

Haptoglobin

Happy-goblin

Haptoglobin is a protein that binds extracellular hemoglobin, which helps to protect hemoglobin from oxidative stress. Low serum haptoglobin indicates increased hemolysis intravascular, which can be seen in paroxysmal nocturnal hemoglobinuria.

Procalcitonin

Pro-cow-throne

An increased procalcitonin serum can be seen in infections caused by bacteria, and it does not increase in viral infections. In normal conditions, procalcitonin is secreted by the thyroid gland's parafollicular (C cells).

C-Reactive Protein

C-Reaction Protein-ribbon

C-reactive protein is a part of positive acute phase reactants and acts as an opsonin, promotes phagocytosis, and fixes complement. It is commonly checked as a nonspecific sign of continuing inflammation.

Alpha-1 Antitrypsin

Afro (1) Wand Ant-tie Trips-sun

Alpha-1 antitrypsin works by protecting cells from neutrophil elastase activity. It can be seen as low in certain conditions, such as hepatitis, liver cirrhosis, and panacinar emphysema.

Negative (Downregulated)

Albumin

Album-man

Albumin is a part of the negative acute phase reactants, which means that albumin reduces in acute inflammation. This is caused by the reduced production of the liver, as well as proteolysis. Albumin production in acute-phase reactions decreased to conserve amino acids for positive acute-phase reactants.

Transferrin

Train-fern

Transferrin is a part of the negative acute phase reactant, which is internalized by macrophages to sequester iron.

Transthyretin

Train-thigh-red-tin

Transthyretin is a part of the negative acute-phase reactant known as prealbumin, and its production decreased to conserve amino acids for positive acute-phase reactants.

Systemic Manifestation

Fever

Fever-beaver

Acute phase reactants action will cause fever due to its inflammation process. Fever is the classical manifestation seen in patients.

Leukocytosis

Luke-side-toe

The rise of acute phase reactants can cause leukocytosis.