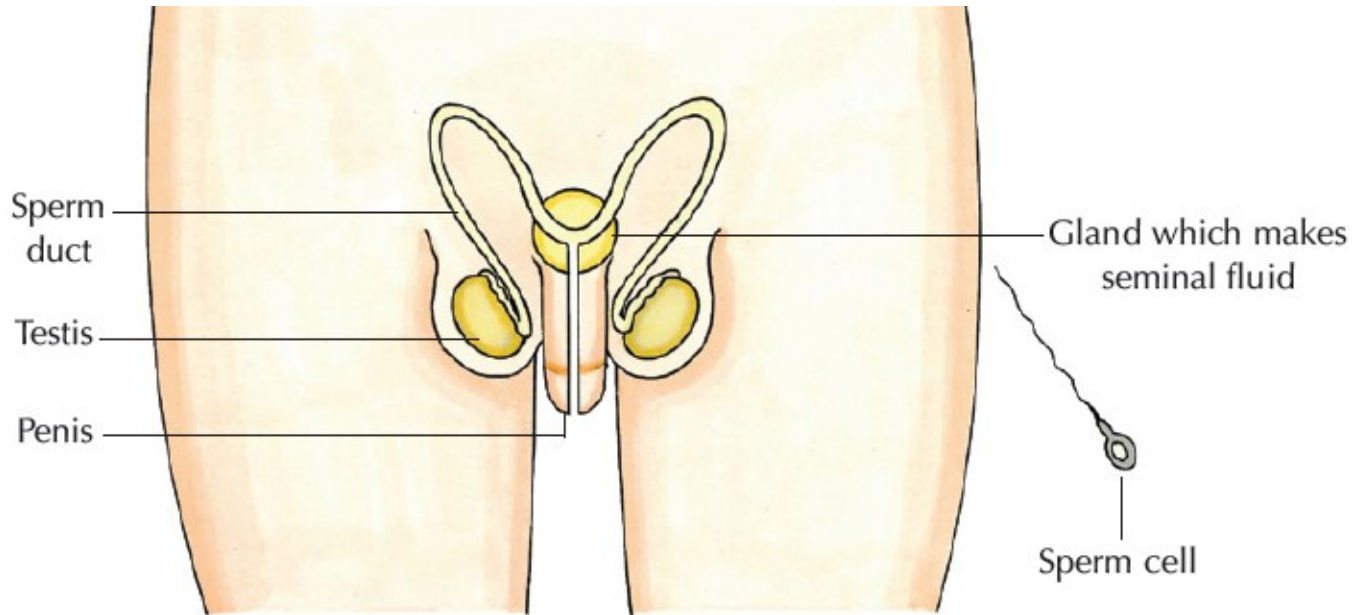
Just like in plant reproduction, Human reproduction begins when the male gamete (sperm) fuses with the female gamete (egg cell). Here fertilisation occurs.

What happens??

- Sperm is made in the testes of the man.
- The egg is made in the ovaries of the woman.
- The sperm fuses with the eggs and fertilises the egg.
- The egg (single cell) begins to divide and forms millions of cells.
- A baby is formed after 40 weeks.



