

PSHE

In personal, social,
health and economic
education

WALT understand sexual
reproduction in mammals.

Key Vocabulary

- **Fertilisation** - the action or process of fertilizing an egg or a female animal or plant, involving the fusion of male and female gametes to form a zygote
- **Egg cell (ovum)** – the female reproductive cell stored in the ovaries.
- **Embryo** - an unborn or unhatched offspring in the process of development, in particular a human offspring during the period from approximately the second to the eighth week after fertilization
- **Foetus** - an offspring of a human or other mammal in the stages of prenatal development that follow the embryo stage (in humans taken as beginning eight weeks after conception).
- **Conception** – the action of conceiving a child or of one being conceived.
- **Ejaculate** – the release of semen from the male body.
- **Contraception** – methods of preventing a woman from getting pregnant.
- **Surrogacy** – when a woman carries and gives birth to a baby for another person or couple.
- **Umbilical chord** - the long, tube-like structure that connects a baby that has not yet been born to its mother's placenta
- **Amniotic sac** - a bag of liquid that surrounds the embryo of a mammal, bird, or reptile inside its mother
- **Placenta** - the temporary organ that feeds a foetus

Health and Wellbeing - Sex and Relationship Education (SRE)

Puberty Recap

Key Vocabulary

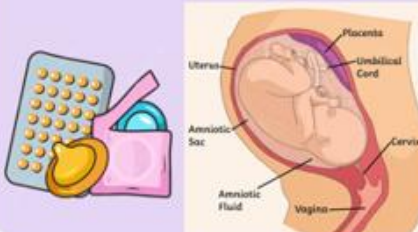
Puberty	the period during which adolescents reach sexual maturity and become capable of reproduction.
Reproduction	the production of offspring by a sexual or asexual process.
Hormones	substances made by certain organs and transported around the body to get certain cells or tissues to do their designated job.
Larynx	the hollow muscular organ forming an air passage to the lungs and holding the vocal cords in humans and other mammals; the voice box.
Sweat Gland	a small gland that secretes sweat, situated in the dermis of the skin.
Pubic Area	the area between your legs.
Breast	part of a woman's anatomy designed to feed infants.
Scrotum	a pouch of skin holding the testicles (testes).
Testicles (Testes)	oval shaped organs that hold sperm.
Sperm Cell	one of the two cells needed to create babies.
Penis	the male sexual reproductive organ.
Uterus (womb)	an organ inside a woman's body where reproduction happens and where the baby grows.
Ovaries	organs in a woman's body where her eggs are stored and from which hormones are created.
Menstruation	a monthly event where the soft lining of the uterus (which prepares itself for the potential baby that could grow) leaves the uterus because it isn't needed.
Vagina	opening through which the lining of the uterus leaves the body monthly, and that babies come through during a normal birth.



Reproduction

Key Vocabulary

Fallopian tube	a pair of tubes along which the egg travels from the ovaries to the uterus.
Cervix	the narrow passage forming the lower end of the uterus.
Fertilisation	the action or process of fertilizing an egg or a female animal or plant, involving the fusion of male and female gametes to form a zygote.
Egg Cell	the female reproductive cell stored in the ovaries.
Embryo	an unborn or unhatched offspring in the process of development, in particular a human offspring during the period from approximately the second to the eighth week after fertilization.
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Umbilical cord	the long, tube-like structure that connects a baby that has not yet been born to its mother's placenta.
Placenta	the temporary organ that feeds a foetus.



Safe, Sexual Relationships

Key Vocabulary

Sex	physical activity between people involving the sexual organs.
Consent	permission or agreement.
Relationship	The way in which two or more people or things are connected.
STI	A sexually transmitted (passed) infection.



The law around sex is designed to protect individuals, especially young people and vulnerable groups. Consent is a fundamental principle, meaning that everyone involved must give permission to engage in sexual activity.

It is illegal to engage in sexual activity without consent, and it is considered sexual abuse if someone is forced into sexual activity. **The age of consent in the UK is 16**, and it is illegal for anyone to have sexual contact with someone under the age of 13.

Additionally, it is a criminal offense for someone in a position of trust to engage in sexual activity with a person under the age of 18.



Our PSHE Ground Rules

1. What's discussed now isn't discussed outside the room on the playground.
2. Be respectful of other peoples questions.
3. Only share what you feel comfortable sharing (we won't cold call you or put you on the spot).
4. Laughter is okay (as we all feel uncomfortable talking about these topics) but we do need to learn about them and be as sensible as we can.
5. Please don't share personal experiences or examples, especially not naming names.
6. If anything we talk about worries or upsets you please speak to a trusted adult.

Questions

- Throughout this lesson you can write down any questions you have on the piece of paper provided.
- We will give you all time at the end to write any questions.
- To save people feeling it's obvious they've asked something we want everyone to write something even if its just 'I don't have any questions'. This helps people feel comfortable and stay anonymous.
- We will collect your questions and answer them if we can.



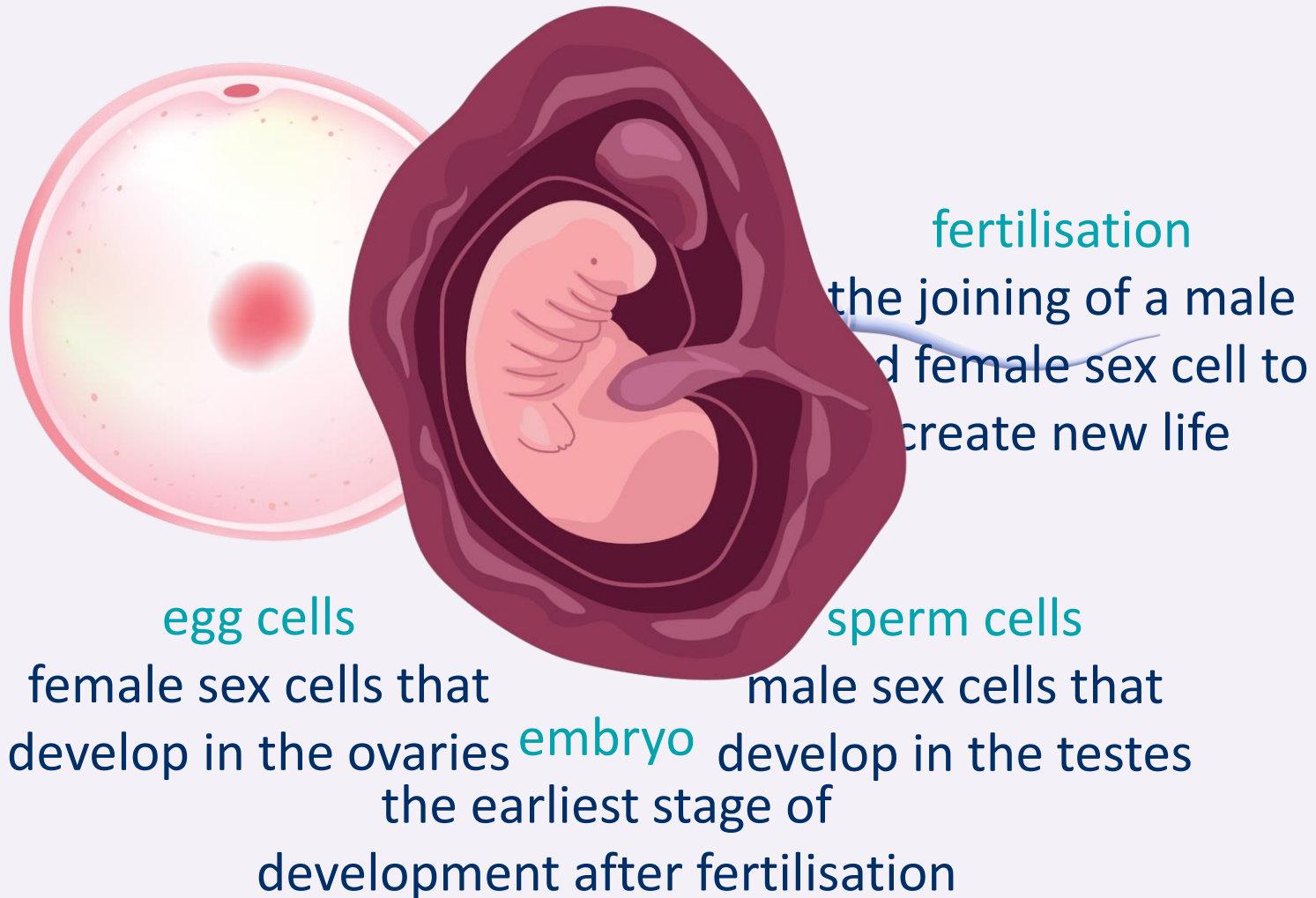
What is Sexual Reproduction?

