

B7: Animal coordination, control and homeostasis

1. Hormones

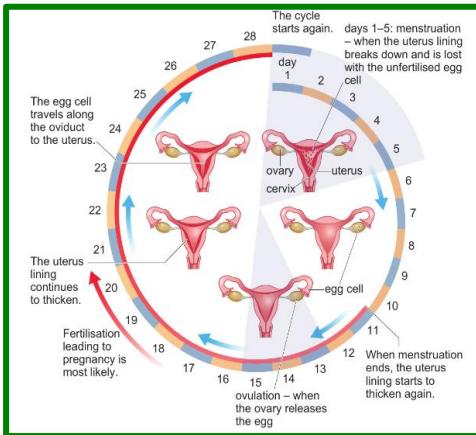
Hormone	A chemical messenger that changes the way a part of the body works.
Target Organ	Part of the body affected by a hormone/hormones.

2. Hormonal Control of Metabolic Rate

Metabolic Rate	The rate at which the body uses the energy stored in food.
Thyroxine	Role: To control your metabolic rate.
Adrenaline	Role: To prepare the body for fight or flight

3. Menstrual Cycle

Menstrual Cycle	An average of 28 day cycle that prepares a woman's body for pregnancy.
Ovulation	The release of an egg cell by an ovary
Fertilisation	When the nuclei of a sperm cell fuses with the nuclei of an egg cell to form a zygote.



4. Hormones and the menstrual cycle

Egg Follicle	A layer of tissue surrounding each of the immature eggs in the ovaries.
Oestrogen	Causes the release of FSH and the thickening of the uterus lining. High oestrogen levels cause LH release.
FSH	Causes one follicle to develop and mature the egg cell within it.
LH	Causes ovulation when the egg is released from the follicle.

Progesterone	Maintains the thickness of the uterus lining, inhibits FSH release. Falling levels trigger ovulation.
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In vitro fertilisation (IVF)	Sperm is extracted from a man, and eggs from a woman. The eggs are fertilised in a laboratory and one or more is placed into the uterus.
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Homeostasis	Maintaining constant conditions in the body, such as temperature or blood glucose concentration.
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Blood Glucose Concentration	The concentration (amount) of glucose in the blood. Both too high and too low are dangerous.
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Glycogen	A stored form of glucose made by joining glucose molecules together in long chains.
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Insulin	Role: To reduce blood glucose concentration Endocrine gland: Pancreas Target organ: Liver and muscles which convert glucose into glycogen.
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Glucagon	Role: To increase blood glucose concentration Endocrine gland: Pancreas Target organ: Liver and muscles which convert glycogen back into glucose.
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Diabetes	A disease in which the body cannot quickly reduce blood glucose concentrations after eating.
Type 1 Diabetes	Diabetes caused when a person's pancreas can't produce insulin. Treat with insulin injections
Type 2 Diabetes	Diabetes caused when a person becomes insulin resistant . Treat with controlled diet, exercise or medication

