absorption
exogenous insulin administration
- SC
- IV infusion or IM during emergency
- insulin supplied in vials, pre-packed cartridge pens, portable pumps
- short-acting insulin 30 mins before meals
- mixing insulin preparations
- storing insulin preparations

dosing through IV
- basal-bolous
  - lasts 1 hour
- split-mixed

distributed around the body
metabolised in liver
if excess then excreted

pharmacological effects
- uptake, utilisation and storage of glucose, amino acids and fats after a meal
- decrease formation of glucose from other sources
  - decrease blood glucose levels

adverse effects
- allergic reactions
- lipodystrophy
- overdose causes hypoglycaemia

drug interactions
- insulin requirements may be increased by meds with hyperglycaemic activity

e.g corticosteroids
- insulin requirements may be decreased by meds with hyperglycaemic activity

e.g beta-blocker

drug abuse in diabetic patients
- alcohol
- CNS stimulants
- marijuana
- cigarettes

oral hypoglycaemic drugs
types
- biguanides e.g metformin
  - alters energy metabolism of the cell
  - inhibits hepatic gluconeogenesis and opposes glucagon action
  - increases glucose uptake from blood and glucose utilisation by cells
  - decreases glucose absorption and hepatic glucose production
  - reduces LDLs
  - preferred drug in overweight patients
- sulphonylureas e.g glipizide
  - sitmulates insulin secretion
  - inhibits the liver producing glucose
  - improve body sensitivity to insulin
- thiazolindinediones
  - improve sensitivity to insulin
- meglitinides
  - stimulates insulin secretion