In today's lesson we are going to talk about and answer the following questions:

- How is a baby conceived?
- What is contraception?
- How does a baby grow?
- How is a baby born?

Key Vocabulary

Sexual reproduction is the process of making non-identical offspring which requires two parents.



fertilisation

the joining of a male and female sex cell to create new life

egg cells

female sex cells that develop in the ovaries

sperm cells

male sex cells that

embryo

develop in the testes

the earliest stage of

development after fertilisation

What is Sexual Reproduction?

A male produces **sperm** in his testicles.

Once a month, the female's body releases an **egg**.

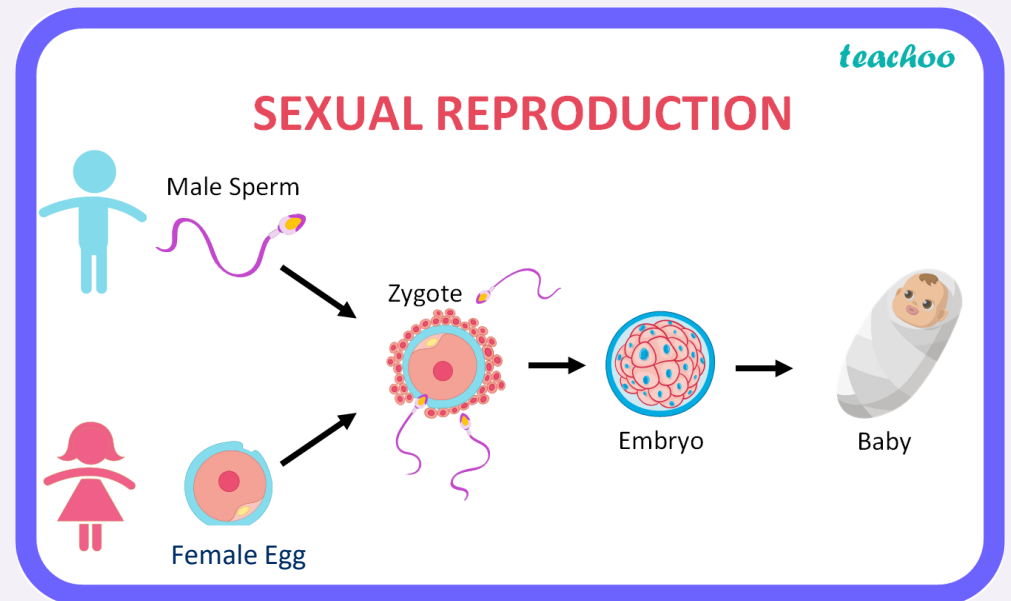
A male and a female in a loving relationship might decide to have **sexual intercourse** to try and make a baby.

Only **one** sperm can fertilise the egg.

A fertilised egg takes **nine** months to grow into a baby.

The female carries the baby inside her **womb (uterus)**.

Two people who want to have sexual intercourse but do not want to make a baby, might use a method of **contraception**, such as a condom or a pill.



These animals are mammals.



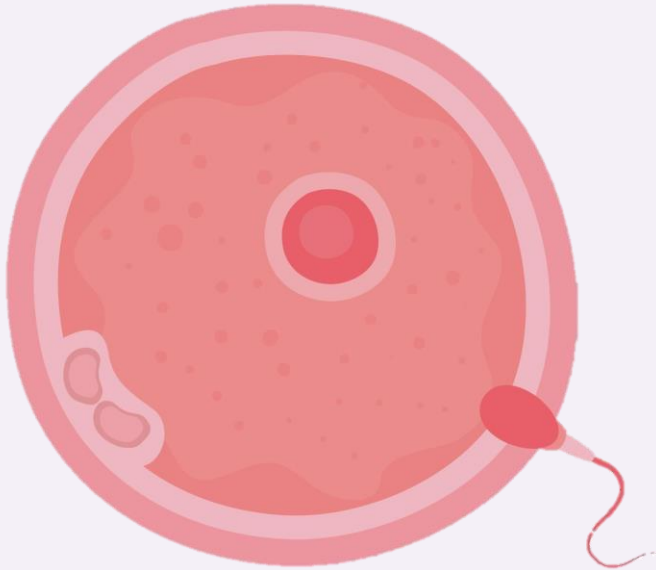
How do most mammals give birth?

Most mammals give birth to live young.



From Conception to Birth

Human reproduction is amazing!



From a sperm fertilising an egg (otherwise known as conception)...



...to the birth of a baby.

Humans are mammals that give birth to live young.



Offspring are produced through **sexual reproduction**.

Sexual reproduction requires two parents.

male



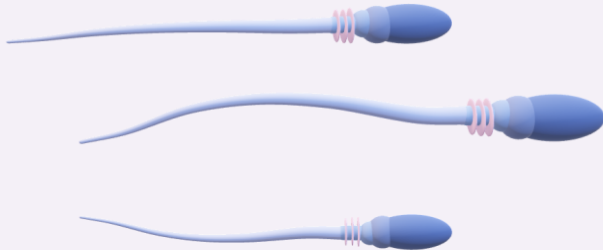
female



Sexual reproduction involves male and female sex cells.

male

female



sperm cells

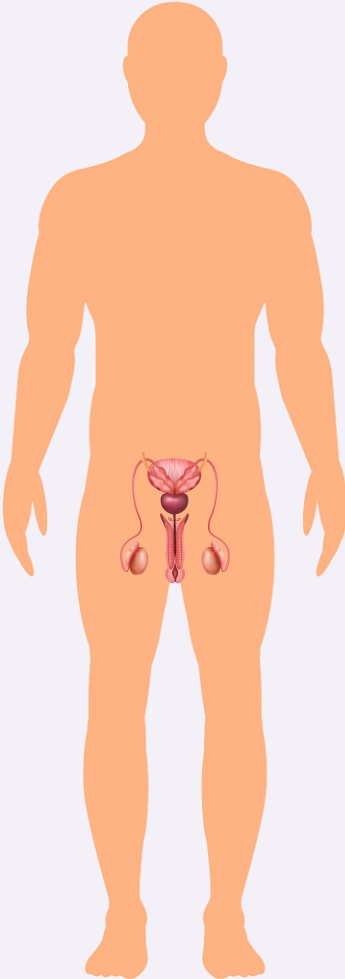
egg cells

male sex cells that
develop in the testes

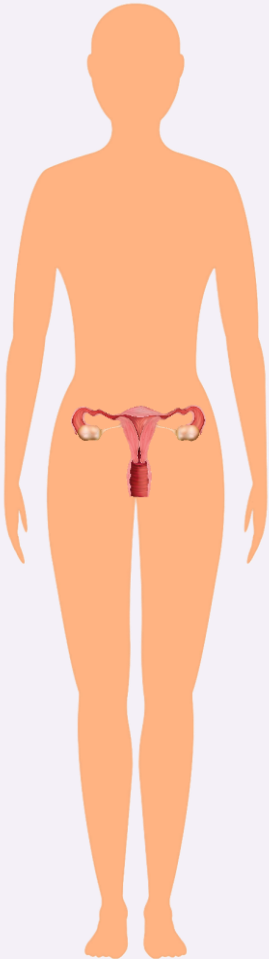
female sex cells that
develop in the ovaries

Sperm and egg cells are produced in the reproductive system.

