

Improve Your Health With Magnesium

Recent studies have found the importance of magnesium as a nutrient and its impact on general and heart health. Nutritional magnesium is deeply involved in the production of energy, the uptake of oxygen, the function of the central nervous system, the balance of electrolytes, the metabolism of glucose, and the activity of muscles, including the heart. When magnesium's importance in the heart muscle is closely examined, the microscope is necessary, as it gets right down to the cellular and molecular levels.

Magnesium has an essential role in many of the functions of energy production and is an integral part of the energy and protein molecules, without which the heart would not have the proper energy to contract and relax. Magnesium is also essential in the construction of the cell membrane, as the heart is composed of cells and the magnesium plays a role in the strength of the heart muscle itself.

When magnesium levels begin to get too low the body will try to adapt, but the basic functions of energy production and cell structure are affected. Without enough magnesium, the cell is unable to keep the proper number of high-energy molecules that is needed to function properly. It doesn't just end there though, as just about everything starts to go once magnesium falls below a certain level, and then cellular damage can result. Sodium balance and electrolyte balance also start to change, while the cell is unable to have a fully integrated membrane system due to magnesium deficiency, calcium and sodium start to rush into abnormal areas for the muscle cells which can cause cellular damage.

If a person is not getting adequate magnesium, they may go into a marginal state, which can be taken to a depleted state with a certain trauma or excessive physical, emotional, or mental stress. This depleted state can manifest as hypertension, high cholesterol, heart disease, and possibly even a heart attack. Magnesium requirements increase during times of stress which include exercise, mental and emotional issues, high noise, chemical toxins, and others. Requirements for magnesium also rise during healing from a bodily trauma such as an injury or operation.

A low magnesium condition can be worsened by a high intake of calcium, as calcium can not be optimally utilized without the proper balance of magnesium, and a high calcium intake without magnesium will cause further drainage of any magnesium reserves. Although calcium is necessary at the cellular level for muscles to contract, nerves to fire, and hormones to be produced and released, too much calcium and too little magnesium is a disaster. Another problem related to heart health is cholesterol, a fatty substance found in many areas of the body. Since cholesterol has gotten such a bad name, many people do not know that it is actually produced in all cells naturally and is important for proper bodily functions.

Finally, one of the reactions that are involved in cholesterol production is called rate-limiting reaction, as it keeps control of the amount of cholesterol manufactured. The rate-limiting reaction requires magnesium, which can cause cholesterol to continue to be manufactured beyond the cells control if magnesium is unavailable, resulting in cholesterol buildup. As you can see, magnesium is vital to the body and if not obtained from your diet, should be supplemented through a vitamin supplement from a health food store. For more information on magnesium and its healthful effects on the body, feel free to contact your local health food store.

About the Author

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