

Anemia is a blood disorder in which the blood has a reduced ability to carry oxygen. This can be due to a lower than normal number of red blood cells, a reduction in the amount of hemoglobin available for oxygen transport, or abnormalities in hemoglobin that impair its function. When anemia comes on slowly, the symptoms are often vague, such as tiredness, weakness, shortness of breath, headaches, and a reduced ability to exercise. When anemia is acute, symptoms may include confusion, feeling like one is going to pass out, loss of consciousness, and increased thirst.

Anemia can be caused by blood loss, decreased red blood cell production, and increased red blood cell breakdown. Anemia can also be classified based on the size of the red blood cells and amount of hemoglobin in each cell. If the cells are small, it is called microcytic anemia; if they are large, it is called macrocytic anemia; and if they are normal sized, it is called normocytic anemia.

Treatment depends on the specific cause. Certain groups of individuals, such as pregnant women, can benefit from the use of iron pills for prevention. The use of blood transfusions is typically based on a person's signs and symptoms. Erythropoiesis-stimulating agents are only recommended in those with severe anemia.

Anemia is the most common blood disorder, affecting about a fifth to a third of the global population Iron-deficiency anemia is the most common cause of anemia worldwide, and affects nearly 1 billion people. This condition is most prevalent in children with also an above average prevalence in elderl and women of reproductive age (especially during pregnancy).

A person with anemia may not have any symptoms, depending on the underlying cause, and no symptoms may be noticed, as the anemia is initially mild, and then the symptoms become worse as the anemia worsens. A patient with anemia may report feeling tired, weak, decreased ability to concentrate, and sometimes shortness of breath on exertion.

Anemia is typically diagnosed on a complete blood count. Apart from reporting the number of red blood cells and the hemoglobin level, the automatic counters also measure the size of the red blood cells by flow cytometry, which is an important tool in distinguishing between the causes of anemia. Examination of a stained blood smear using a microscope can also be helpful.