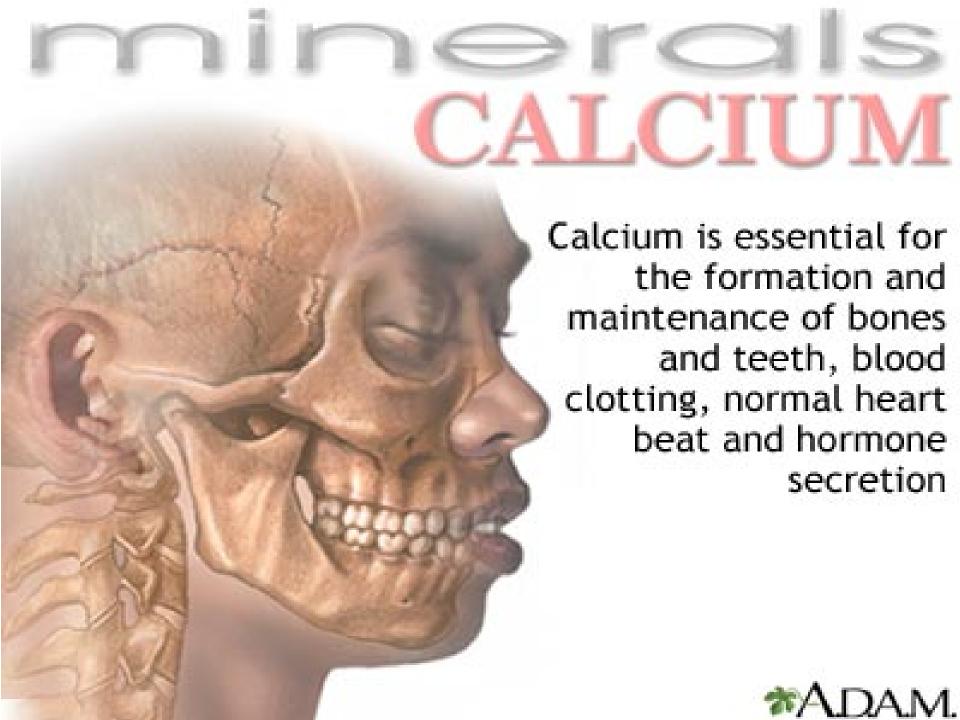


### Calcium in blood

Assist.Lecturer Aseel Ghassan Daoud M.Sc. in Pharmacy/clinical laboratory sciences



# Factors that determine the amount of calcium in the body:

- Calcium you get in your food.
- Calcium and vitamin D your intestine absorb.
- Phosphate in the body.
- Certain hormones including parathyroid hormone, calcitonin and estrogen in the body.

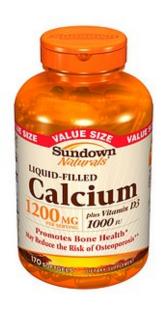
### Viva! Calcium-rich foods



www.viva.org.uk



## Calcium supplements

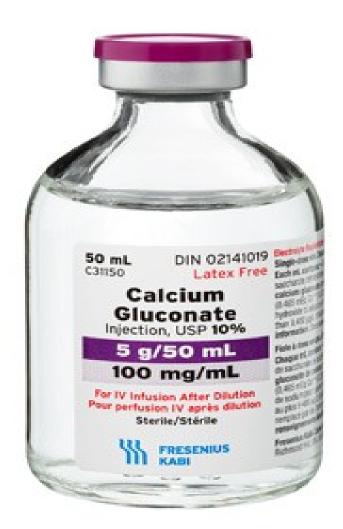








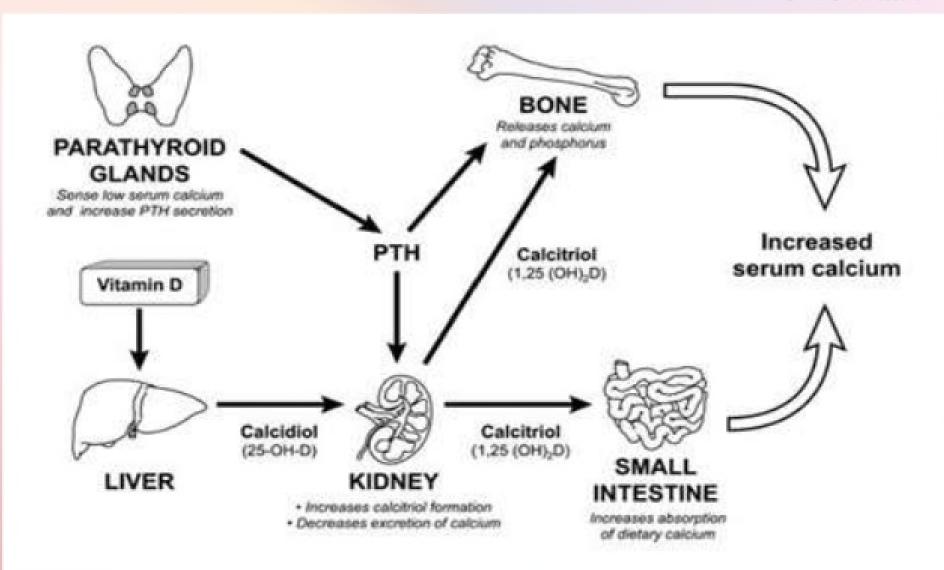






# Calcium Metabolism

- Dr. Chintan



## Hypocalcemia

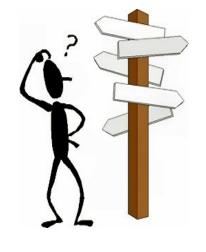
• It is an abnormally low calcium level in the blood.

• It can be caused by low levels of PTH, vitamin D deficiency, kidney failure, acute pancreatitis or insufficient magnesium and protein in the blood.

### Symptoms of Hypocalcemia













# Hypercalcemia

• It is an abnormally high calcium level in the blood.

• It can be caused by high levels of PTH, vitamin D overdose, prolonged periods of bed rest or immobilization and cancers of bones.

### Symptoms of Hypercalcemia











### Why calcium test is done?

• To check for problems with parathyroid glands, kidney failure and stones, cancers of breast, neck,lung and head, bone problems, pancreatitis and abnormal ECG.

- To check if symptoms are caused by very high levels of calcium
- To check if symptoms are caused by very low levels of calcium
- As a part of routine blood test

\* Bone mineral density test measures the amount of calcium in the bones

### How is the test done?

- The patient should be in recumbent position and rest at least for 30 minutes before the test
- The blood should be drawn without the use of tourniquet



# THANK YOU