The Male Reproductive System

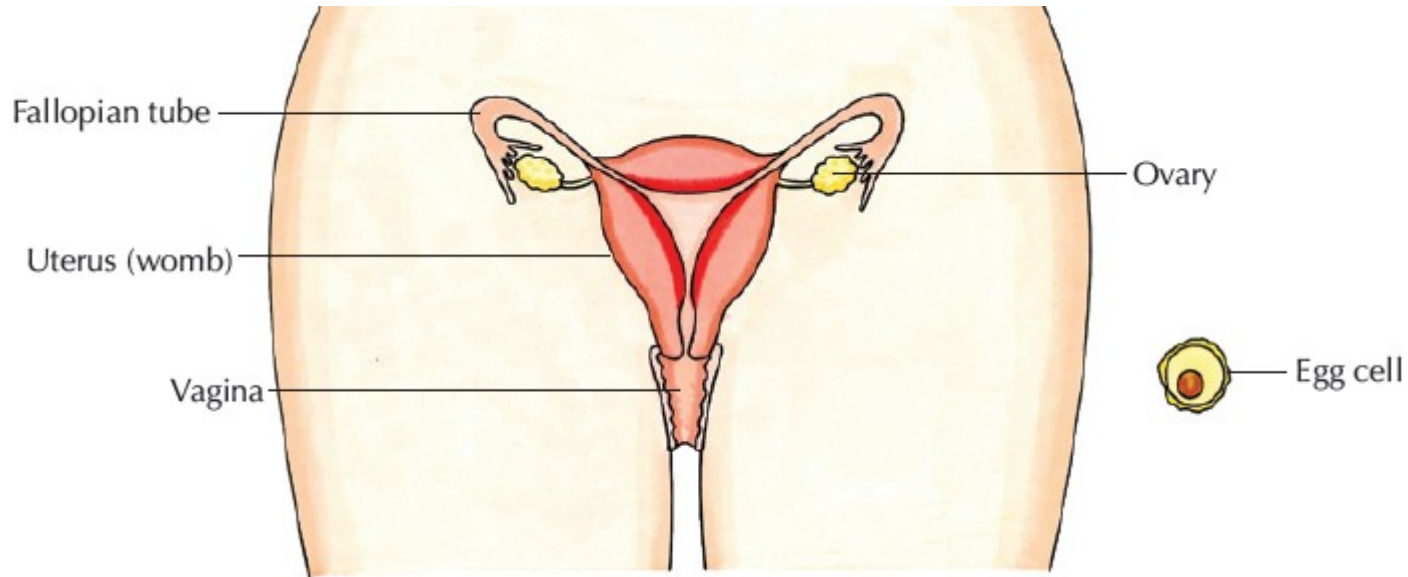


- The sperm is made in the testes and is stored outside the body.

Puberty for boys. (occurs from 10 to 15 years)

- Sex hormones (*Testosterone*) are released
- Hair grows around on the chest, armpits and around the sex organs
- Voice deepens
- The penis and testes grow and sperm is produced