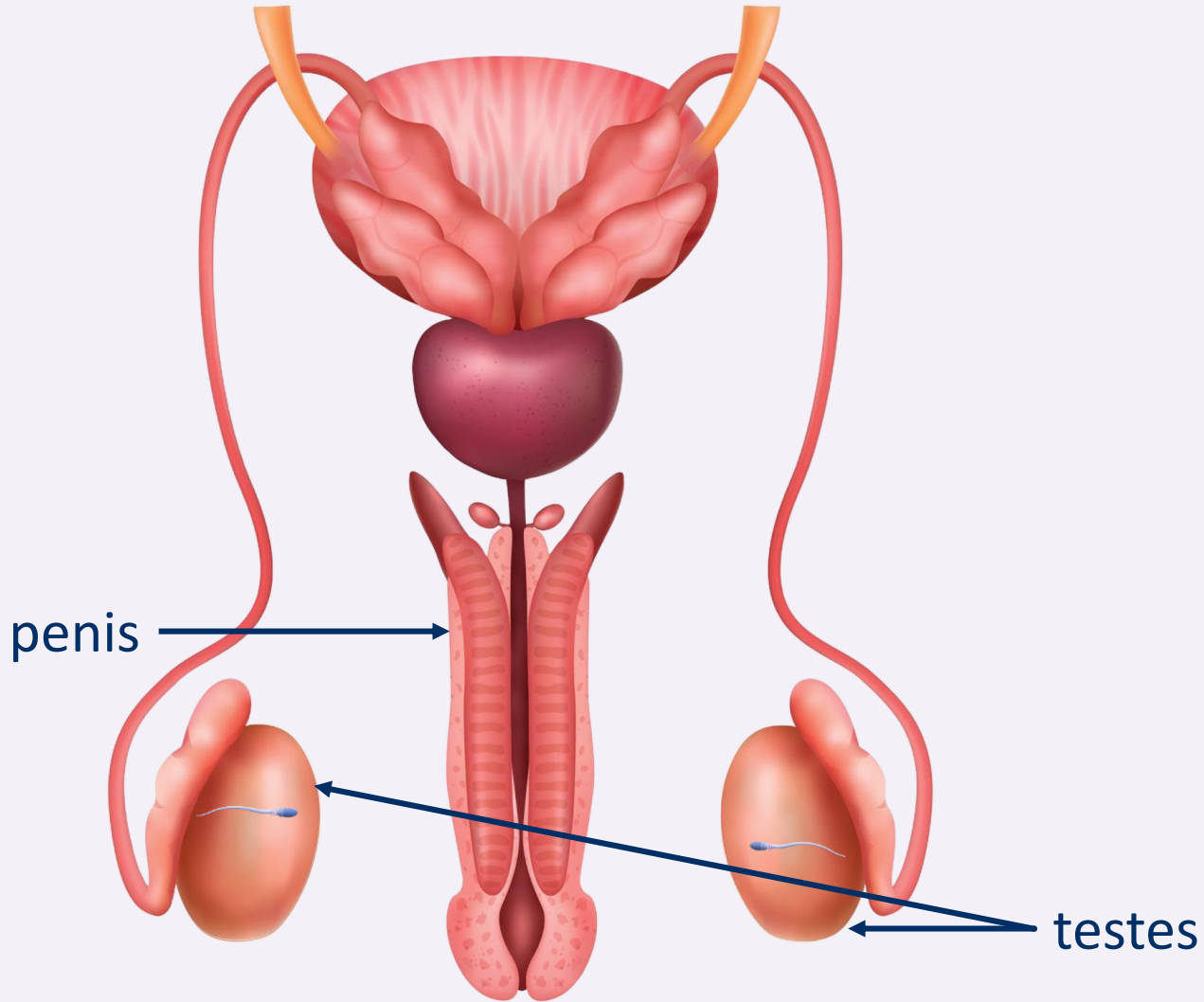
male



female

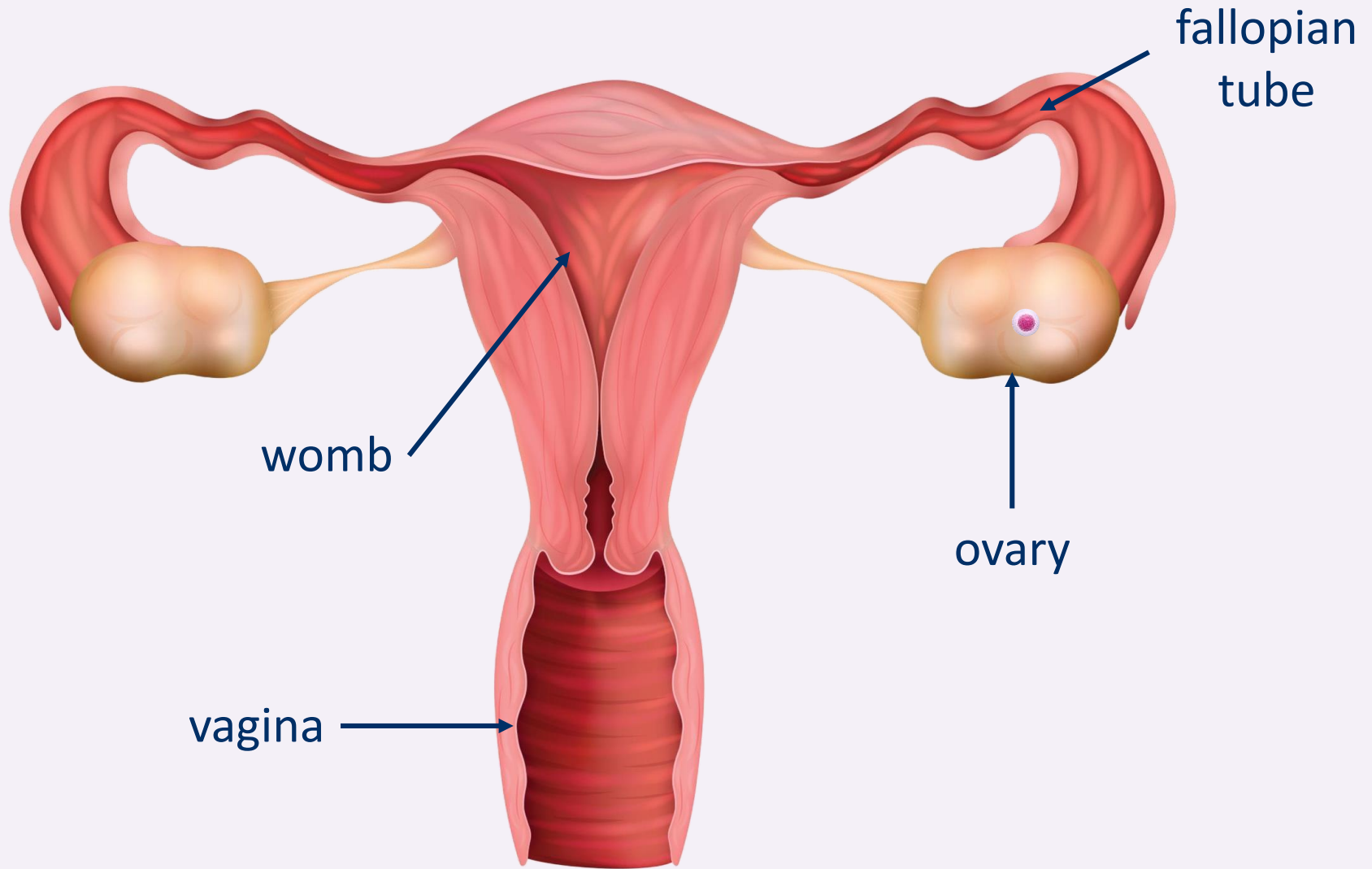


This is the male reproductive system.



