<html><iframe width="560" height="315" src="https://www.youtube.com/embed/TwJ0Dul2-lc" title="YouTube video player" frameborder="0" allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-picture; web-share" allowfullscreen></iframe></html>

see also Heme

Iron absorption occurs primarily in the small intestine, where iron is absorbed from the lumen of the intestine into the enterocytes, the cells lining the intestine. Iron can be found in two forms in the diet: heme iron, which is found in animal products, and non-heme iron, which is found in plant-based foods and supplements.

Heme iron is more easily absorbed than non-heme iron because it is bound to hemoglobin and myoglobin, which are easily broken down by digestive enzymes. Non-heme iron, on the other hand, must be converted to a more absorbable form by stomach acid and digestive enzymes before it can be taken up by the enterocytes.

Iron absorption is influenced by a variety of factors, including the form of iron in the diet, the presence of other nutrients that affect iron absorption (such as vitamin C and calcium), and the body's iron status. Iron absorption is increased when the body is deficient in iron, while it is decreased when iron stores are high.

Iron absorption is regulated by a hormone called hepcidin, which is produced by the liver in response to high levels of iron in the body. Hepcidin binds to a protein called ferroportin, which is responsible for transporting iron out of the enterocytes and into the bloodstream. By binding to ferroportin, hepcidin reduces the amount of iron that is absorbed from the diet, helping to prevent iron overload.

Iron is primarily absorbed in the small intestine and transported throughout the body bound to the protein transferrin. Iron can also be stored in the body in the form of ferritin or hemosiderin, which are found primarily in the liver, spleen, and bone marrow. When the body needs more iron, it can release stored iron from these sites.

The regulation of iron metabolism is a complex process that involves several proteins and pathways. One important protein involved in iron metabolism is hepcidin, which regulates the absorption of iron in the small intestine and the release of stored iron from the liver and spleen. Another important protein is the transferrin receptor, which is responsible for transporting iron into cells.

Iron metabolism can be affected by several factors, including diet, disease, and genetic mutations. Iron deficiency anemia is a common condition that occurs when the body does not have enough iron to produce hemoglobin, the protein in red blood cells that carries oxygen. Hemochromatosis is a genetic disorder that causes the body to absorb too much iron, leading to iron overload and damage to organs such as the liver, heart, and pancreas. From: https://neurosurgerywiki.com/wiki/ - **Neurosurgery Wiki**

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