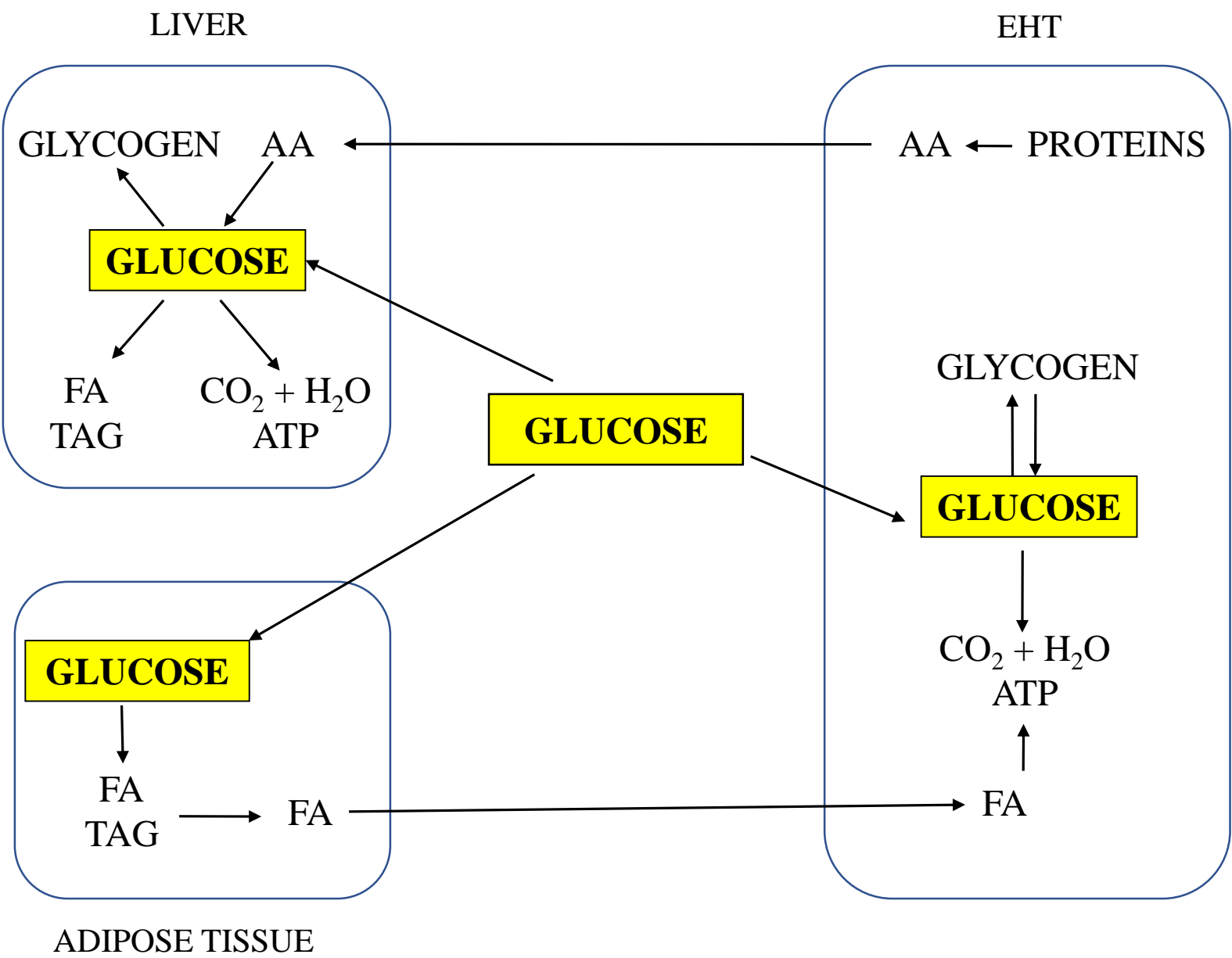


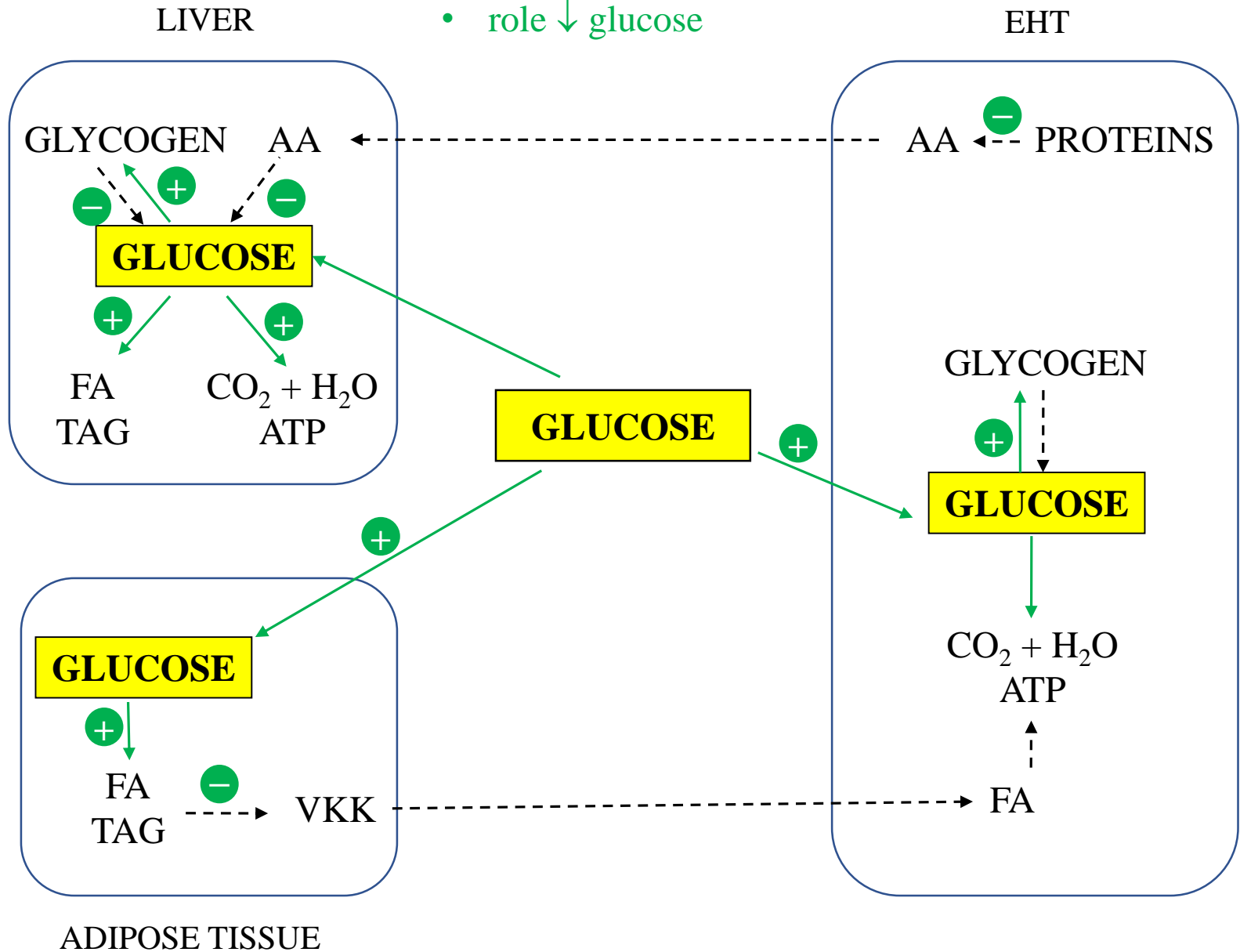
Regulation of glycemia

6th week



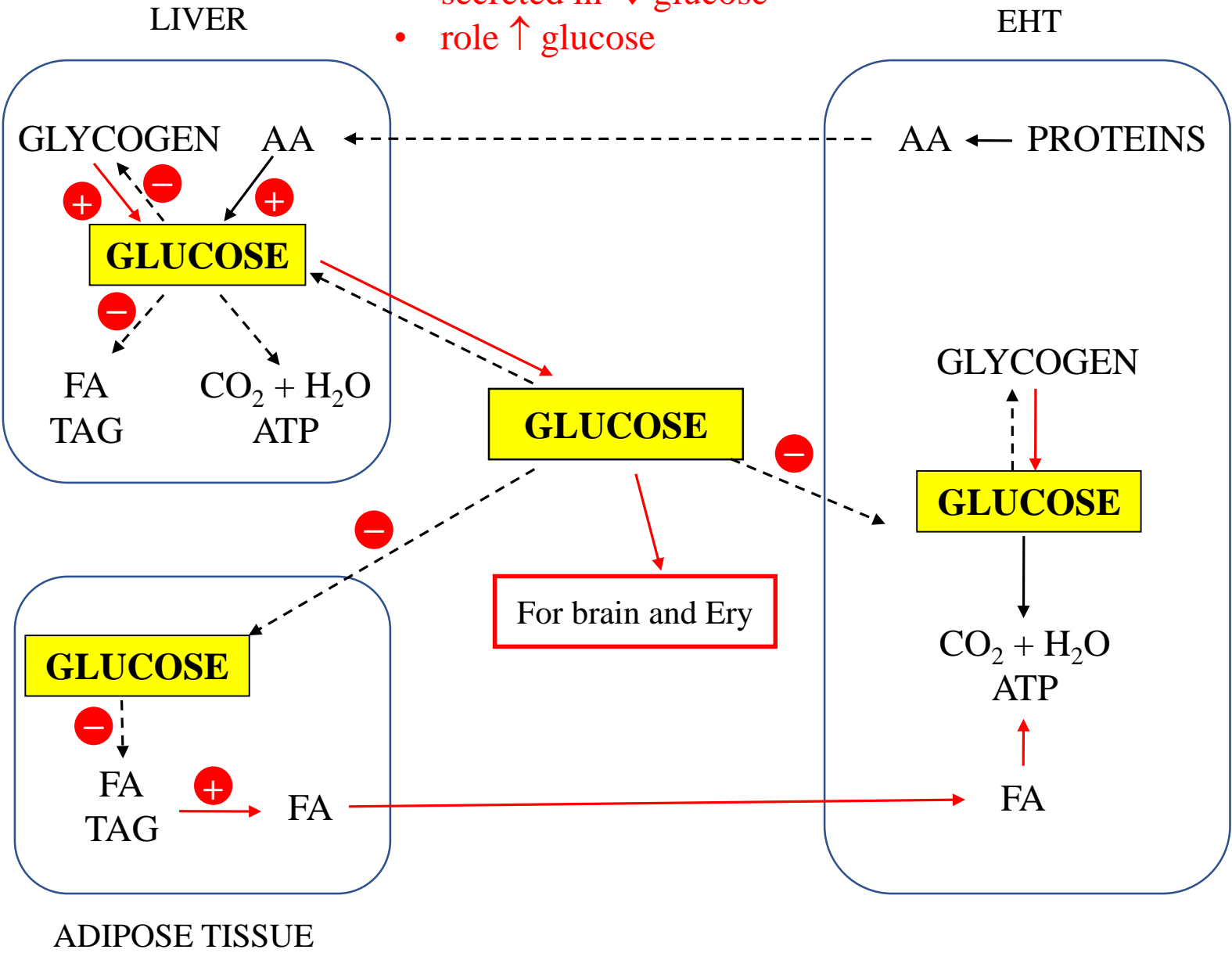
INSULIN

- secreted in \uparrow glucose
- role \downarrow glucose



GLUCAGON

- secreted in ↓ glucose
