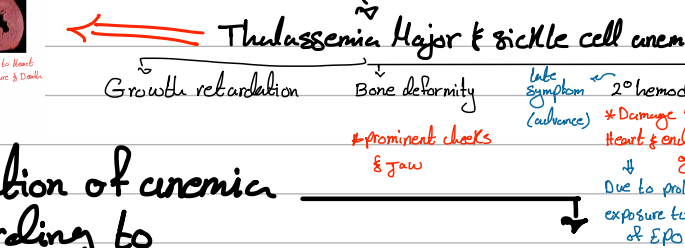
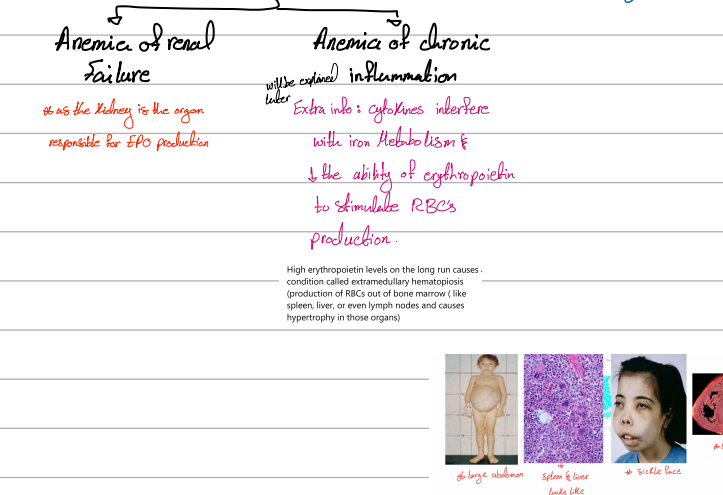
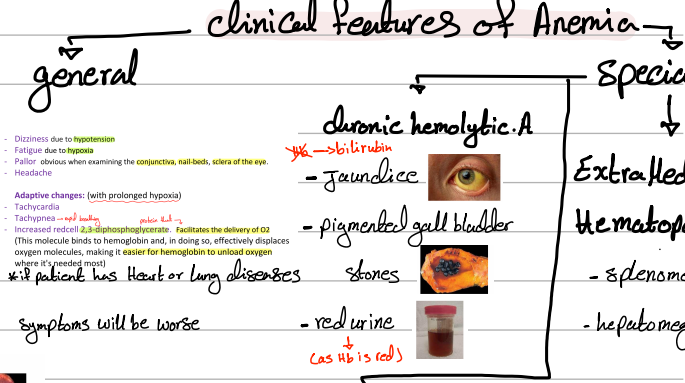
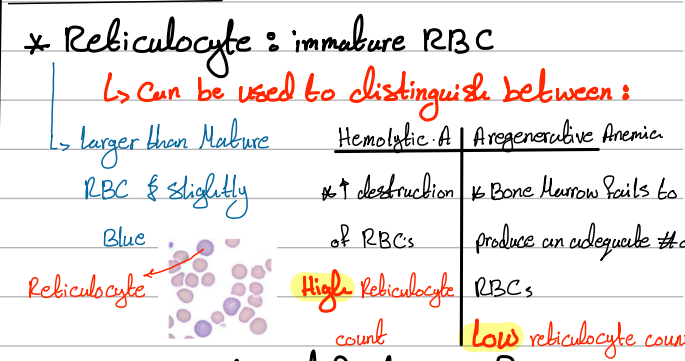
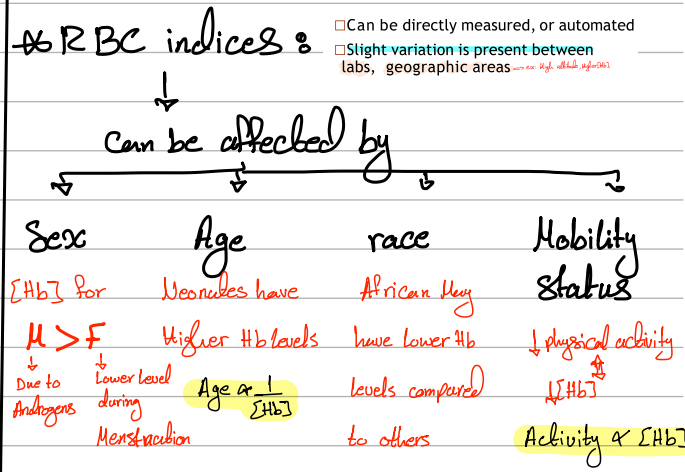
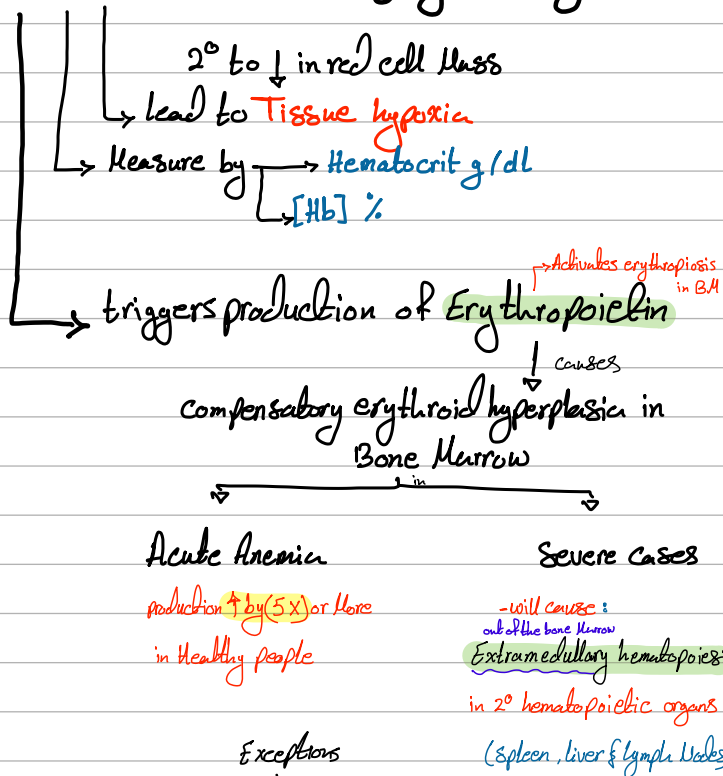
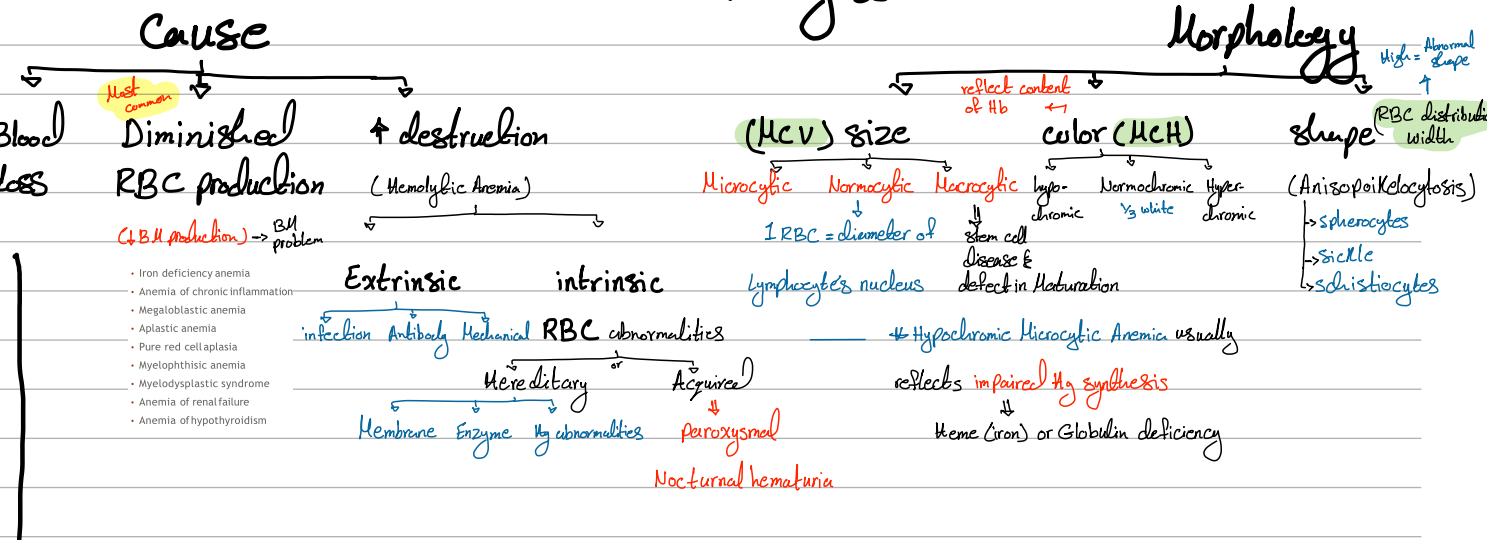


