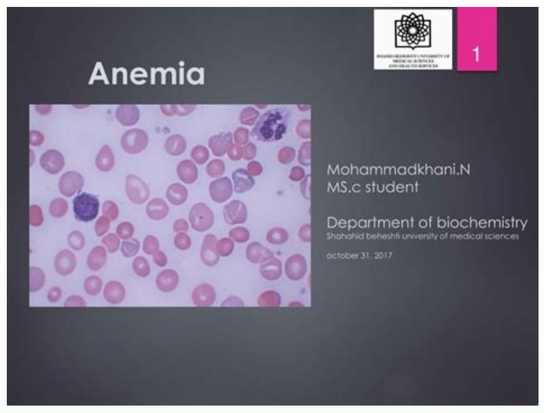
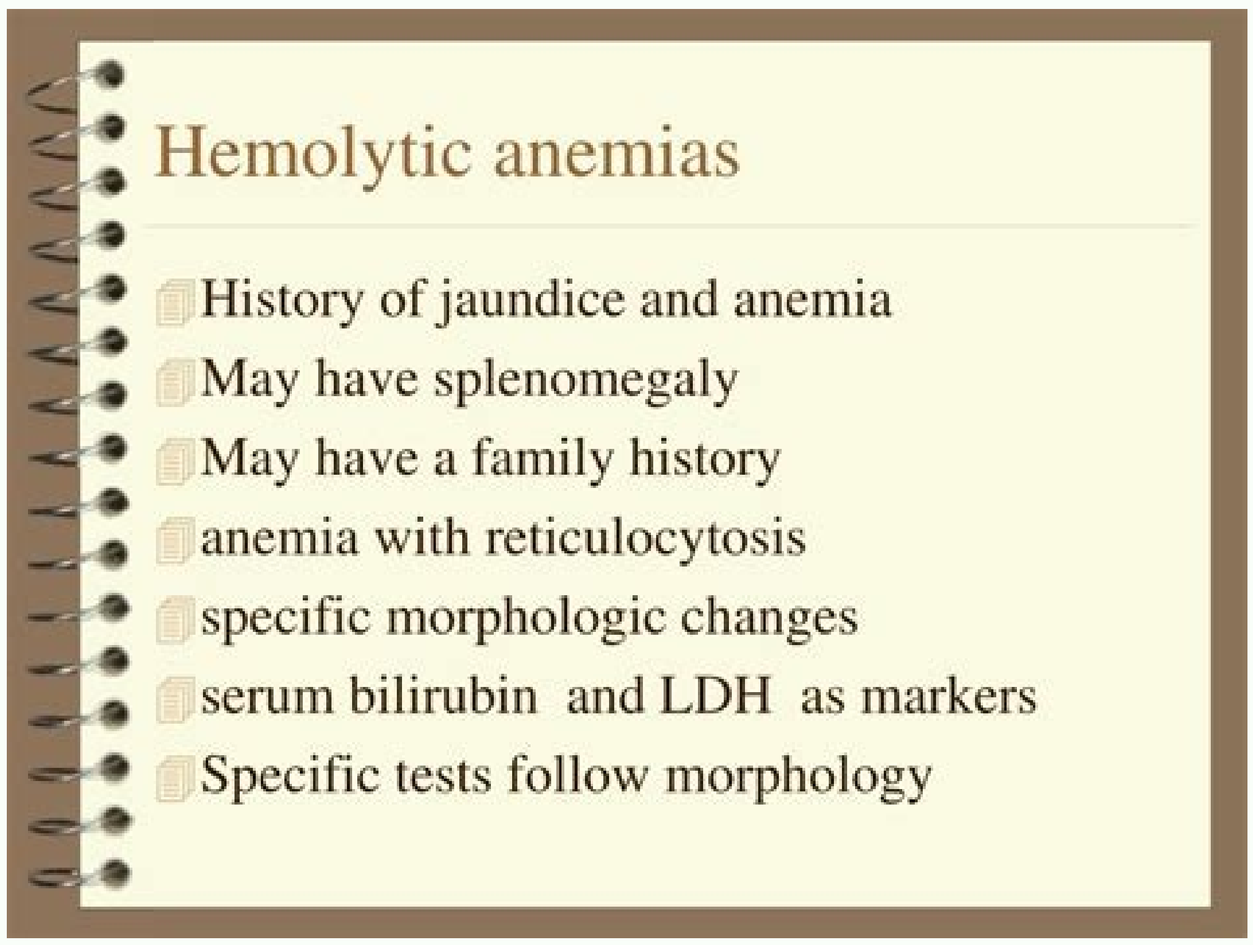
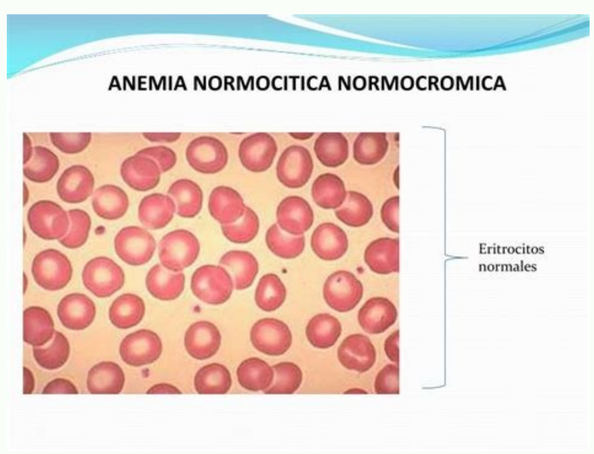
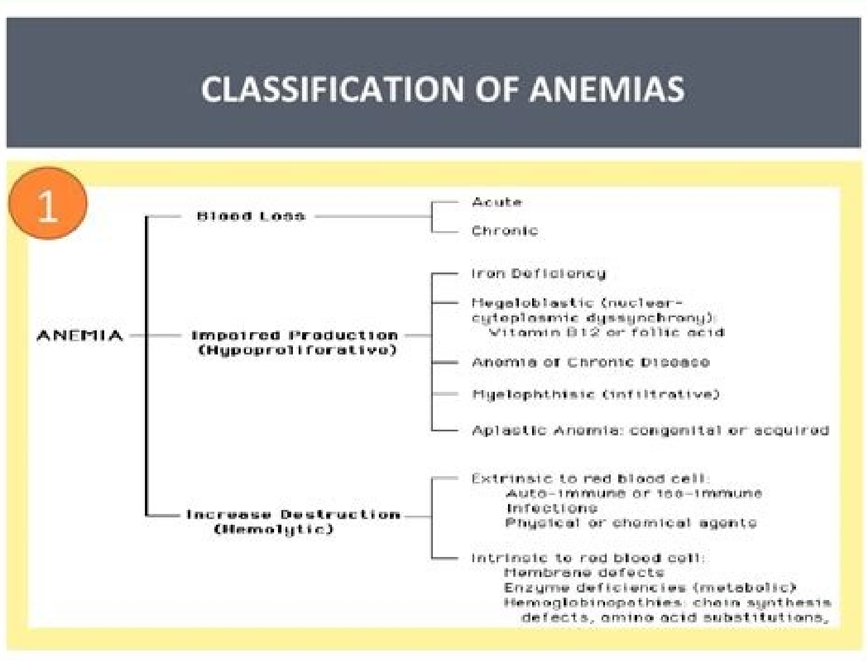
Types of anemias pdf



Types of Anemia	Description	Examples of Causes
Iron Deficiency	Lack of iron leads to decreased amounts of hemoglobin in turn leads to decreased production of normal RBCs	Blood loss; diet low in iron; poor absorption of iron
Pernicious Anemia & B Vitamin Deficiency	Lack of B vitamins does not allow RBCs to grow and then divide as they normally would during development; leads to decreased production of normal RBCs	Lack of intrinsic factor; diet low in B vitamins; decreased absorption of B vitamins
Aplastic	Decreased production of all cells produced by the bone marrow of which RBCs are one type	Cancer therapy, exposure to toxins, autoimmune disorders, viral infections
Hemolytic	RBCs survive less than the normal 120 days in the circulation; leads to overall decreased numbers of RBCs	Inherited causes include sickle cell and thalassemia; other causes include transfusion reaction, autoimmune disease, certain drugs (penicillin)
Anemia of Chronic Diseases	Various conditions over the long term can cause decreased production of RBCs	Kidney disease, diabetes, tuberculosis or HIV







Types of anemias nursing. Types of anemias chart. Describe different types of anemias. How many types of anemia are there. Types of anemia ppt. Types of anemias ninja nerd. Types of anemias and their causes. Types of anemias quizlet.

