



GENERAL EXAMINATION

4.3. Jaundice

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Jaundice is the yellow discoloration of the body due to the accumulation of bilirubin in tissues. If the serum bilirubin level exceeds >3 mg/dl, jaundice is initially observed in the sclerae, and if it goes beyond >5 mg/dl, jaundice becomes apparent throughout the entire body. The reason for the initial accumulation in the sclera is its high elastin content and bilirubin's affinity for elastin.

Bilirubin Metabolism

Bilirubin is a breakdown product of *heme*, containing four pyrrole rings. It emerges as a result of erythrocyte degradation, mainly within reticuloendothelial cells, primarily in the spleen and liver. Approximately 300 mg of bilirubin is produced daily from erythrocyte breakdown. Bilirubin is insoluble in water (unconjugated/indirect bilirubin); therefore, it is transported in the bloodstream bound to albumin. Hepatocytes take up bilirubin from plasma, it becomes water-soluble through conjugation with glucuronic acid in the endoplasmic reticulum (conjugated/direct bilirubin) in the cytoplasm. In this form, it is excreted into bile through the canalicular membrane.

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