

# 5 B's That Can Help Reduce Numbness and Tingling in Your Arms and Legs

So many times, we watch television, read the paper, or hear from a friend about nutrition and/or supplements. There are multiple stories about how good or how bad these naturally occurring elements can be. Often times, it leaves many of us dazed and confused. So at what point can nutrition or supplements help reduce or even eliminate your condition? Peripheral Neuropathy (PN) is a condition caused by damage to the peripheral nervous system. Symptoms can be described as burning, numbness, tingling, pins and needles, swelling, pain, weakness, electric shocks, and throbbing. There are many possibilities, root causes, for the damage that can occur to nerves in the body. Many people have seen relief through nutrition and dietary changes.

## **Thiamin (B1)**

The first of the B vitamins is B1 (thiamin). Thiamin is important for several bodily functions such as carbohydrate metabolism as well as heart and nerve function. Nerve processes and their responding tissue (muscle) rely on Thiamine. It is also important for the transmission of certain signals from the brain to the spinal cord. Deficiencies in B1 are usually seen in people who consume polished rice and/or are alcoholics. Polishing usually involves removing the brown coat, which contains thiamine.

## **Riboflavin (B2)**

B2 or Riboflavin is important in carbohydrate and amino acid metabolism. It also helps keep the integrity of the mucous in the mouth. Deficiencies are rare and usually found in people with malnutrition or serious chronic illnesses. B2 deficiencies are usually seen with other B vitamin deficiencies. Symptoms may be seen as burning in the feet. Supplementation is found with proper eating or with taking a B complex and usually the same food source as thiamine.

## **Pantothenic Acid (B5) and Pyridoxine (B6)**

B5 (Pantothenic Acid) and B6 (Pyridoxine) are both important in amino acid production. They also play a role in many other metabolic pathways. B5 is an essential nutrient that helps form Co-Enzyme A to help with carbohydrate, fat, and protein metabolism. B6 helps with release stored glucose from glycogen, thus aiding with regulation of blood glucose levels. High glucose levels have been associated with diabetic neuropathy. B5 and B6 deficiencies are considered with known alcoholics and individuals with a poor diet or malnutrition. It is important to note that increase levels of B6 may also contribute to peripheral neuropathy.

## **B12**

Vitamin B12 deficiencies (anemia) can be another cause of peripheral neuropathy. B12 is a water-soluble vitamin found in different types of food such as meat, eggs, shellfish, and dairy. Vitamin B12's primary function is to maintain the integrity of nerves, formation of red blood cells, and the synthesis of DNA. B12 is release from protein by hydrochloric acid in the stomach during digestion. Once the process is complete, B12 is bound to intrinsic factor (IF) and then absorbed in the blood stream. A disruption in this process cause nerves to lose their integrity. When evaluating a person a practitioner will consider many factors. Some of the more common are found by looking at dietary habits, lifestyle (stress), and gastrointestinal (GI) function.

## **Does your diet make you a candidate?**

Vegetarians are prone to B12 anemia due to lack meat in their diet. There is B12 found in some vegetation like fermented soy products, seaweed, and spirulina (algae) however is thought to

have no bioavailability to human absorption. They will often need to supplement this vitamin to their diet. Stress in this country is an epidemic that often leads to a decrease in stomach acid production and/or malabsorption within the GI. Finally, bacterial overgrowth and parasites could lead to disruption of the GI system and to B12 deficiencies.

**There are many types of supplements and pills.** One should make certain that their dietary intake is adequate. This should include whole foods, such as meat and vegetables (green leafy) and the lack of processed foods. Processed food are usually stripped of nutrition and then fortified (sprayed) with vitamin and minerals.

When considering supplementation to your diet, **it is important to have a healthcare practitioner evaluate your condition** to determine which supplement would be advantageous. Supplementation can be provided through foods, pills, liquids, or even injections. As mentioned previously, several factors cause a deficiency. A practitioner may consider different types of testing such as B12 (urinary Methylmalonic Acid) or B6 and Folic acid through a complete blood chemistry. Evaluating GI function or finding the presents of bacteria and parasite could yield answers and solutions to someone having numbness, tingling or even burning in their hands or feet. Therefore, it is important that your practitioner find the root cause.