The most common causes of megaloblastic anemia are deficiency of either cobalamin (vitamin B12) or folate (vitamin B9). Your body needs folate and vitamin B12 to produce enough healthy red blood cells. A diet lacking in these and other key nutrients can cause decreased red blood cell production. Additionally, some people may consume enough vitamin B12, but their bodies aren't able to process the vitamin. This can lead to vitamin deficiency anemia, also known as pernicious anemia.A deficiency in vitamin B12 can result in varying degrees of neuropathy or nerve damage. In severe cases, mental changes that range from confusion and irritability to dementia may occur.1Pregnant women need increased folate for proper fetal development because of the added stress of rapidly growing fetal cells. A folate deficiency during pregnancy, especially in the early weeks when a woman might not know she is pregnant, may lead to premature birth and neural tube birth defects (NTDs) such as spina bifida in the child.1Vitamin B12 in serum is bound to two proteins: transcobalamin (TC) and haptocorrin (HC). The transcobalamin vitamin B12 complex is called holotranscobalamin (holoTC). HoloTC is also known as active-B12 as it contains the biologically available cobalamin, as only holoTC promotes the uptake of cobalamin by all cells via specific receptors. HoloTC has been shown to be superior to other relevant lab parameters in B12 deficiency, such as serum total cobalamin and methylmalonic acid (MMA), for diagnosing vitamin B12 deficiency.2Laboratory testing is used to detect a vitamin deficiency, determine its severity, establish it as the underlying cause of someone's symptoms, and to monitor the effectiveness of treatment.1 Laboratory testing may include:Complete Blood Count (CBC), incl. granulocyte segmentationErythrocyte differential with %Macro and MCV elevationReferences:1. . Valente E et al. Diagnostic Accuracy of Holotranscobalamin, Methymalonic Acid, Serum Cobalamin, and Other Indicators of Tissue Vitamin B12 Status in the Elderly. Clin Chem 57:6, 856-863 (2011) Medically reviewed by Meredith Goodwin, MD, FAAFP — Written by Peter Lam — Updated on July 29, 2022SymptomsTypesCausesTreatmentDietRisk factorsDiagnosisOutlookSummaryAnemia occurs when the number of red blood cells circulating in the body decreases. It is the most common blood disorder.According to a 2015 article published in The Lancet, around one-third of the world's population has a form of anemia.Other health conditions, such as those that interfere with the body's production of healthy red blood cells (RBCs) or increase the rate of the breakdown or loss of these cells, can cause anemia. Anemia can lead to symptoms including fatigue, shortness of breath, and lightheadedness.In this article, we explain the types, symptoms, and causes of anemia, as well as the treatments available.The most common symptom of anemia is fatigue. Other common symptoms include:pallid complexiona fast or irregular heartbeatshortness of breathchest painheadachelightheadednessHowever, symptoms vary from person to person. Some people with mild anemia may experience few or no symptoms.There are many forms of anemia, and each type has telltale symptoms. Some common types of anemia include:iron deficiency anemiavitamin B12 deficiency anemiaaplastic anemiahemolytic anemiaIron deficiency anemiaThe most common form of anemia, iron deficiency anemia involves the body producing too few RBCs due to a lack of iron in the body. It may develop as a result of:It can cause symptoms including:fatiguelightheadednesscold extremitiesLearn more about iron deficiency anemia.Vitamin B12 deficiency anemiaVitamin B12 is essential for the production of RBCs. If a person does not consume or absorb enough B12, their RBC count may be low.Some symptoms include:difficulty walkingconfusion and forgetfulnessvision problemsdiarrheaglossitis, which is a smooth, red tongueLearn more about vitamin B12 deficiency anemia.Aplastic anemiaThis rare blood condition happens when the bone marrow cannot produce enough new RBCs. It is most often a result of an autoimmune disease that damages stem cells. This occurs despite having normal iron levels.It can cause symptoms such as:fatiguefrequent infectionsskin rashesbruising easilyLearn more about aplastic anemia.Hemolytic anemiaThis type of anemia happens when RBCs are destroyed faster than the body can produce new ones. A variety of conditions can cause this, such as autoimmune diseases, infections, bone marrow problems, and inherited conditions such as sickle cell disease and thalassemia.Hemolytic anemia can cause symptoms including:dizzinessweaknessjaundicedark urinefeverabdominal painLearn more about hemolytic anemia.The body needs RBCs to survive. They

