
Hemolysis

Hemolysis is the disruption of erythrocyte membranes, which causes the release of hemoglobin. Hemolysis is also defined as erythrocyte necrosis and occurs at the end of every erythrocyte's life.

Causes of Abnormally High Levels

In vivo hemolysis is present in conditions called hemolytic anemias. Causes of hemolytic anemias include:

1. Immune-mediated erythrocyte destruction: Neonatal isoerythrolysis, incompatible blood transfusion, drugs including penicillin and heparin.
2. Hemoparasites: Babesia spp.
3. Other infectious agents: Leptospira, Ehrlichia, Clostridium, equine infectious anemia virus.
4. Chemicals and plants: Red maple, Phenothiazine.
5. Hypophosphatemia.
6. Liver failure: Hemolytic syndrome in horses with liver disease.

hemolytic transfusion reaction

A hemolytic transfusion reaction is a serious complication that can occur after a blood transfusion. The reaction occurs when the red blood cells that were given during the transfusion are destroyed by the person's immune system. When red blood cells are destroyed, the process is called hemolysis. There are other types of allergic transfusion reactions that do not cause hemolysis

Causes : Blood is classified into four different types: A, B, AB, and O.

Most of the time, a blood transfusion between compatible groups (such as O+ to O+) does not cause a problem. Blood transfusions between incompatible groups (such as A+ to O-) cause an immune response. This can lead to a serious transfusion reaction. The immune system attacks the donated blood cells, causing them to burst.