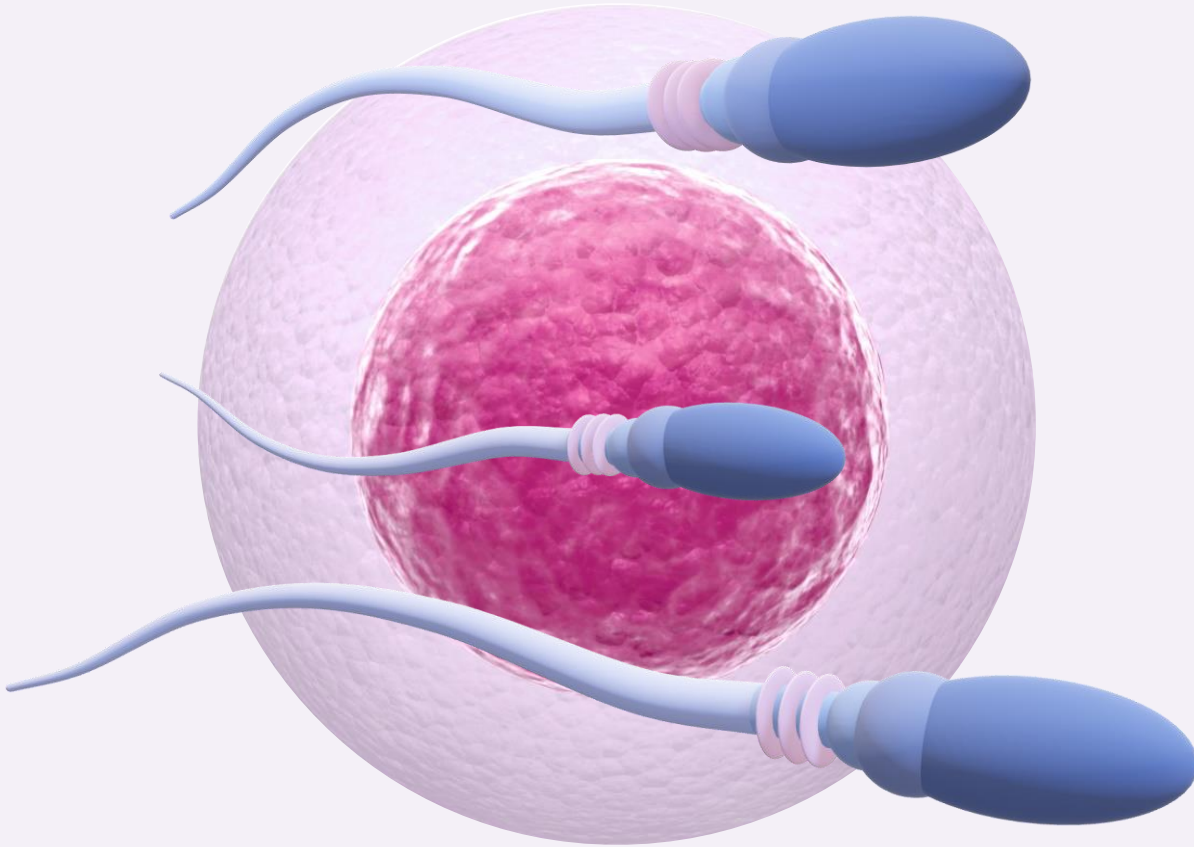
Sperm cells are produced in the testes.

This is the female reproductive system.



Approximately every 28 days, an egg is released from the ovaries.

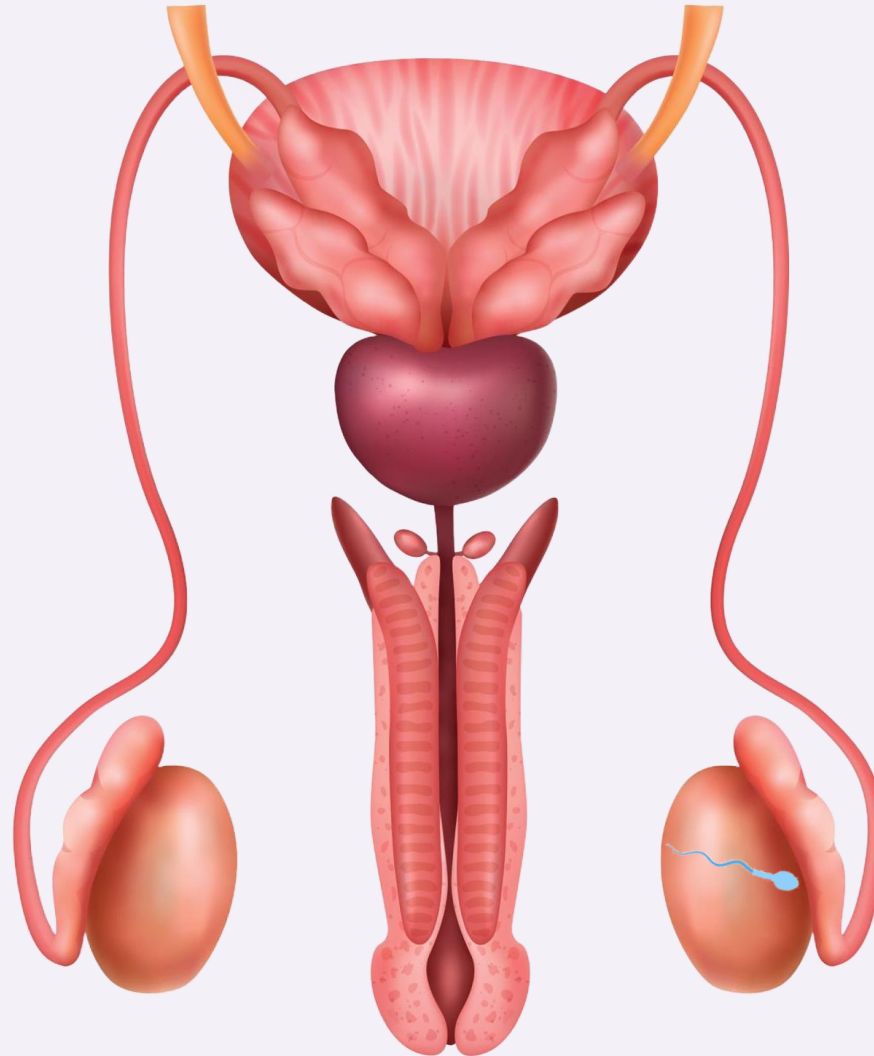
Is this part of the male or female reproductive system?



