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# Theme: Blood Diseases

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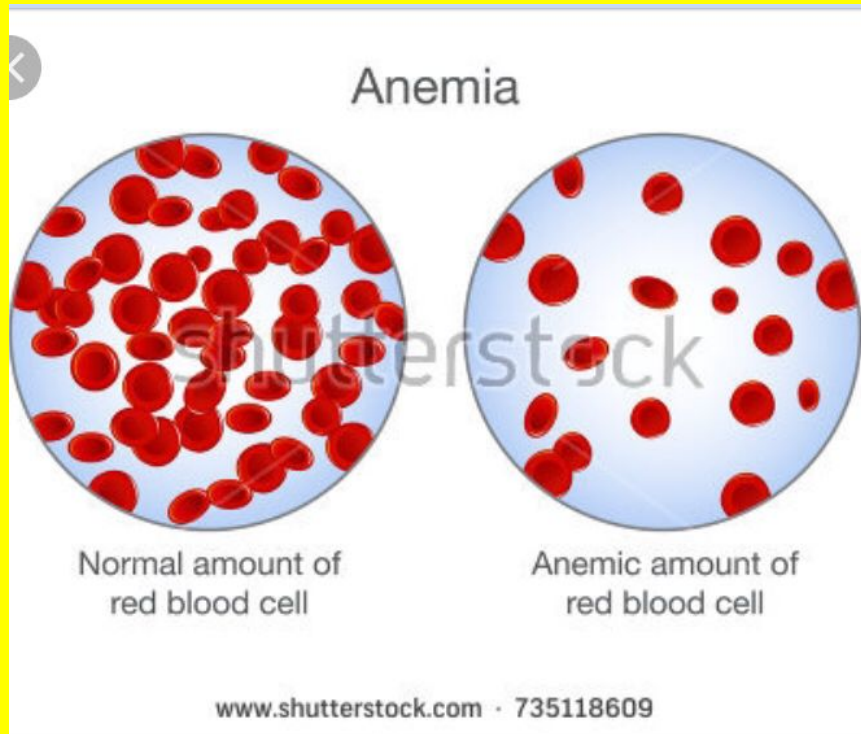
- ▶ **What are blood cell disorders?**
- ▶ **A blood cell disorder is a condition in which there's a problem with your red blood cells, white blood cells, or the smaller circulating cells called platelets, which are critical for clot formation. All three cell types form in the bone marrow, which is the soft tissue inside your bones. Red blood cells transport oxygen to your body's organs and tissues. White blood cells help your body fight infections. Platelets help your blood to clot. Blood cell disorders impair the formation and function of one or more of these types of blood cells.**

- ▶ What are the symptoms of blood cell disorders?
- ▶ Symptoms will vary depending on the type of blood cell disorder. Common symptoms of red blood cell disorders are:
  - ▶ fatigue
  - ▶ shortness of breath
  - ▶ trouble concentrating from lack of oxygenated blood in the brain
  - ▶ muscle weakness
  - ▶ a fast heartbeat
- ▶ Common symptoms of white blood cell disorders are:
  - ▶ chronic infections
  - ▶ fatigue
  - ▶ unexplained weight loss
  - ▶ malaise, or a general feeling of being unwell
- ▶ Common symptoms of platelet disorders are:
  - ▶ cuts or sores that don't heal or are slow to heal
  - ▶ blood that doesn't clot after an injury or cut
  - ▶ skin that bruises easily
  - ▶ unexplained nosebleeds or bleeding from the gums
- ▶ There are many types of blood cell disorders that can greatly affect your overall health.