The Female Reproductive System

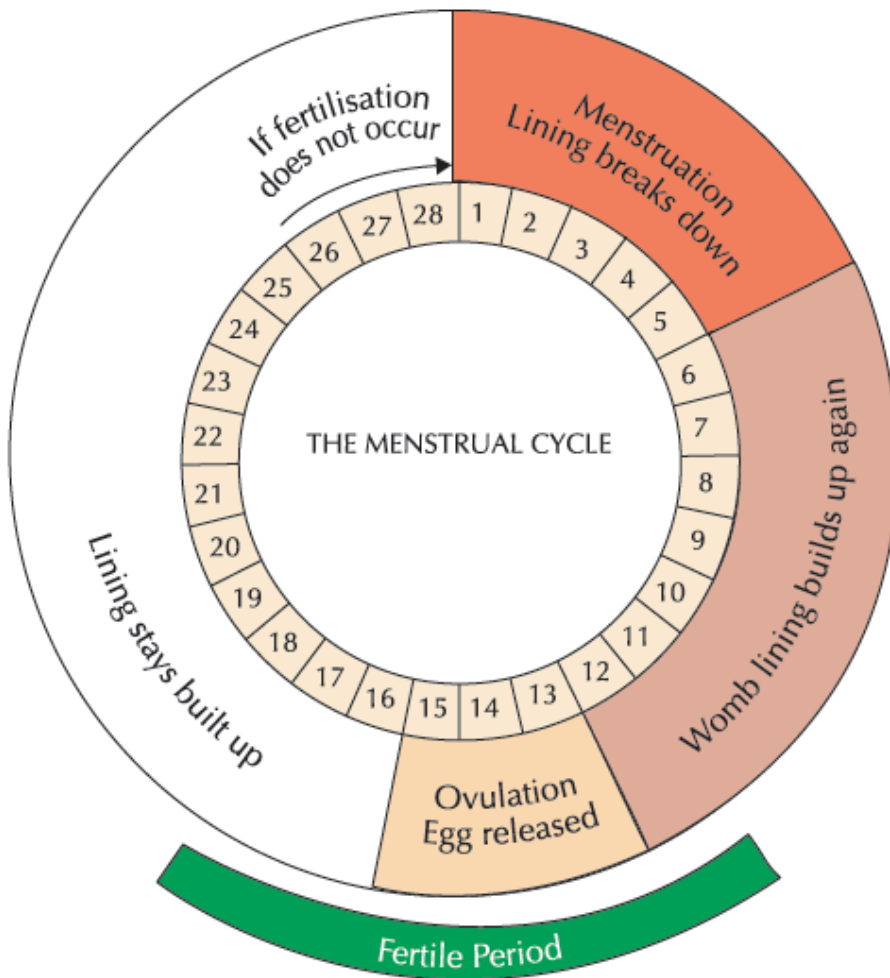


- The egg is made in the ovary. One is produced every 28 days.

Puberty for Girls.

- Sex hormones are released
- The breasts develop and the hips widen.
- Hair grows on the body.
- The first egg is released leading to the first period.

The Menstrual Cycle.



- An egg is released every 28 days
- This is called ovulation.
- During these 28 days the body prepares itself for pregnancy.
- Days 1 – 5: Menstruation. (period occurs)
- Days 6 – 12: Womb lining builds up
- Days 13 – 15: Ovulation
- Day 16 – 28: Lining remains in case pregnancy occurs.

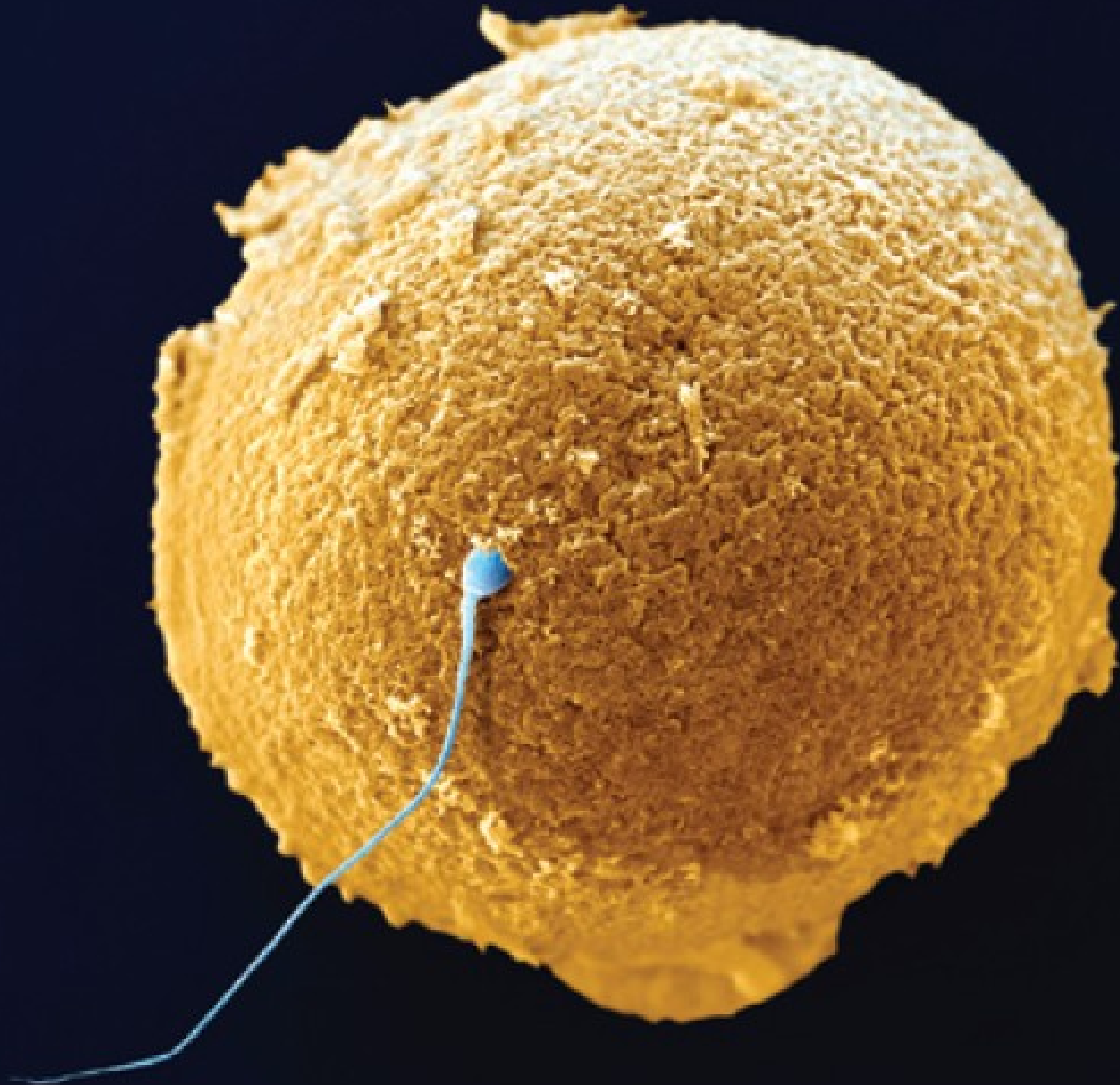
Fertilisation.