# Lec 2

**Anemia** : ↓ O<sub>2</sub> carrying capacity of blood  
 ↳ always followed by hypoxia



## classification of anemia according to



# Anemia caused by Blood loss

- Sudden & Fast

- could cause brain & Major organ tissue necrosis leading to Death

## Acute

- Symptoms related to

Hypovolemia

(↓ intravascular volume)

\* if loss is > 20% of

Blood volume => pt might have

Hypovolemic shock & Die

\* If pt survived Blood loss Body responds by

skin (2-3 days) → I shifting fluid from interstitial to intravascular space causing dilutional anemia & worse hypoxia

↳ ↓ [Hb] after bleeding has stopped

Needs (5-7 days) → II ⊕ EPO secretion → ⊕ B11

erythropoiesis

hemorrhage site

internal

External & GIT

iron deficiency is only in this case in Acute Blood loss



Iron deficiency (always)

Hypochromic & microcytic anemia

Low reticulocytes

- iron is restored

from extravasated

RBCs & used again in erythropoiesis

- iron is lost

\* which complicates Anemia

iron easy to lost  
↓  
hard to get

The Anemia for this type is called:

Normochromic Normocytic with reticulocytosis

Normal Hb content

Normal RBC size

↑ in reticulocytes (Bone Marrow is Active)

(Body reaction to deal with blood loss & Anemia)

- From gradual loss of Blood

## Chronic

→ Small amounts over extended period

occurs when

The rate of RBC loss > regeneration rate

\* Mostly occurs in

also

Gastrointestinal diseases

Excessive Menstruation

- peptic ulcers

- hemorrhoids

- colon cancer

- small bowel inflammation

result in

↓