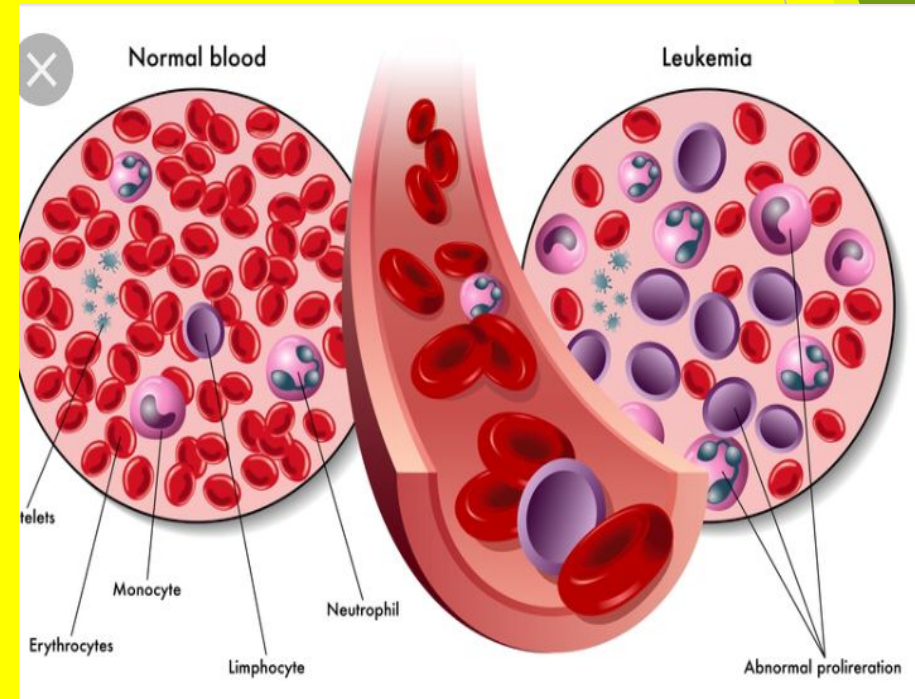
- ▶ **Anemia**
- ▶ **Anemia is one type of red blood cell disorder. A lack of the mineral iron in your blood commonly causes this disorder. Your body needs iron to produce the protein hemoglobin, which helps your red blood cells (RBCs) carry oxygen from your lungs to the rest of your body. There are many types of anemia.**
- ▶ **Iron deficiency anemia: Iron deficiency anemia occurs when your body does not have enough iron. You may feel tired and short of breath because your RBCs are not carrying enough oxygen to your lungs. Iron supplementation usually cures this type of anemia.**
- ▶ **Pernicious anemia: Pernicious anemia is an autoimmune condition in which your body is unable to absorb sufficient amounts of vitamin B-12. This results in a low number of RBCs. It is called “pernicious,” meaning dangerous, because it used to be untreatable and often fatal. Now, B-12 injections usually cure this type of anemia.**
- ▶ **Aplastic anemia: Aplastic anemia is a rare but serious condition in which your bone marrow stops making enough new blood cells. It can occur suddenly or slowly, and at any age. It can leave you feeling tired and unable to fight off infections or uncontrolled bleeding.**
- ▶ **Autoimmune hemolytic anemia (AHA): Autoimmune hemolytic anemia (AHA) causes your immune system to destroy your red blood cells faster than your body can replace them. This results in you having too few RBCs.**
- ▶ **Sickle cell anemia: Sickle cell anemia (SCA) is a type of anemia that draws its name from the unusual sickle shape of the affected red blood cells. Due to a genetic mutation, the red blood cells of people with sickle cell anemia contain abnormal hemoglobin molecules, which leave them rigid and curved. The sickle-shaped red blood cells can't carry as much oxygen to your tissues as normal red blood cells can. They may also become stuck in your blood vessels, blocking blood flow to your organs.**

- ▶ **White blood cell disorders**
- ▶ **White blood cells (leukocytes) help defend the body against infection and foreign substances. White blood cell disorders can affect your body's immune response and your body's ability to fight off infection. These disorders can affect both adults and children.**
- ▶ **Lymphoma**
- ▶ **Lymphoma is a blood cancer that occurs in the body's lymphatic system. Your white blood cells change and grow out of control. Hodgkin's lymphoma and non-Hodgkin's lymphoma are the two major types of lymphoma.**
- ▶ **Leukemia**
- ▶ **Leukemia is blood cancer in which malignant white blood cells multiply inside your body's bone marrow. Leukemia may be either acute or chronic. Chronic leukemia advances more slowly.**

## Anemia.



## Leukemia



# Conclusion

## ▶ Blood Diseases

- ▶ Your blood is living tissue made up of liquid and solids. The liquid part, called plasma, is made of water, salts and protein. Over half of your blood is plasma. The solid part of your blood contains red blood cells, white blood cells, and platelets.
- ▶ Blood diseases and disorders affect one or more parts of the blood and prevent your blood from doing its job. Many blood diseases and disorders are caused by genes. Other causes include other diseases, side effects of medicines, and a lack of certain nutrients in your diet. Common blood disorders include anemia and bleeding disorders such as hemophilia.



▶ **Thanks for your attention!!!**