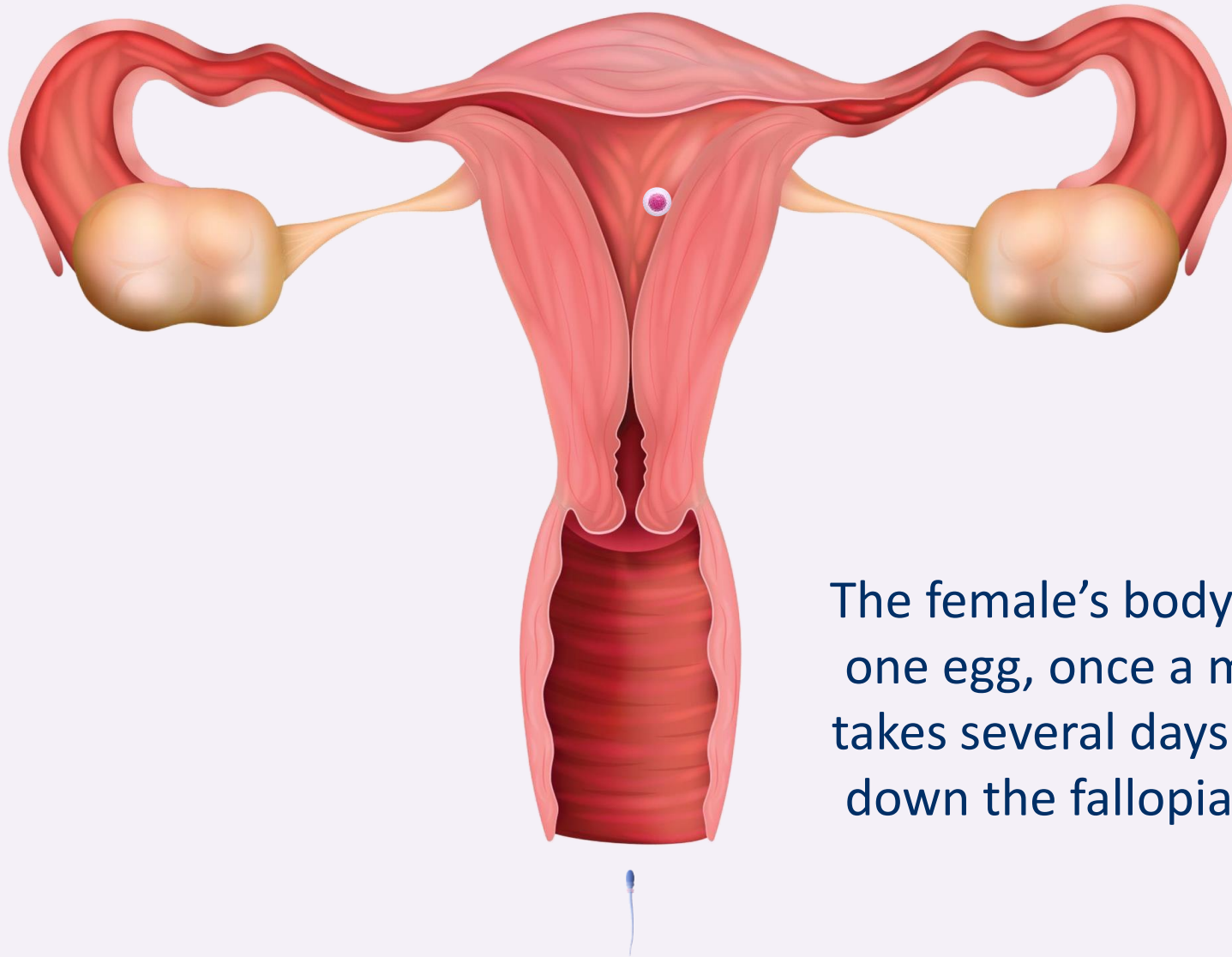
female



If a male and a female want to conceive a baby, they have sexual intercourse. During sexual reproduction, sperm cells leave the testes.



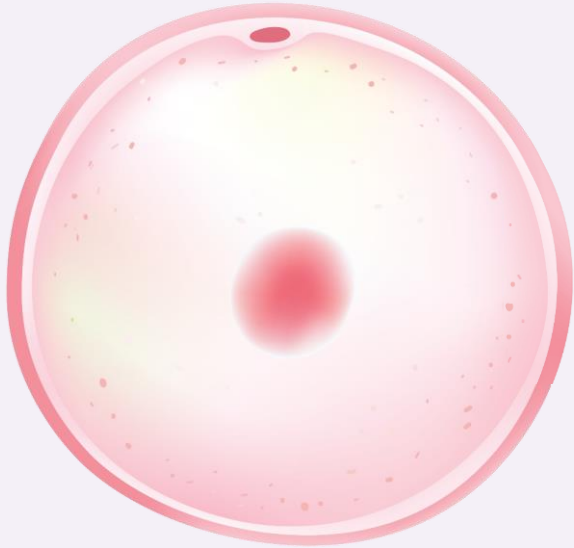
The male's penis ejaculates allowing sperm cells enter the vagina and swim towards an egg cell.



The female's body releases one egg, once a month. It takes several days to travel down the fallopian tubes.

The **egg cell** only lives for 12-24 hours but the **sperm cells** can live for 5-7 days. **Sperm cells** swim towards the **egg cell**.

One **sperm cell** joins with the **egg cell**.



This is known as **fertilisation** and the start of a new life form.

Contraception

If the couple do not want to conceive a baby, they can use contraception, such as a condom, to stop the sperm reaching the egg.

Other types of contraception include, the contraceptive pill and injection but there are others which can be used depending on what suits each individual best.



From Conception to Birth



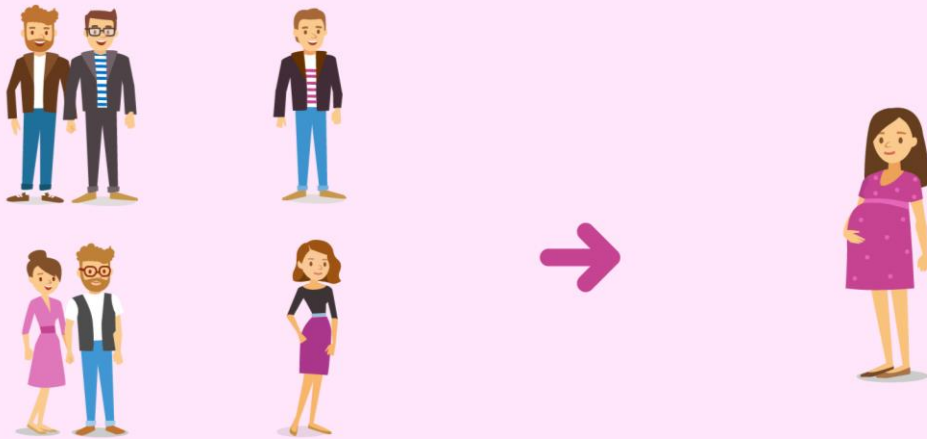
Some couples conceive a baby differently.

Same-sex couples and some heterosexual couples are not able to conceive a baby in this way.

Doctors can remove a female's eggs from her body and the eggs can be fertilised with sperm outside of the body.

Once an embryo has formed, the doctors can place it back inside the female's uterus so she can continue the pregnancy until the baby is ready to be born.

From Conception to Birth



Intended parents

Surrogate

Some females have a problem with their uterus and may not be able to carry a baby inside them. In this case, they may use something called surrogacy.

Eggs from Intended Parent
(or Donor Eggs)



Sperm from Intended Parent
(or Donor Sperm)



Embryo is created via IVF



Embryo is being transferred into the surrogate



The Surrogate's journey begins



The egg is fertilised by the sperm outside of the female's body and once an embryo has formed, it is placed inside the body of another female who has agreed to carry the baby inside her until it's ready to be born. It is often a sister or close friend of the couple who does this for them.

