

## **Multiple Sclerosis and Nutrition**

Multiple sclerosis (abbreviated MS) is a chronic inflammatory disease in which the fatty myelin sheaths around the brain and spinal cord are damaged, leading to scarring as well as a broad spectrum of signs and symptoms. The disorder onset typically occurs in young adults and typically more in women than men.

MS affects the ability of the nerve cells in the brain and spinal cord to communicate with each other; the myelin sheath damage slows down or blocks messages between the brain and body. The body's own immune system attacks and damages the myelin. Although the mechanisms of MS are studied deeply, the cause of this disorder still remains unknown. Theories suggest that MS could be brought on by genetics, infections or different environmental stressors such as pollution or excessive antibiotic use. MS takes several forms, with new symptoms occurring either in discrete attacks (relapsing forms) or slowly accumulating over time (progressive forms). Between attacks, symptoms may go away completely, but permanent neurological problems often occur, especially as the disorder advances.

There is no known cure for MS, the goal of treatment is to return to normal function after an attack, prevent future attacks and prevent disability. Some patients report that MS medications are poorly tolerated and they often turn to alternative holistic methods of treatment through nutrition and lifestyle. With any disorder or disease nutrition is a key component in managing symptoms and can lead to a better quality of life.

### **Magnesium**

Some studies suggest that patients with MS could be deficient in Magnesium; magnesium can be found in pumpkin seeds, salmon, beans, halibut, and spinach. Signs of magnesium deficiency are similar to those of MS, which include, muscle spasms, weakness and twitching. Magnesium deficiency can also be caused by a diet high in grains, such as wheat. Wheat has phytic acid which binds magnesium making it unavailable to the body. Wheat does not grow in tropical countries therefore it is not a staple food in those countries; interestingly MS is not common in tropical countries.

### **Gluten Intolerance**

Gluten intolerance has also been implicated in MS, and MS has been shown to occur more frequently in countries with diets higher in gluten. Sources of gluten include wheat, bread, pasta, tortillas, and most baked goods. Gluten intolerance can lower absorption of nutrients including magnesium. MS is uncommon in Asian countries like China and Japan, where the main starch is rice, which does not contain gluten.

## **Vitamin D deficiency and the importance of omega 3 fatty acids**

A vitamin D deficiency has been apparent in studies with animals that have MS. Data also shows that many people with MS have also been found to be low in vitamin D. The sun is a major source of vitamin D and MS is less common in areas with lots of sunlight exposure. MS is also less common in areas where fish is commonly eaten. Fish oils are another major natural source of vitamin D and omega 3 fatty acids. Omega 3 fatty acids have been a focus showing numerous benefits for those treating MS.

## **Vitamin B-12 and vitamin K deficiencies**

Vitamin B-12 and vitamin K are other common deficiencies in those who suffer from MS. Malabsorption of vitamins and minerals can occur for many reasons a common reason is lack of helpful intestinal bacteria to help digest and breakdown foods. Lack of healthy bacteria can be a result of overuse of antibiotics, which destroy beneficial bacteria, microflora needed to synthesize vitamin K.

## **Summary**

In conclusion chronic disorders are not caused by one thing but an accumulation of several things. Science has shown many different nutrients are needed for myelin sheath health and production, such as vitamin D, and essential fatty acids. One thing that has been proven is many people who have MS are also deficient in several nutrients and the beneficial intestinal flora. This logically explains the symptoms of MS and highlights the importance of a well balanced diet rich in nutrients. A diet low in saturated fats, high in fiber (from non-gluten sources), rich in omega 3 fatty acids is recommended for those who are treating MS.

Exercise can ease the symptoms of MS, but in order to be successful certain precautions need to take place. Do not overdo it, the phrase, "no pain no gain" does not apply to people with MS, this mentality is actually counterproductive. A physical therapist or your doctor can recommend an appropriate workout program that will meet individual needs.