

NR 507 Week 2 Study Guide Anemia

Basics of Anemia: A normal hemoglobin level is 12.0-17.0 g/dL (HGB mild 10-12, Moderate 6-10, Severe below 6)

- **Definition:** Decreased red blood cells (RBCs) or hemoglobin → reduced oxygen delivery to tissues.
- **Symptoms:** Pallor, Fatigue, shortness of breath, increased HR/RR, decreased BP, Cold intolerance. (Module says); fatigue, pallor, muscle pain, increased respiratory rate, exertional dyspnea, dizziness, and fainting.

Causes:

🎬 **Blood Loss (Acute or Chronic):** -Menstruation -Trauma -Gastrointestinal lesions

🎬 **Decreased/Impaired RBC Production:**

- **Genetic defects:** Thalassemia syndrome
- **Nutritional deficiencies:** B12, folate, iron
- **Disease-related:** Renal failure, acute leukemia, endocrine disorders

🎬 **Increased RBC Destruction (Hemolysis):**

- **Genetic disorders:**
 - Red cell membrane disorders (e.g., spherocytosis)
 - Enzyme deficiencies (e.g., pyruvate kinase deficiency)
 - Hemoglobin abnormalities (e.g., thalassemia, sickle cell disease)
 - **Acquired conditions:**
 - Antibody-mediated destruction (e.g., Rh disease, transfusion reactions, autoimmune disorders)
 - Infections (e.g., malaria)
 - Cardiac traumatic hemolysis (e.g., defective cardiac valves)
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