

# Pathophysiology I NOTES

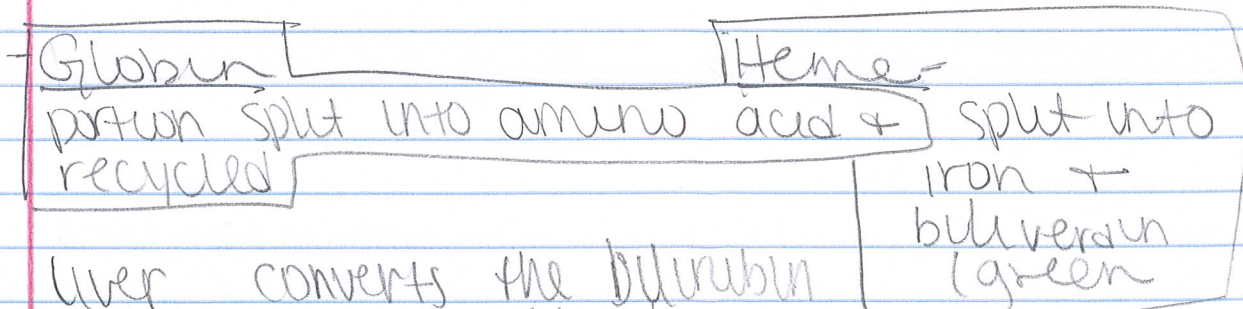
RBC - erythrocytes + W are leukocytes

bone marrow is located in the yolk sac of an early embryo, liver + spleen of a newborn, + red marrow is located in the axial + appendicular skeleton of a child but red marrow is located in the axial skeleton while the yellow marrow is in appendicular skeleton of an adult.

red blood cell circulate for 120 d.  
transport  $O_2$  + remove  $CO_2$  from body tissue

Hemoglobin: oxygen-carrying protein that is 90% of a cell's dry weight. If amount ↓ then kidney makes erythro.

RBC are broken down by macrophages located in liver or spleen of human body



liver converts the bilirubin into a water soluble form w/ glucuronic acid so that it can be removed through feces or urine

\* Ch 13: Alterations in Oxygen Transport

RBC - erythrocytes

WBC - leukocytes

platelets

Location of bone marrow

- early embryo - yolk sac
- newborn - liver + spleen
- childhood - bone in axial + appendicular skeleton both have red marrow
- adulthood - bone in axial have red marrow + appendicular have yellow marrow

RBC: circulate for 120 days, transport oxygen to tissue + remove carbon dioxide from tissue

Hemoglobin

- oxygen-carrying protein
- 90% of cells dry weight
- if decreased, kidney secretes erythropoietin

Destruction

- in macrophages of liver or spleen
- globin portion broken down into amino acids + recycled
- heme portion split into iron + bilirubin (green)
- liver converts bilirubin to water soluble form from lipid soluble so that it can be removed through feces or urine

