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	INSULIN OR GLUCAGON?	to referse insulin into the blood.
		Liver bases and dones it as giving the second secon
	INSULIN	1. STRAULUS: Elitory discose level Fising block glucose et expani- level (for Instance, and en enter the set of particular discose et elitoria enter the set of traulit relevance diministrates.
_	- released when blood glucase levels are high	- Homenstein
	- increases the rate of glucose uptake and cell metabolism	Blood placese level (about 90 mg100 mL)
	- effects : hypoglycaemia	Blood glucose level ties is set path release diminishes. Status of the set
	GLUCAGON :	Apple etter of reference
	- released when blood glucose levels are too low	Live hash
	- Stimulates liver to release glucose to blood, therefore mine sin bo	od giucase levels
	- effects: hyperglycaemia	
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	DIABETES MELLITUS :	

disorder of Carb metabolism in which sugars in the bady are <u>not oxidised</u> to produce energy due to a lack of insulin or the body develops resistance to it

it is estimated to affect 537 million people worldwide (IDF Diabetes Atlas 2021)

we are often the 1st practitioners to become aware of the disease in patients PANCREAS ANATOMY:

INSULIN SECRETION:

secreted by pancreatic B-Cells in response to rising glucose levels

GLUT2 : 1 glucase uptake = glycolytic phosphorylation = 1 of ATP: ADP ratio

this rise inactivates K^+ channel that depolarises the membrane, \therefore Ca⁺ channel opens and Ca⁺ ions flow in the rise in Ca⁺ ions leads to exocytotic release of insulin from the storage granule

HOW INSULIN WORKS:

insulin binds to receptor

this induces a signal transduction cascade

this allows glucose transporter to transport glucose into the cell

most of the cells in our body carry insulin receptors in their membranes - once bound to one of these receptors,

the cell recieves a signal to begin enzyme controlled reactions: these change the metabolism of the cell

the binding process leads to I glucose uptake of the cell

Exceptions: brain and liver because these cells are readily permeable to glucose