

Anemia of chronic disease, also called the anemia of inflammation, is a condition that can be associated with many different underlying disorders including chronic illnesses such as cancer, certain infections, and autoimmune and inflammatory diseases such as rheumatoid arthritis or lupus. Anemia is characterized by low levels of circulating red blood cells or hemoglobin, the part of red blood cells that carries oxygen. Anemia of chronic disease is usually a mild or moderate condition. In mild cases, anemia may not be associated with any symptoms or may cause fatigue, paleness of the skin (pallor) and lightheadedness. The underlying mechanisms that cause anemia of chronic disease are complex and not fully understood. Anemia of chronic disease varies in severity from one person to another. In most cases, anemia is usually mild or moderate. Affected individuals may develop a variety of symptoms such as fatigue, paleness of the skin (pallor), lightheadedness, shortness of breath, a fast heartbeat, irritability, chest pain and additional findings. These symptoms may occur in any individual who has a comparable degree of anemia. In most cases, the symptoms associated with the underlying disease usually take precedent over the mild or moderate anemia symptoms. In rare cases, anemia of chronic disease can be severe and cause more serious complications. Anemia of chronic disease affects males and females in equal proportion. Individuals of any age who have a chronic, inflammatory condition can potentially develop the condition. The exact incidence of anemia of chronic disease is unknown and some researchers believe that it is underreported or often goes unrecognized. Anemia of chronic disease is believed to be the second most common cause of anemia in the United States after iron-deficiency anemia. A diagnosis of anemia of chronic disease is made based upon identification of characteristic symptoms, a detailed patient history, a thorough clinical evaluation and a variety of specialized tests. Such tests can measure the levels of certain substances in the body including hemoglobin levels, the levels of iron in the serum, total iron binding capacity, overall red blood cell count, or normal or increased levels of ferritin in the blood. Ferritin is a protein that binds to iron and is used as an indicator of the body's iron stores in the blood plasma. Another test that may be performed measures transferrin saturation. Transferrin is a protein that is involved in the transport of iron from the intestines into the bloodstream. Methods to allow the reliable measurement of hepcidin in plasma have been developed but are not available or approved for use in the diagnosis of anemia of chronic disease at present.