

OCR (A) Biology GCSE

B3.2 - The endocrine system

Flashcards



What are hormones?



What are hormones?

Hormones are chemical messengers that are secreted by glands of the endocrine system into the bloodstream



What are the target cells?



What are the target cells?

Target cells are cells with the specific receptor for a hormone that produce an effect when the hormone binds



What does the hormone thyroxine control in the body? (Higher)



What does the hormone thyroxine control in the body? (Higher)

Thyroxine controls metabolic rate



Describe thyroxine as a negative
feedback system (**Higher**)



Describe thyroxine as a negative feedback system (Higher)

- When the level of thyroxine decreases the pituitary gland produces thyroid stimulating hormone (TSH) which causes the thyroid gland to produce more thyroxine
- When the level of thyroxine increases, the pituitary gland produces less TSH



When is adrenaline secreted? (Higher)



When is adrenaline secreted? (Higher)

During times of anxiety, fear or stress



Give 3 effects of adrenaline in the body
(Higher)



Give 3 effects of adrenaline in the body (Higher)

- Increases heart and breathing rate
- Increases blood glucose concentration
- Dilates the pupils



What does oestrogen do?



What does oestrogen do?

Oestrogen causes the uterus lining to thicken



What hormone does oestrogen inhibit?
(Higher)



What hormone does oestrogen inhibit? (Higher)

Oestrogen inhibits follicle stimulating hormone (FSH)



What does progesterone do?



What does progesterone do?

Progesterone maintains the womb lining



What hormone does progesterone
inhibit? (Higher)



What hormone does progesterone inhibit? (Higher)

Progesterone inhibits follicle stimulating hormone (FSH)



What does follicle stimulating hormone (FSH) do?



What does follicle stimulating hormone (FSH) do?

FSH stimulates the follicle to mature and release oestrogen



What does luteinising hormone (LH) do?



What does luteinising hormone (LH) do?

A surge in LH causes the release of an egg from a follicle (ovulation)



How do oestrogen pills work to prevent pregnancy?



How do oestrogen pills work to prevent pregnancy?

Oestrogen pills inhibit FSH which stops the egg from maturing



How do progesterone pills work to prevent pregnancy?



How do progesterone pills work to prevent pregnancy?

Progesterone pills cause a sticky mucus to form at the cervix which prevents the sperm from fertilising the egg



Give one advantage and one disadvantage of hormonal contraception (e.g. the pill)



Give one advantage and one disadvantage of hormonal contraception (e.g. the pill)

Advantage - More than 99% effective

Disadvantage - It can cause side effects like weight gain



Give one advantage and one disadvantage of condoms as non-hormonal contraception



Give one advantage and one disadvantage of condoms as non-hormonal contraception

Advantage - 98% effective and prevents from sexually transmitted diseases

Disadvantage - Condoms are only one time use and they can break



Describe how IVF is carried out (Higher)



Describe how IVF is carried out (Higher)

- The mother is given FSH
- Sperm from the father and eggs from the mother are collected
- The egg is fertilised in a laboratory and allowed to develop into an embryo
- The embryo is then put into the mother's uterus



What hormone is given in female fertility drugs? (Higher)



What hormone is given in female fertility drugs?

(Higher)

Follicle stimulating hormone (FSH)



What does auxin trigger?



What does auxin trigger?

Auxin triggers growth of the main stem of the plant (and it inhibits the growth of side shoots)



What is phototropism and which part of a plant is positively phototropic?



What is phototropism and which part of a plant is positively phototropic?

Phototropism is the growth of a plant towards a light source. The shoots are positively phototropic (they grow towards the light source)



What is geotropism and which part of a plant is positively geotropic?



What is geotropism and which part of a plant is positively geotropic?

Geotropism is the growth of a plant towards the pull of gravity. The roots are positively geotropic (they grow down in the same direction as the pull of gravity)



How does auxin cause the shoots to grow towards the light source?



How does auxin cause the shoots to grow towards the light source?

- Auxin collects on the shaded side
- Auxin promotes cell growth
- The shoot curves towards the light



What do gibberellins do? (Higher)



What do gibberellins do? (Higher)

- Promote seed germination
- Increase the length between stem nodes
- Delays leaf shedding



What does ethene cause when it is applied to plants? (Higher)



What does ethene cause when it is applied to plants? (**Higher**)

It causes fruit ripening which is useful so that fruit can be transported long distances



How do selective weedkillers work? (Higher)



How do selective weedkillers work? (Higher)

- They contain auxin
- They work on some plants (weeds) and not others
- They cause the plant to grow too quickly which kills it



What are parthenocarpic fruit? (Higher)



What are parthenocarpic fruit? (Higher)

Seedless fruit