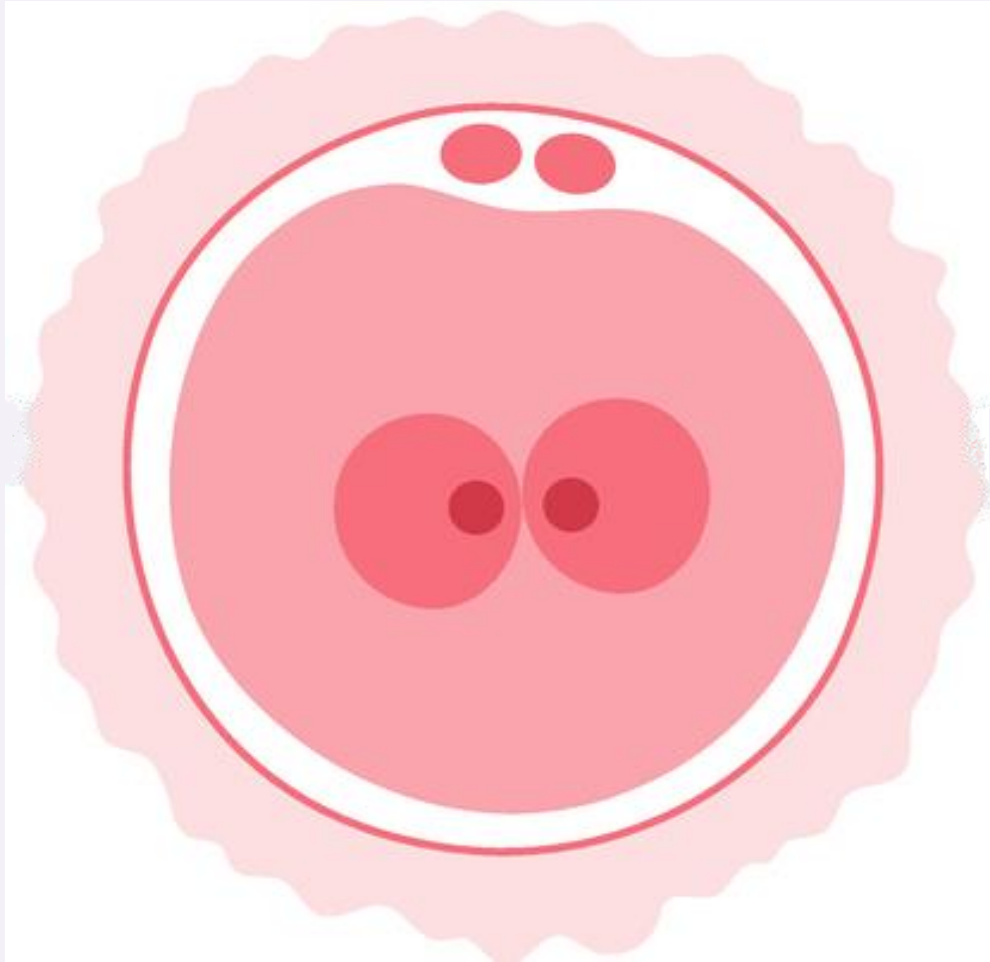
From Conception to Birth



Let's take a closer look at the whole journey from conception to birth. This video shows the most common type of conception, when a male's sperm fertilises the egg inside the female's body.

Watch the video carefully and feel free to jot down any questions you have about the development of the foetus (this is what the baby is called before it is born).

After fertilisation, the cells change and grow.

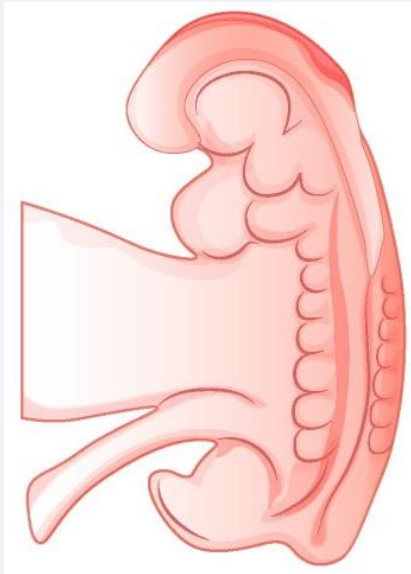
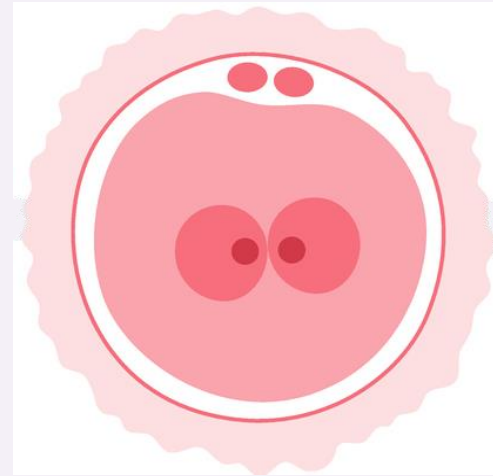
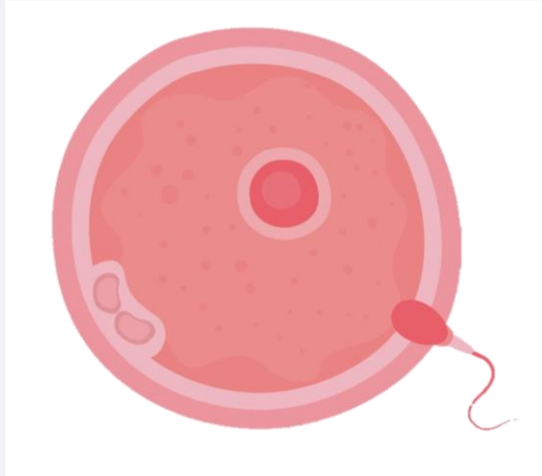


At 7 and 8 weeks, the embryo has changed a lot.



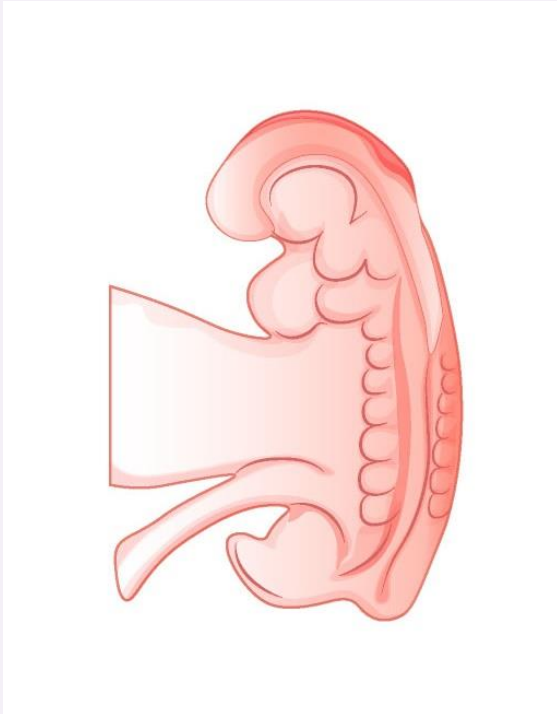
week 3

From just two cells (a sperm and an egg) to 37.2 trillion cells in a human being!



The rate of growth is extremely rapid. The egg cell measures 0.12mm in diameter and a newborn baby is approximately 50cm.

