



Estimation of serum iron

Serum iron - measures the level of iron in the liquid part of your blood. Ferritin - measures the amount of stored iron in your body. Ferritin is the main protein that stores iron, especially in the liver and the bone marrow (the inside cavity in bones, where blood cells are made) . Serum iron test—measures the level of iron in the liquid portion of the blood. Transferrin test—directly measures the level of transferrin in the blood. Transferrin is the protein that transports iron around in the body. Under normal conditions, transferrin is typically one-third saturated with iron . Iron level in blood plasma is affected by many physiological and pathological conditions Only 0.1% of the total iron is present in the blood plasma , thus its assessment should be rather sensitive, precise, and rapid

Causes of high iron level in the body :

When iron level are too high, it could indicate that a person is consuming too much iron. High iron levels can also occur if a person has a disease called hereditary hemochromatosis. Additional causes of high iron counts include: chronic liver disease, including liver cirrhosis, liver failure, and hepatitis. Abnormally high iron serum levels may mean you've consumed too much iron, vitamin B-6, or vitamin B-12. High levels of iron may indicate: hemolytic anemia or hemolysis: your body

doesn't have enough healthy red blood cells. liver conditions: such as hepatic necrosis (liver failure) and hepatitis.

The Normal level of iron level in body

Normal value range is: Iron: 60 to 170 micrograms per deciliter (mcg/dL), or 10.74 to 30.43 micromoles per liter (micromol/L) Total iron binding capacity (TIBC): 240 to 450 mcg/dL, or 42.96 to 80.55 micromol/L. Transferrin saturation: 20% to 50

The normal range for men is 13.5 to 17.5g/dL. For women, the normal range is 12.0 to 15.5g/dL

symptoms of high iron level in the body

- weakness.
- weight loss.
- abdominal pain.
- high blood sugar levels.
- hyperpigmentation, or the skin turning a bronze color.
- tiredness or fatigue.

Prevention of high iron content in the body

- Reducing your intake of iron-rich foods, such as red meat
- Donating blood regularly
- Avoiding taking vitamin C with foods that are rich in iron

Foods that reduce iron in the body

Grains, beans, nuts, and seeds

All grains, legumes, seeds, and nuts contain phytic acid, or phytate, which reduces iron absorption. Eating foods high in phytates, such as beans, nuts, and whole grains, reduces the absorption of nonheme iron from plant foods. As a result, it may reduce total iron levels in the body .

Iron deficiency anemia signs and symptoms may include:

- Extreme fatigue.
- Weakness.
- Pale skin.
- Chest pain, fast heartbeat or shortness of breath.
- Headache, dizziness or lightheadedness.
- Cold hands and feet.
- Inflammation or soreness of your tongue.
- Brittle nails.