

Exercise walk-through

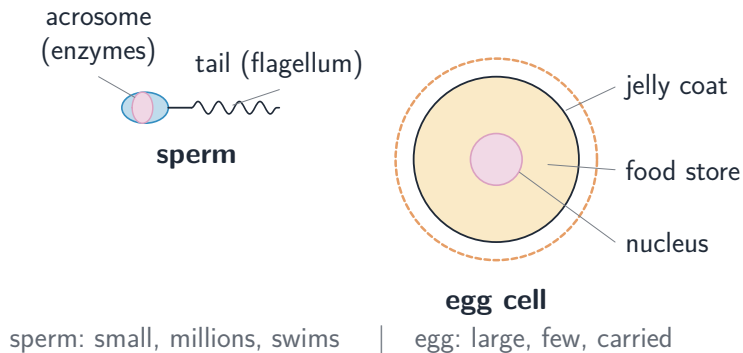
Sexual reproduction in humans ■ 16.4

eXercise

You must be able to

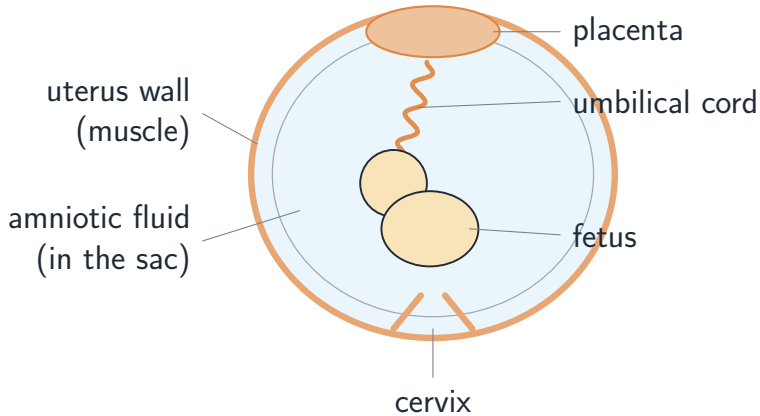
- compare the sperm and egg cell and their adaptations
- state where fertilisation happens
- describe the roles of the placenta, umbilical cord and amniotic sac

Method — Gametes and pregnancy



A sperm and an egg cell

Method — Gametes and pregnancy



A fetus with placenta, cord and amniotic sac

Practice 2.1 ■ 1 mark

State where fertilisation occurs in a human.

Solution 2.1

Worked steps

in the oviduct **B1**.

Practice 2.2 ■ 1 mark

State the role of the amniotic fluid.

Solution 2.2

Method: Gametes and pregnancy

Worked steps

it cushions/protects the fetus **B1**.

Exam-style 3.1 ■ 1 mark

The egg cell, compared with a sperm cell, is:

- A** smaller and able to swim
- B** larger and stores food
- C** present in millions
- D** has a flagellum

Solution 3.1

Method: Gametes and pregnancy

A smaller and able to swim

B larger and stores food



C present in millions

D has a flagellum

Worked steps

B. The egg is larger and stores food.

Exam-style 3.2 ■ 2 marks

The placenta supports the developing fetus.

- (a) State two substances that pass from the mother's blood to the fetus.
- (b) State one feature of the sperm cell and how it helps.

Solution 3.2

Method: Gametes and pregnancy

Worked steps

(a) any two of: oxygen; glucose; (dissolved) nutrients **B1** **B1**.

(b) e.g. a flagellum/tail **M1** lets the sperm swim to the egg **A1**; or many mitochondria for energy.