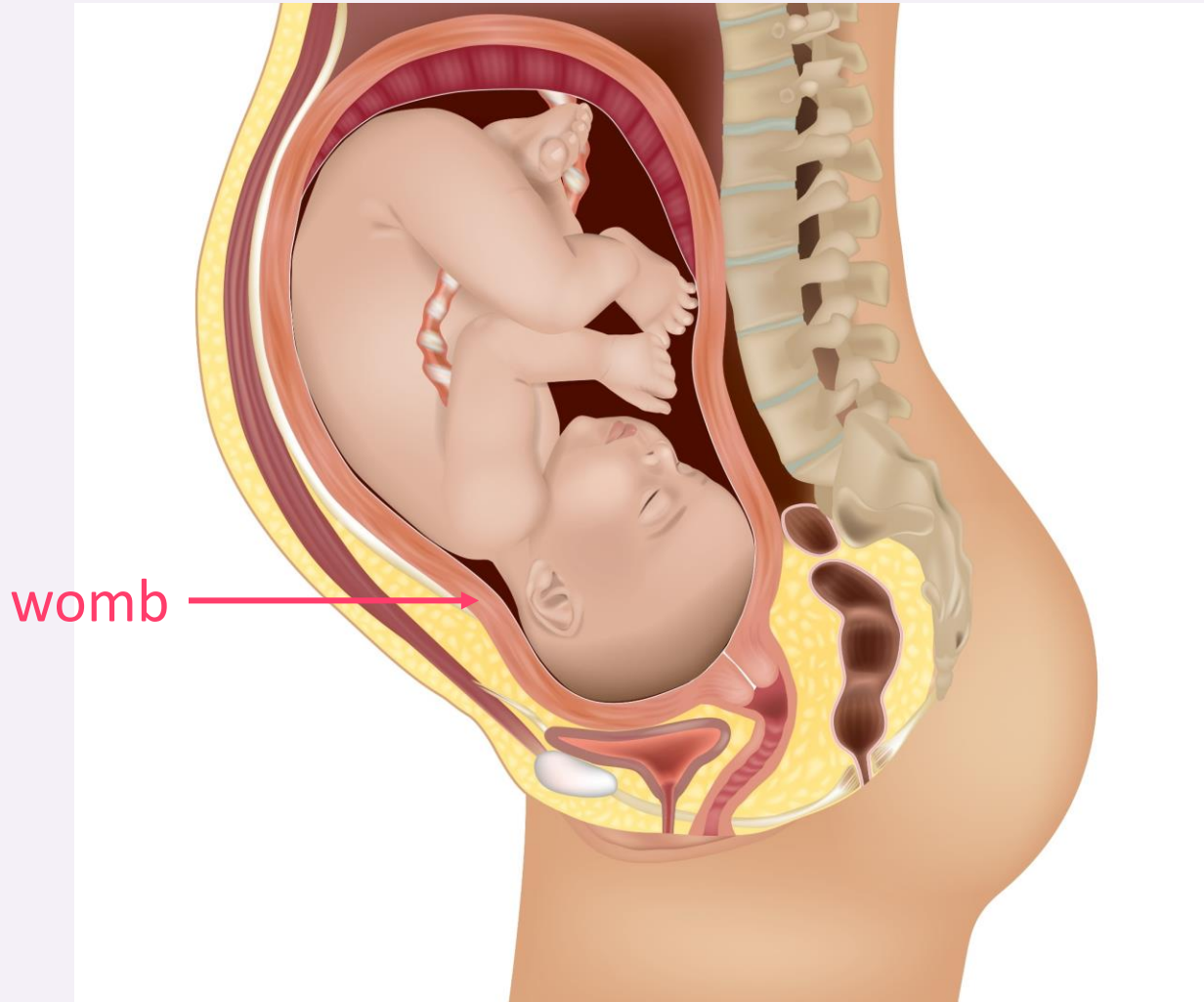
What are the differences between an **embryo** and a foetus?



a foetus has arms, legs and facial features
a foetus is larger



Where does the foetus grow inside a mammal?

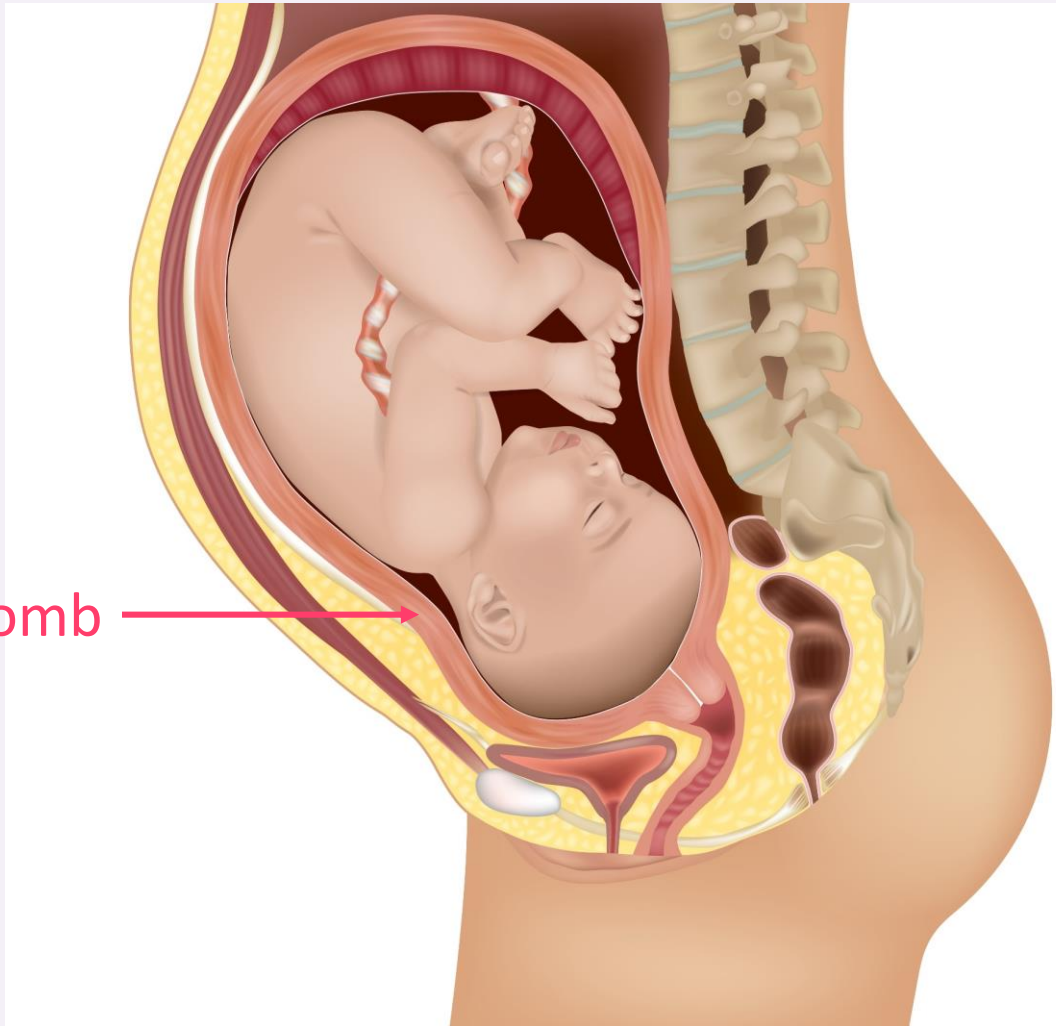


womb

inside the womb



What does a foetus need?

