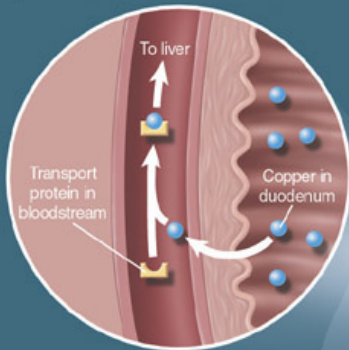


# Copper's Beneficial Role in the Body

## Copper as the essential nutrient:

After copper is ingested, it is absorbed in the stomach and small intestine. It is absorbed from the stomach and small intestine to the bloodstream. In the bloodstream it is bound to carrier proteins and is delivered to the liver. From the liver, it is distributed throughout the body to places where it is needed.



**The brain:** Copper is crucial for the normal formation of the brain and nervous system. It also plays a role in making neurotransmitters, the chemical messengers that facilitate communication between nerve cells, and the movement of electrical impulses along nerves.



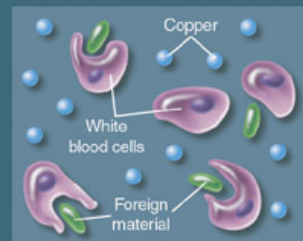
**The blood vessels and heart:** Copper helps to sustain the elasticity of blood vessels, which allows maintenance of proper blood pressure. The aorta—the main artery that runs from the heart, and the largest in the human body—cannot function fully if its elastic framework is weakened. Since copper is needed for healthy muscle tone and function, it also plays a vital role in the heart.



**The bone:** Copper's vital role in collagen formation is crucial for bone formation, health and repair. Collagen is the primary factor for the rigidity, mechanical strength and competence of bone. In fact, animal studies show that bone fractures, skeletal abnormalities, and osteoporosis occur with copper deficiency.



**The skin:** Copper plays an important role in collagen formation, a connective tissue in the skin. Collagen is the most prevalent protein found in human skin and is important in maintaining our appearance—supple, healthy appearing, wrinkle-free skin—on our faces and all other areas.



**The immune system:** Copper is necessary for the maintenance of a healthy immune system to ward off germs and diseases. A strong and aggressive supply of germ-fighting soldiers, including white blood cells (engulf foreign material), antibodies (protein molecules), cytokines (chemical messengers), B lymphocytes (produce antibodies) and T lymphocytes (immune cells), keep the body healthy and disease-free.