

★ **HIGHER TIER ONLY** content is highlighted in blue. Foundation students — focus on the un-highlighted sections.

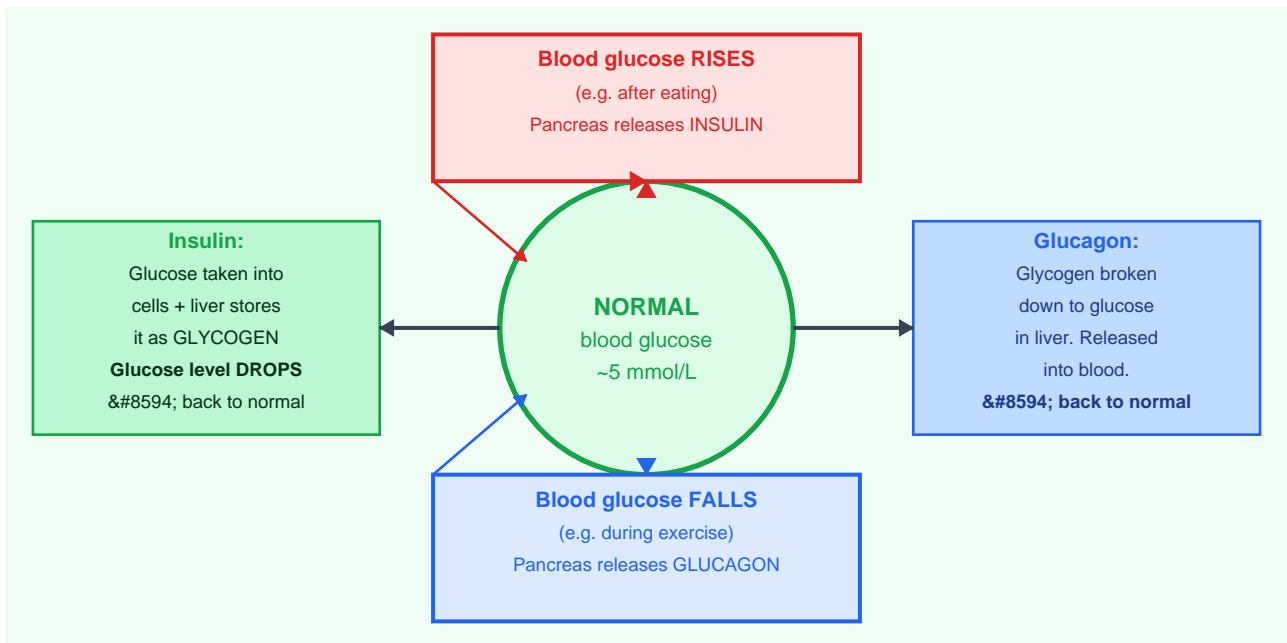


Fig: Negative feedback control of blood glucose — the pancreas acts as the control centre

Thermoregulation

Situation	Response	Effect
Too HOT	Sweating, vasodilation (blood vessels widen), hairs lie flat	Use more heat — body cools down
Too COLD	Shivering, vasoconstriction (blood vessels narrow), hairs stand up	Generate heat, retain heat

■ **Exam Tip:** Negative feedback: the response OPPOSES the change to restore normal. Blood glucose too high? Insulin lowers it. Too low? Glucagon raises it.