Intercourse.

- Man's penis fills with blood and becomes hard (erect).
- The penis is inserted into the vagina and semen (sperm and seminal fluid) is released.
- The sperm swims through the uterus into the fallopian tubes.

How does the woman become pregnant??

- If there is an egg in the fallopian tubes, a sperm can fuse with the egg and make it fertile. The woman is now pregnant.
- This single cell begins to divide as it moved down towards the uterus.
- It eventually settles into the uterus lining and continues to divide into an embryo.



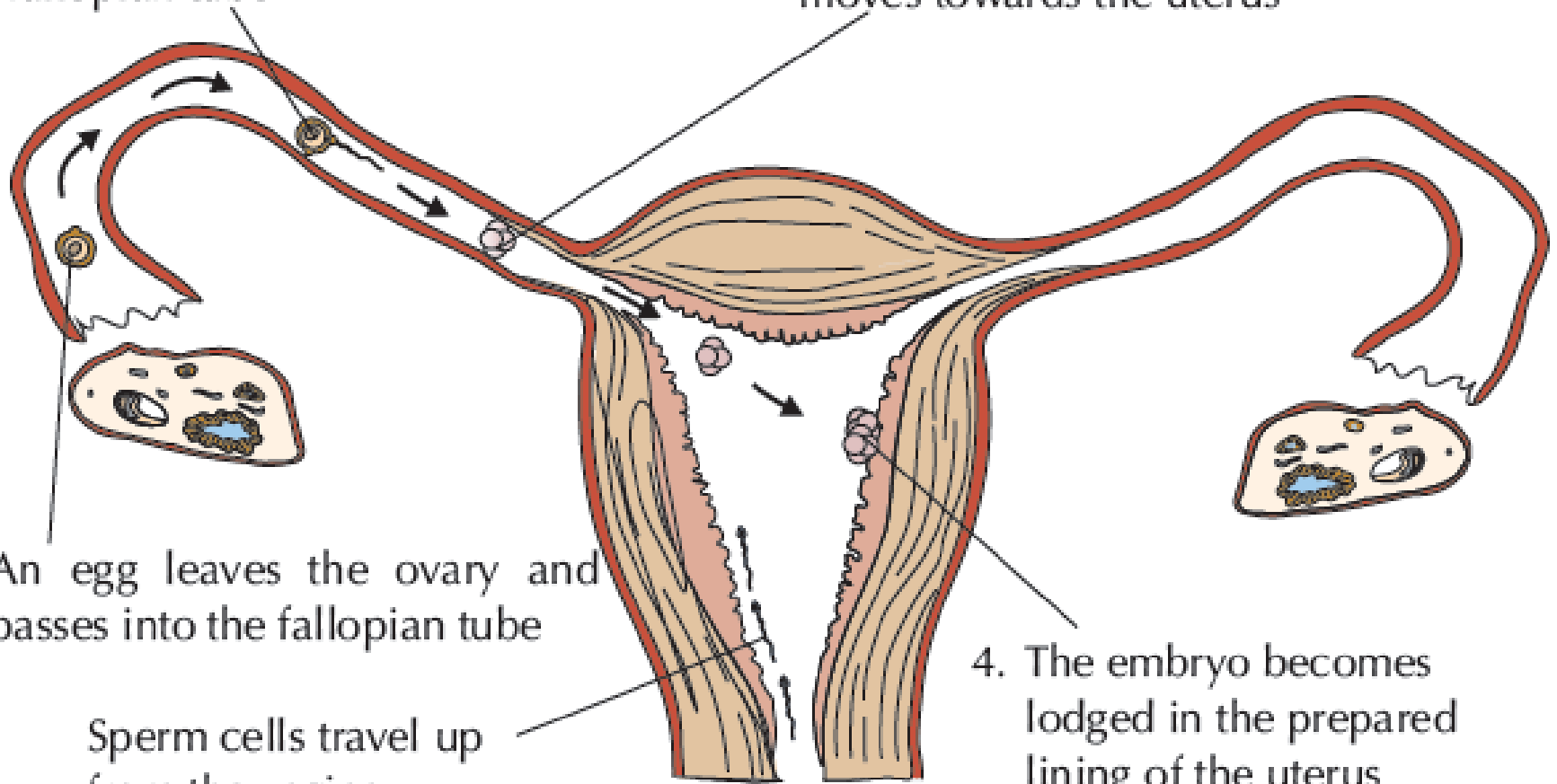
2. Fertilisation occurs in the fallopian tube