transport hemoglobin, a complex protein that attaches to iron molecules. These molecules carry oxygen from the lungs to the rest of the body.Various health conditions can result in low levels of RBCs and cause anemia.There are many types of anemia and no single cause. In some people, it can be difficult to identify what is causing a low RBC count.The three main causes of anemia are:Blood lossIron deficiency anemia is the most common form of anemia, and blood loss is often the cause. Blood loss can lead to low levels of iron in the blood, causing anemia.When the body loses blood, it draws water from tissues beyond the bloodstream to help keep the blood vessels full. This additional water dilutes the blood, reducing the RBC count.Blood loss can be acute (short term) or chronic (long term). Some causes of acute blood loss include surgery, childbirth, and trauma. However, chronic blood loss is more often responsible for anemia. Chronic blood loss may result from conditions such as a stomach ulcer, endometriosis, cancer, or another type of tumor.Other causes of anemia due to blood loss include:gastrointestinal conditions, such as hemorrhoids, cancer, or gastritisthe use of nonsteroidal anti-inflammatory drugs, such as aspirin and ibuprofenheavy menstrual bleedingDecreased or impaired RBCsBone marrow is the soft, spongy tissue at the center of bones, and it plays an essential role in creating RBCs. The marrow produces stem cells, which develop into RBCs, white blood cells, and platelets.A number of diseases can affect the bone marrow. One of these is leukemia, a type of cancer that triggers the production of excessive and abnormal white blood cells. This disrupts the production of RBCs.Problems with bone marrow can also cause anemia. Aplastic anemia, for example, occurs when few or no stem cells are present in the marrow. In some cases, anemia happens when RBCs do not grow and mature as usual. This happens in people with thalassemia, a hereditary form of anemia.Destruction of RBCsRBCs typically have a life span of 120 days. However, the body may destroy or remove them before they complete their natural life cycle in the bloodstream.Autoimmune hemolytic anemia is caused by the destruction of RBCs. It occurs when the immune system mistakes RBCs for a foreign substance and attacks them.There is a range of treatments for anemia. Each aims to increase a person’s RBC count, which increases the amount of oxygen in the blood.The required treatment depends on the type of anemia a person has. Treatments for common forms of anemia include the following:Iron-deficiency anemia: Iron supplements and dietary changes can help, and a doctor will identify and address the cause of any excessive bleeding if present.Vitamin deficiency anemia: Treatments can include dietary supplements and vitamin B12 injections.Thalassemia: Treatments include folic acid supplements, iron chelation, and, for some people, blood transfusions and bone marrow transplants.Anemia due to chronic disease: The doctor will focus on managing the underlying condition.Aplastic anemia: Treatment for aplastic anemia involves blood transfusions or bone marrow transplants.Sickle cell anemia: Doctors treat this with oxygen therapy, pain relief medication, and intravenous fluids. They may also prescribe antibiotics, folic acid supplements, blood transfusions, and a cancer drug called hydroxyurea.Hemolytic anemia: The treatment plan may include immunosuppressant drugs, treatments for infections, and plasmapheresis, which filters the blood.If nutritional deficiencies are responsible for anemia, eating more iron-rich foods can help. Some foods that are high in iron include:iron-fortified cereal and breadleafy green vegetables, such as kale, spinach, and watercresspulses and beansbrown ricewhite or red meatsnuts and seedsfishtofueggsdried fruits, including apricots, raisins, and prunesAnemia can occur in people of all ages, sexes, and ethnicities. However, the following factors increase a person’s risk of developing a form of the condition:being born prematurelybeing 6–24 months oldmenstruatingbeing pregnant and giving birthconsuming a diet low in vitamins, minerals, and irontaking medications that inflame the stomach lining, such as NSAIDshaving a family history of inherited anemiahaving an intestinal disorder that affects the absorption of nutrientslosing bloodhaving a chronic illness such as AIDS, diabetes, kidney disease, cancer, rheumatoid arthritis, heart failure, or liver diseaseThere are various ways to diagnose anemia, but the most common method involves a blood test called a complete blood count (CBC). This test measures a number of components, including: hematocrit levels, which involves comparing the volume of RBCs with the total volume of blood hemoglobin levelsRBC countA CBC can give an indication of a person’s overall health. It can also help a doctor decide whether to check for underlying conditions such as leukemia or kidney disease.If RBC, hemoglobin, and hematocrit levels fall below the typical range, a person likely has some form of anemia.However, it is possible for a healthy person’s levels to fall outside this range. A CBC is not conclusive, but it is a helpful starting point for a doctor to make an accurate diagnosis.The outlook for a person with anemia depends on its cause. Sometimes, people can prevent or manage anemia with dietary changes alone. Other types of anemia require more significant treatment protocols, and some can be life threatening without treatment.If a person feels continually weak and tired, they should contact a doctor for testing.Anemia occurs when a low number of RBCs are circulating in the body. This reduces the person’s oxygen levels and can lead to symptoms such as fatigue, pale skin, chest pain, and breathlessness.Common causes are blood loss, reduced or impaired RBC production, and the destruction of RBCs. A doctor can use a CBC test to help detect anemia. Treatment varies depending on the type, but it may include dietary changes, supplements, medications, blood transfusions, and bone marrow transplants. Last medically reviewed on July 29, 2022Blood / HematologyUrology / Nephrology