

Formation of blood (hematopoiesis) Sites of hematopoiesis During pregnancy , blood is formed at the following sites : Yolk sac : – Forms blood during the intrauterine life , first trimester Liver & spleen : – Form blood during the intrauterine life , second trimester After delivery , the liver and spleen may resume their hemopoietic activity in children suffering from chronic anemia [this is known as extramedullary hematopoiesis] Bone marrow) : – Forms blood during the intrauterine life , third trimester (and then after delivery) ; called red marrow (active marrow) –Found in almost all bones during pregnancy After delivery , blood is formed at the following sites : The red bone marrow – After delivery , the red bone marrow starts to be replaced gradually by yellow marrow (inactive marrow) – At about the age of 20y the red marrow is confined to : ❖ Flat bones Skull , sternum , ribs , scapula , vertebrae & iliac bone ● Ends of long bones " epiphyses " not the shaft " diaphysis " ● Small bones of hands & feet – About 75 % of the cells in the red bone marrow are WBC precursors and only 25 % are RBC precursors ; inspite of the fact that RBC count is over 500 times more than the WBC count . This indicates the longer life span of RBCs . The core of medical physiology (1) – 3rd edition Page 134