the term has been used to denote specific disorders with this characteristic, including congenital aregenerative anemia, siderosis of the reticuloendothelial system. and often requires multiple blood transfusions. Called also anemic, adj

Aplastic anemia, any of a diverse group of anemias characterized by bone marrow failure with reduction of hematopoietic cells and their replacement by fat, resulting in pancytopenia, often accompanied by granulocytopenia and thrombocytopenia. It may be hereditary; it may be secondary to causes such as toxic, radiant, or immunologic injury to bone marrow stem cells or their microenvironment; it may be associated with various diseases; or it may be idiopathic.

Arctic anemia, polar a.

Aplastic anemia, any of a diverse group of anemias characterized by bone marrow failure, so that functional marrow cells are regenerating slowly or not at all; the term has been used to denote specific disorders with this characteristic, including aplastic anemia and pure red cell anemia, autologous hemolytic anemia, any of a large group of anemias involving autoantibodies against red cell antigens. Those due to warm-reactive antibodies, usually IgM but occasionally IgA, may be idiopathic or secondary to autoimmune diseases, hematologic neoplasms, viral infections, or immunodeficiency diseases, and usually involve sequestration of sensitized erythrocytes by the spleen. Those due to cold-reactive antibodies, usually IgM but occasionally IgG, include cold agglutinin syndrome and paroxysmal cold hemoglobinuria and usually involve complement-dependent intravascular hemolysis or sequestration of erythrocytes by the liver.

Bartonella anemia, Oroya fever.

Blackfan-Diamond anemia, congenital hypoplastic a. (def. 1).

Anemia of chronic disease, anemia of chronic disorders, a mild to moderate anemia secondary to any of numerous chronic diseases lasting more than two months, such as infections, inflammatory conditions, or malignancies, characterized by hypoferrinemia in combination with siderosis of the reticuloendothelial system.

Constitutional aregenerative anemia, congenital hypoplastic a. (def. 1).

Constitutional dyserythropoietic anemia, any of several rare hereditary anemias, mostly types of macrocytic anemia, characterized by nuclear abnormalities of the erythrocytes, such as multinuclearity, karyolysis, or macrocytosis. The most common type (called also HEMAPAS) is an autosomal recessive condition characterized by multinuclear erythrocytes and a positive acidified serum test.

Constitutional hemolytic anemia, hemolytic anemia that is present from birth and in which the lifespan of red blood cells is diminished, such as occurs in hereditary spherocytosis, hereditary spherocytosis.

Constitutional hypoplastic anemia, a genetically diverse anemia, often associated with other congenital anomalies, encountered in the first year of life and characterized by deficiency of red cell precursors in an otherwise normally cellular bone marrow; it is unresponsive to hematins and often requires multiple blood transfusions. Called also Blackfan-Diamond a., or syndromes, Diamond-Blackfan a., or syndromes, congenital pure red cell a., or aplasia, congenital aregenerative a., and erythropoiesis imperfecta Fancioni syndrome (def. 1).

Constitutional anemia of newborn, erythroblastosis fetalis.

Constitutional nonspherocytic hemolytic anemia, any of a heterogeneous group of inherited anemias characterized by shortened red blood cell survival, lack of spherocytosis, and normal osmotic fragility associated with erythrocyte membrane defects, multiple intracellular enzyme deficiencies or other defects, or unstable hemoglobin.

Constitutional pernicious anemia, a rare disorder seen in children, clinically similar to the pernicious anemia of adults but differing in that gastric acid secretion is normal, the gastric mucosa is not atrophied, and development is delayed.

Constitutional sideroachrestic anemia, hereditary sideroblastic a.

Cooley anemia, thalassemia major.

Cow's milk anemia, milk anemia in infants fed exclusively on cow’s milk.

Deficiency anemia, anemia caused by lack of a specific substance required for normal hemoglobin synthesis and erythrocytic maturation and arising by several means, such as malabsorption or poor dietary intake. See folate deficiency a., iron deficiency a., and scurvy. Called also nutritional a.

Diamond-Blackfan anemia, congenital hypoplastic a. (def. 1).

dilution anemia, hydremia.

dimorphic anemia, anemia with erythrocytes of two different sizes, such as with combined deficiencies of vitamin B12 and iron or after a bone transfusion.

drug-induced hemolytic anemia, drug-induced immune hemolytic anemia, immune hemolytic anemia induced by drugs, classified by mechanism as penicillin type, in which the drug, acting as a hapten bound to the red cell membrane, induces the formation of specific antibodies; methyldopa type, in which the drug, possibly by inhibition of suppressor T cells, induces the formation of anti-Rh antibodies; or stibopropion or “innocent bystander” type, in which circulating drug-antibody immune complexes bind nonspecifically to red cells. The first two types usually involve warm-reactive antibodies and accelerated sequestration of red cells by the reticuloendothelial system; the third usually involves cold-reactive antibodies and complement-dependent intravascular hemolysis.

effective erythrocytosis, hereditary elliptocytosis.

equine infectious anemia, a disease of equines caused by a lentivirus and spread through the blood by inoculation, especially by blood-sucking insects; characteristics include abrupt fevers and recurring attacks of malaise. Called also infectious a. of horses and swamp fever.