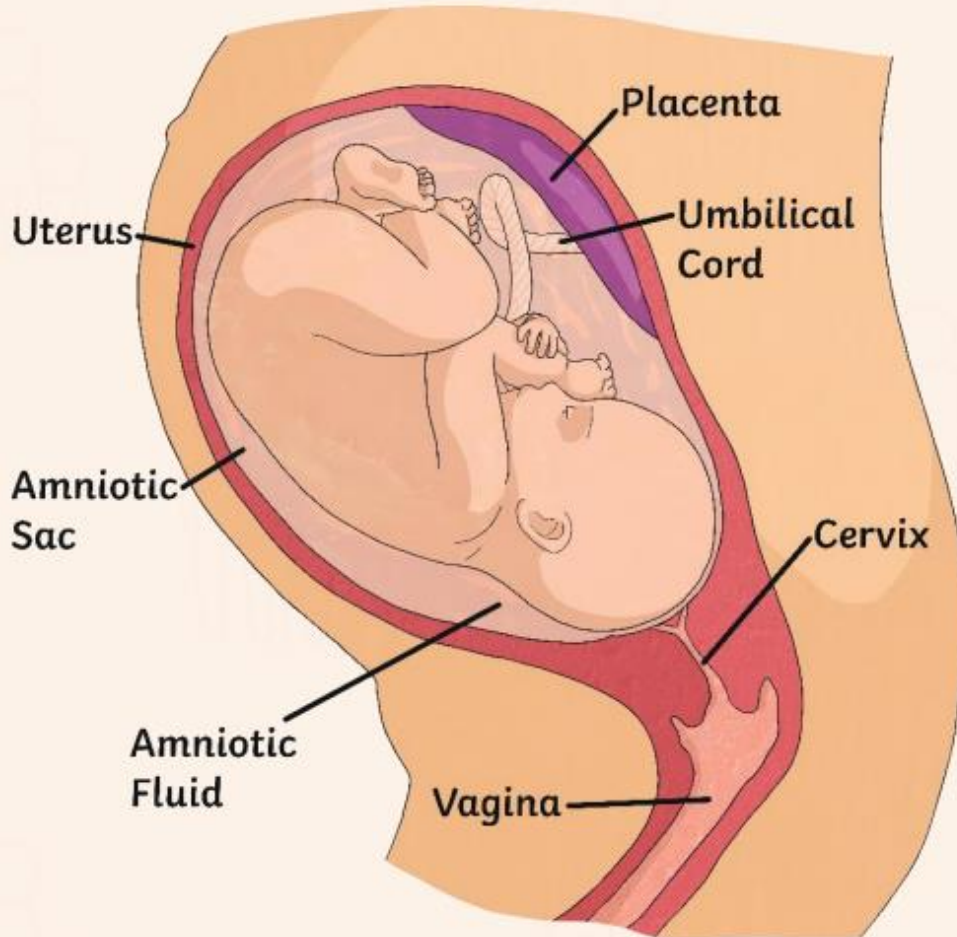


womb

The mother's body knows exactly what to do and when to do it, as well as knowing how to provide the foetus with everything it needs to develop and grow.

- Oxygen
- Minerals
- Fats
- Vitamins
- Protection
- Protein

What does a foetus need?



In the uterus, the foetus is protected inside an amniotic sac, which is filled with amniotic fluid. All the nutrients that the foetus needs while it is inside the womb (or uterus) are passed from the mother's body to the foetus. The mother's body creates a placenta. Nutrients and oxygen pass from the placenta to the baby through the umbilical cord.

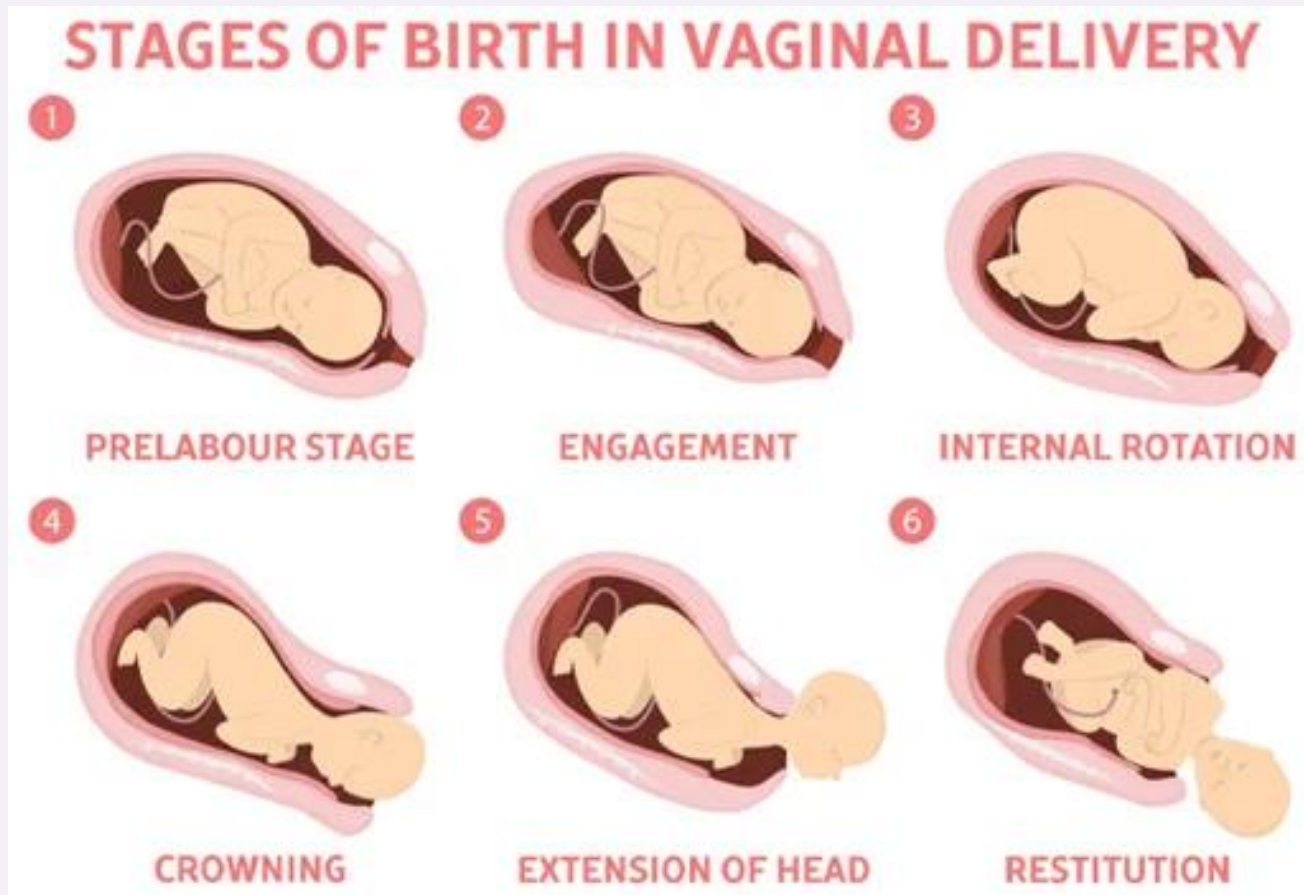
The umbilical cord also carries waste substances, such as carbon dioxide, away from the baby to the placenta.

After gestation, females give birth to live young.



The life cycle of these mammals then starts again.
But how is the baby born?

How is a baby is born?



- For humans, after nine months of growing inside its mother, the baby is ready to be born.
- The pains caused by the muscles of the uterus pushing are called 'contractions'. As muscles in the uterus push the baby out, this is called labour.
- The baby comes out (usually head first) from the mother's vagina by first travelling through the birth canal.

How is a baby is born?



- Some babies are born through a caesarean section (or C-section for short).
- This is when the baby cannot be delivered through the vagina. For example, the baby may need to be delivered through a breech birth (meaning it is feet first in the womb rather than head first, ready to be born).
- In a C-section, an incision is made through the woman's tummy and into her womb. It is a common operation and is safe for both the mother and the baby.

Questions

- Now is the time to write down any questions that you may have.
- To save people feeling it's obvious they've asked something we want everyone to write something even if its just 'I don't have any questions'. This helps people feel comfortable and stay anonymous.
- We will collect your questions and read through them.
- If we cannot answer we won't read it out and recommend that you speak to a trusted adult (parent/carer) at home about your question.
- However, we will do our best to answer all of your questions.