3. The fertilised egg divides and moves towards the uterus

1. An egg leaves the ovary and passes into the fallopian tube

Sperm cells travel up from the vagina

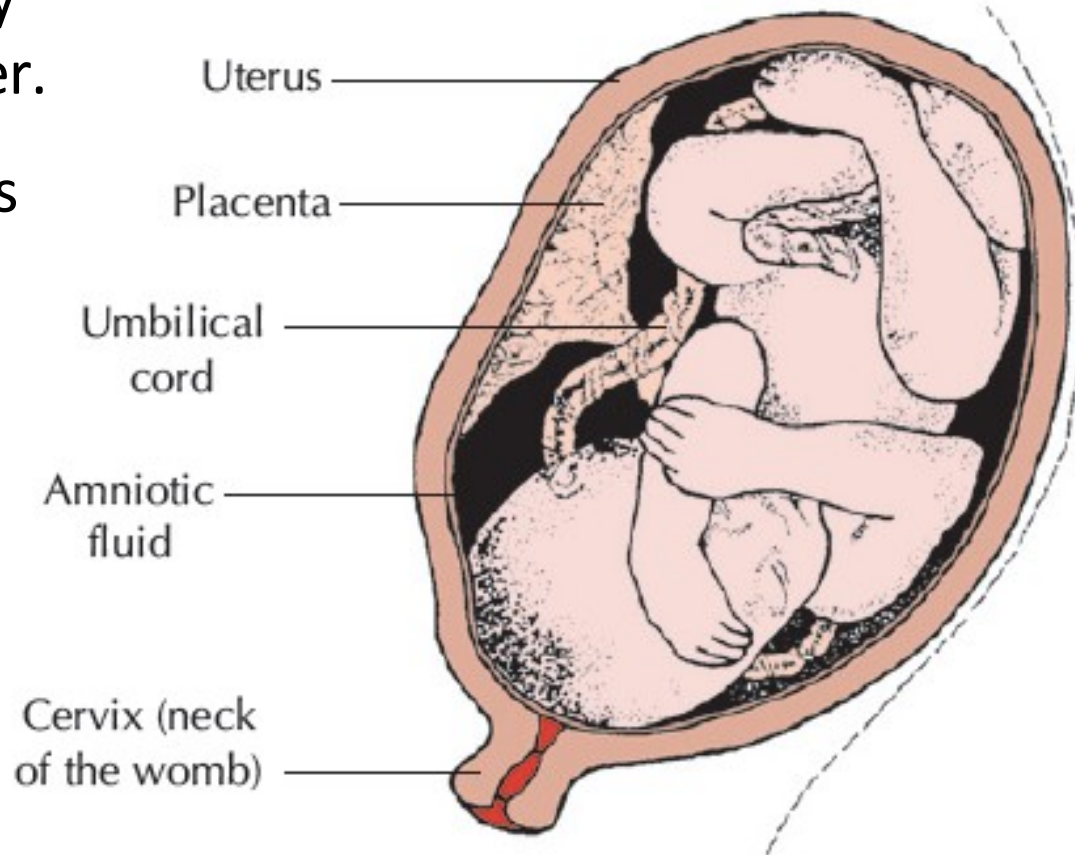
4. The embryo becomes lodged in the prepared lining of the uterus