- role ↑ glucose



LIVER

EHT

GLYCOGEN AA

GLUCOSE

FA TAG CO₂ + H₂O
ATP

AA ← PROTEINS

GLYCOGEN

GLUCOSE

CO₂ + H₂O
ATP

FA

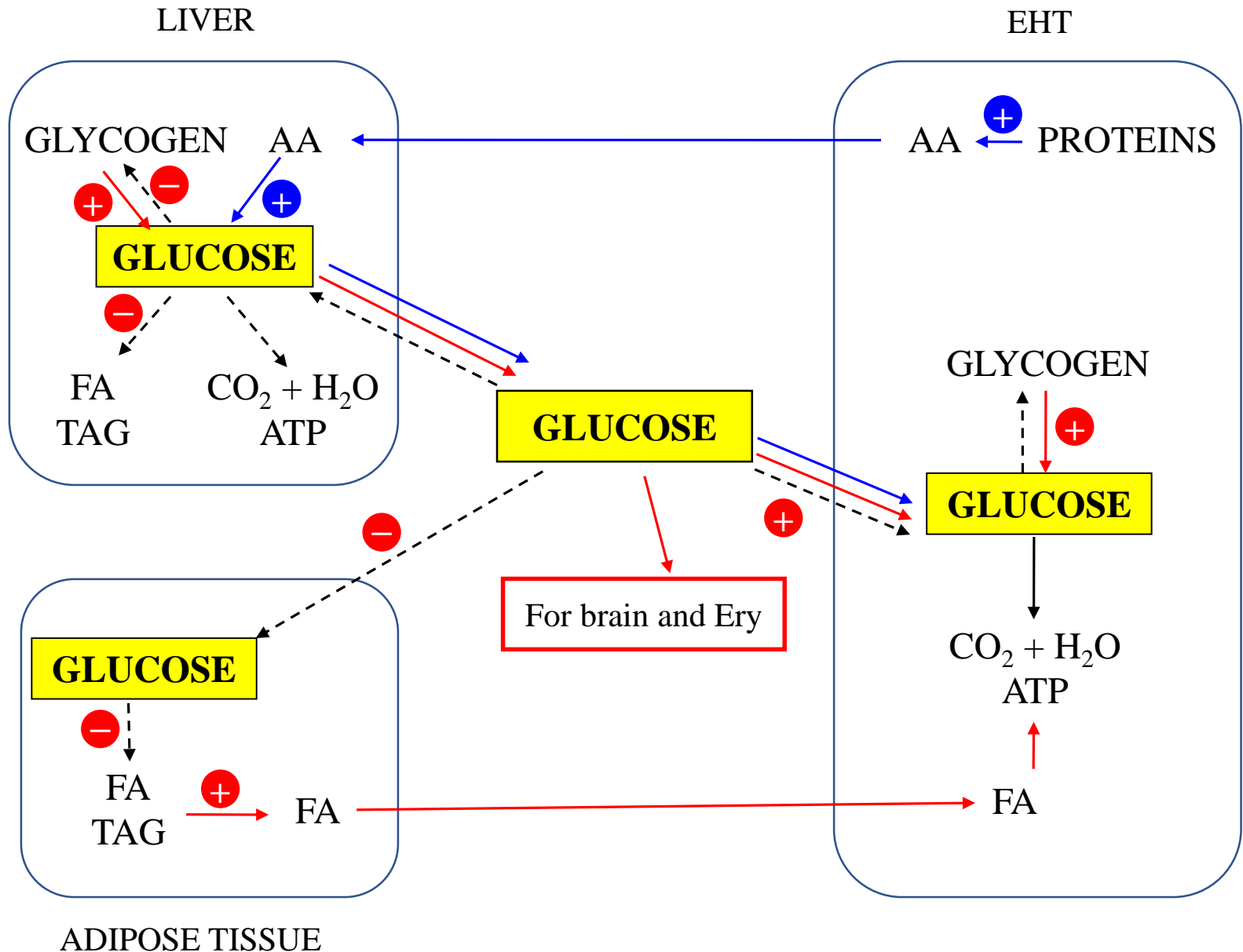
GLUCOSE

FA TAG FA

For brain and Ery

ADIPOSE TISSUE

STRES – ADRENALIN + GLUCOCORTICIDS



DIABETES MELLITUS

TYPE 1 (IDDM)

- insulin-dependent DM (juvenile type)
- absolute lack of insulin
- treatment = insulin

TYPE 2 (NIDDM)

- non-insulin-dependent DM (adult onset type)
- not sufficient production of insulin, insulin resistance
- treatment = diet, peroral antidiabetics

SIGNS AND SYMPTOMS

- polyuria (frequent urination)
- polydipsia (increased thirst)
- polyphagia (increased hunger)
- usually in IDDM - diabetic ketoacidosis
- rarer – common for NIDDM - possibility is hyperosmolar nonketotic state, which is mainly the result of dehydration.