Fanconi anemia, Fanconi syndrome (def. 1).

Feline infectious anemia, a cyclic type of hemolytic anemia in domestic cats caused by infection of red blood cells with the rickettsia Haemobartonella felis, which may be spread by cat to cat during fights; acute cases are characterized by fever, jaundice, anorexia, and splenomegaly and can be fatal. Called also haemobartonellosis.
folic acid deficiency anemia, macrocytic anemia due to deficiency of folic acid. Called also nutritional macrocytic anemia.
goat's milk anemia, milk anemia in infants fed exclusively on goat's milk.
ground itch anemia, hookworm anemia.
Heinz body anemias, a group of hemolytic anemias of diverse etiology with the common morphologic characteristic of having Heinz bodies within affected erythrocytes.

hemolytic anemia, any of a group of acute or chronic anemias characterized by excessive hemolysis (shortened survival of mature erythrocytes) and inability of bone marrow to compensate with new erythrocytes. There are two major groups: the inherited anemias are generally due to intrinsic cell defects such as in the erythrocyte membrane, glycolytic pathway, glutathione metabolism, or hemoglobin molecule; these include congenital hemolytic and congenital nonspherocytic hemolytic anemia. The acquired anemias are due to the actions of extrinsic agents such as infectious agents, poisons, physical trauma, or antibodies; these include autoimmune, immune, infectious, and toxic hemolytic anemia.

hemolytic anemia of newborn, erythroblastosis fetalis.
hemorrhagic anemia, anemia caused by the sudden and acute loss of blood; called also acute posthemorrhagic anemia.
hereditary iron-loading anemia, hereditary sideroblastic anemia.
hereditary sideroachrestic anemia, hereditary sideroblastic anemia, an X-linked anemia, usually detected in childhood or early adulthood, characterized by an abundance of ringed sideroblasts, hypochromic, microcytic erythrocytes, poikilocytosis, weakness, and iron overload in later years. Called also Rundles-Falls syndrome.

hookworm anemia, hypochromic microcytic anemia that occurs as part of hookworm disease (q.v.). Called also ground itch anemia.
hypochromic anemia, anemia characterized by a disproportionate reduction of red cell hemoglobin and an increased area of central pallor in the red cells. It may be hereditary (e.g., hereditary sideroblastic anemia, thalassemia minor) or acquired (e.g., iron deficiency anemia). Called also Faber syndrome.
hypochromic microcytic anemia, any anemia with microcytes that are hypochromic (reduced in size and in hemoglobin content); the most common type is iron deficiency anemia.

anemia hypochromica sideroachrestica hereditaria, hereditary sideroblastic anemia.
hypoplastic anemia, any of various anemias caused by some degree of erythroid hypoplasia without leukopenia or thrombocytopenia, which may develop into aplastic anemia.

immune hemolytic anemia, immunohemolytic anemia, an acquired hemolytic anemia in which hemolysis takes place in response to isoantibodies or autoantibodies produced on exposure to drugs, toxins, or other antigens. See also autoimmune hemolytic anemia, drug-induced immune hemolysis, and erythroblastosis fetalis.

infectious hemolytic anemia, hemolytic anemia due to an incompletely compensated decrease in red blood cell survival secondary to infection.
infectious anemia of horses, equine infectious anemia.
iron deficiency anemia, a type of hypochromic microcytic anemia caused by low or absent iron stores and serum iron concentration; there is an elevated free erythrocyte porphyrin, low transferrin saturation, elevated transferrin, low serum ferritin, and low hemoglobin concentration. Symptoms may include pallor, angular stomatitis and other oral lesions, gastrointestinal complaints, retinal hemorrhages and exudates, and thinning and brittleness of the nails, occasionally leading to spoon nails (koilonychia).
jejunie pernicious anemia, congenital pernicious anemia.

leukoerythroblastic anemia, leukoerythroblastosis.
microcytic anemia, any of various anemias of diverse etiology that are characterized by erythrocytes that are larger than normal and lack the usual central area of pallor; mean corpuscular volume and mean corpuscular hemoglobin are also elevated. See folic acid deficiency anemia and tropical macrocytic anemia.