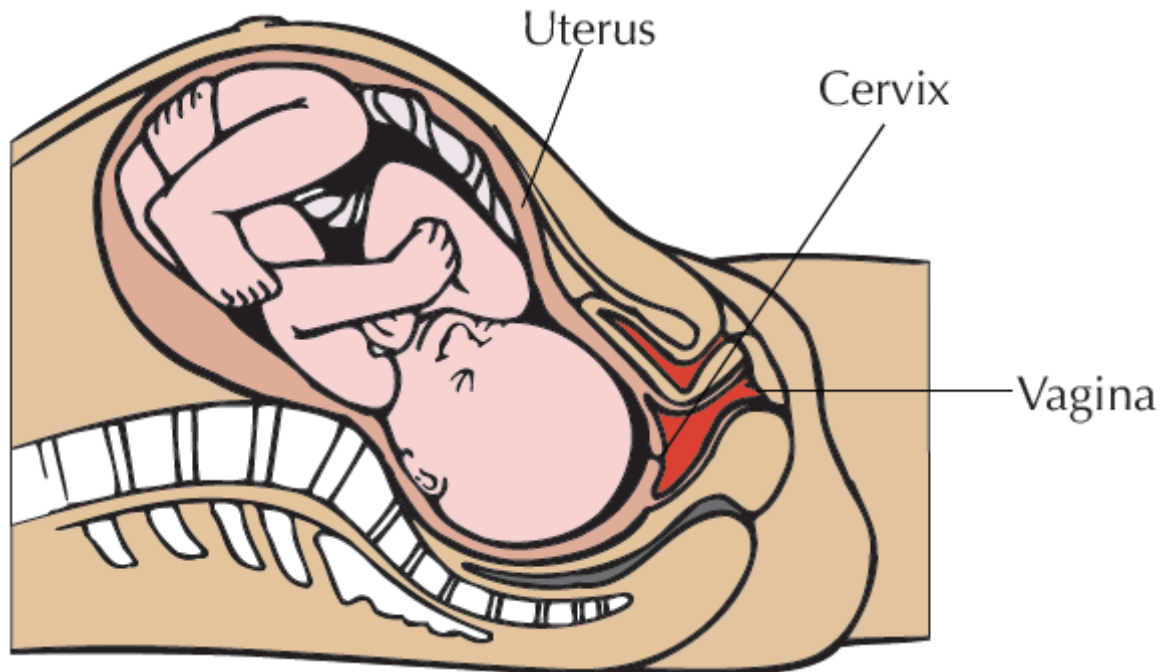
Pregnancy.

- Average length is 40 weeks.
- Food and oxygen is passed through the umbilical cord from the placenta to the embryo.
- Wastes also travel this way from the baby to the mother.
- The amniotic fluid protects the embryo while in the womb.



Birth.

- Birth begins with Labour. This is when the uterus begins to contract.
- The amniotic fluids bursts (water breaks).
- The baby is now ready to be born.
- The umbilical cord is then clamped and cut.
- The placenta is pushed out of the womb.
- The mother is cleaned and stitched.



Family Planning.

- Family planning is where couples plan pregnancy.
- To do this, they must control when fertilisation can and cannot occur.

Contraception.

Natural Methods

This is calculating the day of ovulation and not having intercourse during the fertile period.

Artificial Methods

Condoms: They prevent the sperm from getting in contact with the egg.

Pill: This used chemicals to prevent ovulation.