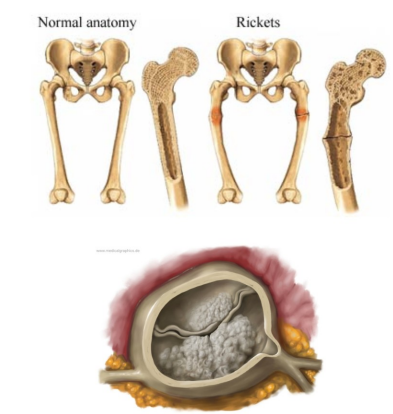
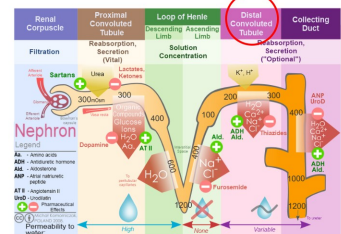
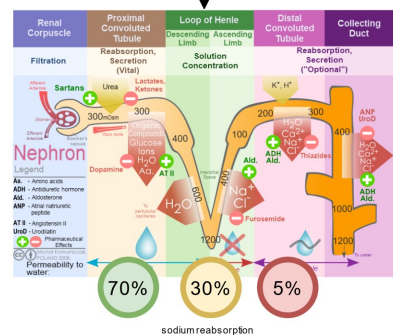


Osteopathies

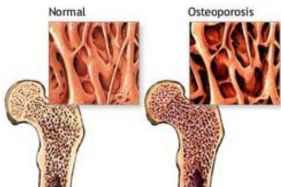
osteoporosis

systemic skeletal disorder characterised by **low bone mass**

Primary (senile or post-menopausal) or **secondary** (sporadic factors)

↓Ca, ↓Vit.D, alcohol, smoking, sedentary lifestyle, caffeine, ↓estrogens

vertebral fractures and deformities



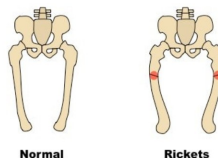
ADAM

rickets and osteomalacia

softening of the bones caused by impaired bone metabolism
↓mass ↓volume

inadequate levels of available P, Ca, and Vit.D, or because of resorption of calcium

bone pain, muscle fatigue, crushing of the spine and bone fractures



Example of Rickets

Paget's disease

accelerated, but defective, **bone tissue turnover**

Phases

lytic: bone resorption
↑osteoclasts ↑vascularisation

mixed: bone remodelling
↑osteoclasts ↑osteoblasts

osteoclerotic: ↓replacement,
↓osteoclasts ↓osteoblasts
↓vascularisation

no symptoms, if any it is bone pain (specific or generalised)

rapid remodelling creates **new bones softer and weaker** than normal bones

Osteomyelitis

infection that usually causes pain in the long bones in the legs

related with *S.aureus* in the majority of cases

pain and lump in the bone, redness of the area, fever, possible pus



Bone tumours

benign: osteochondroma, chondroma and osteoma.

cells from **normal** tissue, grow **slowly** and do **not invade** neighbouring structures

malignant: osteosarcoma, ewing's sarcoma, chondrosarcoma.

cells **different** from normal tissue, grow **rapidly**, **invade** structures and can **metastasise**.