Mediterranean anemia, thalassemia major.
megaloblastic anemia, any anemia characterized by megaloblastosis in the bone marrow, such as pernicious anemia.

megaloblastic anemia, macrocaryotic anemia.
microangiopathic anemia, microangiopathic hemolytic anemia, thrombotic thrombocytopenic purpura.
microcytic anemia, any anemia characterized by microcytes (erythrocytes smaller than normal), such as iron deficiency anemia or S-thalassemia. See also hypochromic microcytic anemia.
milk anemia, iron deficiency anemia in infants fed a diet of only milk; see cow's milk a. and goat's milk a.
mountain anemia, a misnomer for mountain sickness.
myelopathic anemia, myelophthisic anemia, leukoerythroblastosis.
nonpherocytic hemolytic anemia, see congenital nonspherocytic hemolytic anemia.
normochromic anemia, anemia in which the hemoglobin content of the red cells as measured by the MCHC is in the normal range.
normocytic anemia, anemia with erythrocytes of normal size but a proportionate decrease in hemoglobin content, packed red cell volume, and number of erythrocytes per cubic millimeter of blood.

nutritional anemia, deficiency anemia.
nutritional macrocytic anemia, folic acid deficiency anemia.
osteosclerotic anemia, anemia due to bone marrow failure associated with osteosclerosis, as a result of the effect on bone marrow of changes in the bones.

pernicious anemia, a type of megaloblastic anemia usually seen in older adults, caused by impaired intestinal absorption of vitamin B12 due to lack of availability of intrinsic factor; it is often characterized by pallor, achlorhydria, glossitis, gastric mucosal atrophy, weakness, antibodies against gastric parietal cells or intrinsic factor, and neurologic manifestations.

physiologic anemia, the normocytic, normochromic anemia that occurs in infants at the age of two or three months, owing to normal depression of erythropoiesis and hemoglobin synthesis, probably resulting as an adjustment to the changeover from placental to pulmonary oxygenation.
polar anemia, an anemic condition that occurs during exposure to low temperature; it is initially microcytic but later becomes normocytic. Called also Arctic anemia.
posthemorrhagic anemia of newborn, anemia of the newborn due to hemorrhage, such as into the placenta or from umbilical vessels; it may range from mild to severe.

primary acquired sideroblastic anemia, refractory sideroblastic anemia

pure red cell anemia, anemia characterized by absence of red cell precursors in the bone marrow. It may be acquired or congenital; the latter is called congenital hypoplastic anemia.

pyridoxine-responsive anemia, a form of sideroblastic anemia in which there is a therapeutic response to pyridoxine; it affects predominately young or middle-aged males.

anemia refractoria sideroblastica, refractory sideroblastic anemia.

refractory normoblastic anemia, refractory sideroblastic anemia, a sideroblastic anemia clinically similar to the hereditary sideroblastic form but occurring in adults and often only slowly progressive. It is unresponsive to hematinics or withdrawal of toxic agents or drugs and can be a preleukemic disorder.

renal anemia, anemia occurring as a complication of chronic kidney disease, mainly due to deficiency of erythropoietin in the blood.

scorbutic anemia, anemia due to deficiency of ascorbic acid (vitamin C); in naturally occurring human scurvy the anemia is generally normocytic, although in experimentally induced vitamin C deficiency the anemia is of the megaloblastic type.

sickle cell anemia, a hereditary hemolytic anemia, seen primarily in West Africa and in people of West African descent, and less often in the Mediterranean basin and a few other areas. It is an autosomal recessive disorder in which mutation of the HBB gene (locus: 11p15.5), which encodes the ß-globin chain, results in hemoglobin S, which has decreased solubility in the deoxygenated state and results in abnormal sickle-shaped erythrocytes (sickle cells). Homozygous individuals have 85 to 95 percent sickle cells and have the full-blown syndrome with accelerated hemolysis, increased blood viscosity and vaso-occlusion, arthralgias, acute attacks of abdominal pain, ulcerations of the lower extremities, and periodic attacks of any of the conditions called sickle cell crises. The heterozygous condition is called sickle cell trait and is usually asymptomatic. See also sickle cell disease, under disease. Called also sicklemia.

sideroachrestic anemia, sideroblastic anemia, any of a heterogeneous group of acquired and hereditary anemias with diverse clinical manifestations, commonly characterized by large numbers of ringed sideroblasts in the bone marrow, ineffective erythropoiesis, variable proportions of hypochromic erythrocytes in the peripheral blood, and usually increased levels of tissue iron. The two most common kinds are hereditary sideroblastic anemia and refractory sideroblastic anemia.

sideropenic anemia, any of a group of anemias characterized by low levels of iron in the plasma; it includes iron deficiency anemia and the anemias of chronic disorders.

slaty anemia, a term applied to a gray discoloration of the face in poisoning by silver.

spherocytic anemia, hereditary spherocytosis.

spur cell anemia, anemia in which the red blood cells have a bizarre spiculated shape and are destroyed prematurely, primarily in the spleen; it is an acquired form occurring in severe liver disease and represents an abnormality in the cholesterol content of the cell membrane.

toxic hemolytic anemia, anemia due to a toxic agent such as a drug, bacterial lysin, or snake venom.

tropical macrocytic anemia, a type of nutritional macrocytic anemia seen in impoverished tropical regions, resembling pernicious anemia but without achlorhydria and only erratically responsive to vitamin B12. The etiology is often related to folate deficiency, and administration of folic acid usually produces marked improvement.

X-linked sideroblastic anemia, hereditary sideroblastic anemia.