



## 5: Hematological System Definitions

### Terms in this set (43)

Anemia	Reduction in number and/or function of erythrocytes, hemoglobin, hematocrit, or any combination of these
Angular stomatitis	Advanced manifestation of iron deficiency anemia characterized by inflamed and dry mouth, lips, tongue, atrophied tongue papillae
Aplastic	Anemias affecting the hemopoietic stem cell precursor at the level of the bone marrow leading to pancytopenia
Atrophic glossitis	Red, beefy tongue characteristic of pernicious anemia
Bence Jones protein	Characteristic marker of multiple myeloma
Bone marrow	Anemia caused by impaired (poor quality) and/or decreased (too few) production of RBCs by ____
Disseminated intravascular coagulation	Platelet aggregation combined with consumption of coagulation factors leads to a combination of clot formation and bleeding
Ecchymosis	Subcutaneous spot of bleeding with diameter larger than 1 centimetre (more than 5mm)
Edema	Fluid present within interstitial space
Folic acid (B9)	Vitamin deficiency anemia due to impaired DNA and RNA synthesis in the bone marrow
Haemoglobinopathies	Set of inherited disorders affecting the protein structure and thus function of the hemoglobin molecule
Hemolytic	Anemia from increased RBC destruction from hereditary abnormalities or acquired disease conditions
Hemosiderosis	Increased plasma iron leading to deposition in various body tissues and damage related to iron toxicity

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Iron deficiency	Most common type of anemia worldwide with causes ranging from blood loss to defective nutrient uptake/utilization or insufficient intake
Leukemia	Abnormal increase in white blood cell count; Immature cells in blood circulation
Lymphoma	Malignant transformation and proliferation of lymphocytes and their precursors/derivatives in lymphoid tissues; Cancer of both blood and lymphatic system
Hodgkin	Neoplasm of Reed-Sternberg cells
Non	Hodgkin-Lymphoma of B-cell, T-cell, or NK neoplasms
Macrocytic	Anemia with large RBC size (>100) and hypersegmented neutrophils
Macrocytosis	Disproportionate growth of nucleus and cytoplasm resulting in a large cell with a small nucleus
Microcytic Hypochromic	Anemia characterized by small RBCs and low Hb
Multiple myeloma	Malignant proliferation of plasma cells which infiltrate bone marrow and aggregate to create tumor masses in bone
Normocytic Normochromic	Anemia in which RBC size and Hb content are normal but there is reduced number or impaired function
Pallor sign	Microscopic identification of anemia by pale central regions of RBCs seen on blood smear (indicates low Hb)
Pernicious anemia	Autoimmune vitamin B12 deficiency due to lack of intrinsic factor required for absorption (anti-intrinsic factor antibody)
Petechiae	Red/purple skin spots less than 3mm caused by subcutaneous bleeding;
Do not blanch on applying pressure and are secondary to platelet, vascular, or coagulation disorders	...
Pica	Cravings for non-nutritional substances such as clay, dirt, and chalk; Characteristic of iron-deficiency
Polcythemia	Overproduction of RBCs and increased RBC count above normal

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Secondary polycythemia	Increased RBC production resulting from chronic hypoxia and increased production of erythropoietin hormone
Relative polycythemia	Increased blood viscosity secondary to dehydration
Purpura	Red/purple skin spots measuring 3-10mm caused by subcutaneous bleeding and secondary to platelet, vascular or coagulation disorders
Sickle cell	Anemia characterized by globin chain deficiency leading to fragile RBCs forming characteristic half-moon crescent; Causes increased destruction of defective cells
Sideroblastic	Anemia caused by group of disorders related to inefficient iron uptake leading to abnormal hemoglobin synthesis
Sideroblasts	RBCs containing iron granules that have not been incorporated into hemoglobin and form a ring around the nucleus
Spleen	Location of increased erythrocyte destruction resulting in anemia
Splenomegaly	Enlargement of the spleen due to excess destruction of old/damaged RBCs
Thalassemias	Hemoglobinopathy of defective hemoglobin synthesis due to defects in the alpha or beta chains of the globin molecule
Thrombocytopenia	Platelet count <150,000/mm <sup>3</sup>
Thrombosis	Blood clot forms within vessel
Vitamin B12 deficiency anemia	Can be caused by low levels of intrinsic factor (IF)
Virchow's triad	3 conditions together increasing risk of thrombosis (hypercoagulability of blood, vessel wall injury, stasis of blood)