

The Tuesday Minute

Nutritional information.... one byte at a time

This Week's Topic

Muscle Cramps Are Commonly Mineral Deficiencies

Do you ever get the late night dance syndrome? You're in bed sleeping and all of a sudden you get a muscle cramp in your leg. You bound out of bed, and do "your own version" of dancing with the stars as you try to work out the cramp that you know is going to get worse if you don't stop it.

Cramps or muscle spasms are not limited to leg muscles. Let me share with you a personal event that happened to me about 15 years ago that got my attention as to how important minerals can be.

I woke up feeling fine but by about 9 a.m., I was feeling a cramp in my chest; and by 9:15, I was on the floor breathing slowly and had the doctor on the phone. I felt like I had an elephant on my chest. It was real scary.

Let us not forget the heart is a muscle and needs magnesium to function properly. The lungs have muscles which structurally support them and depend upon minerals to maintain structural integrity. So here I am on the floor, my wife and children are ready to call 911 or take me to the ER. I could go into the gory details but here's the abridged version.

I am on the phone with Dr. Bob Thomas, who is almost like a step dad to me. He has been certified in both anti-aging and emergency room medicine. He told me to chew about 400 mg of magnesium and see what happens.

He had shared many times how he gave people who came into the ER with heart attacks, IVs of magnesium chloride. A large percentage of them were able to go home. In fact, his ethical methods were challenged by the hospital because his patients did not need to go into intensive care compared to other ER docs. So I had a great deal of confidence in his evaluation of the situation.

I chewed 4 Mg-Zyme tablets and then slowly drank about 20 ounces of water. Mg-Zyme contains 100 mg of magnesium in the glycinate, aspartate, and gluconate forms. To my delight, the elephant got off my chest. I have not had another incident like that since. I was back to work by 10:30.

I am not saying people shouldn't go to the ER with heart issues, in fact they should. However, take some magnesium on your way to get checked out.

The point of my story is that muscles go into spasm when they don't have the correct mineral mix and in the appropriate fluid matrix. Maybe it's only a leg cramp, but if the leg muscles are low in minerals, so are the other muscles in the body like the biggest muscle, the heart.

So let's talk about some ways to get rid of and prevent cramps. Muscle cramps are commonly mineral deficiencies or dehydration. If the body is deficient in minerals, the electrical charges

necessary for healthy muscle function cannot operate. If the body is dehydrated, even if the minerals are present, they are too concentrated to allow the electrical charges to EXERT their forces. If the extra cellular fluid is too dense many of the magnetic and electrical properties of the cell and cell membrane are compromised. So have your patients divide their weight by 2 and drink that amount in ounces of water.

In terms of minerals, there are many forms of testing to assess levels. A low tech, inexpensive functional test championed by a group of naturopaths and chiropractors from the Nutritional Therapy Association is the Lowenburgs' Test. Here's the short version of the test. Place a blood pressure cuff around the belly of the calf muscle and inflate slowly, about 10 mm per pump. Ask the patient to tell you when they experience pain, or discomfort. We are not looking for pressure but a distinct discomfort.

I describe it as the moment before you think the cramp is coming. Yes, you are right. We are artificially creating a muscle cramp. If a person can withstand 200mm of pressure or more without out showing any signs of irritation, they pass the screen. But if a person experiences discomfort at less than 200mm with or without symptoms, we know there is an underlying mineral deficiency.

So you have 2 options. You can recommend a multi-mineral formula for 30 days, then retest. I like to use Osteo-B II which has a nice 1-1 ratio of calcium to magnesium as well as the support minerals necessary to facilitate bone health. I also recommend Bio-CMP, 2 tid. Bio-CMP is a formula developed for exercising athletes to avoid muscle cramps as they perspire out their minerals. It is primarily potassium with smaller amounts of magnesium and calcium.

When I get on an aggressive exercise program, I may get cramps temporarily at night. So if I am about to do the "late night dance", I get up and chew three tablets and go right back to sleep. It works like a charm.

The mineral deficiencies that generally cause cramping are magnesium, potassium, and calcium. Although sometimes phosphorous, vitamin D, and digestive support are at the core of the problem.

Remember we need adequate levels of HCl to ionize the minerals from their substrate. If patients have been on proton pump inhibitors for an extended period of time, you can expect mineral deficiencies. Supplementing multiple minerals is a shot gun approach and works much of the time.

If you prefer a more direct approach, consider neuro-lingual taste testing by some considered controversial. Patients who fail the blood pressure cuff test, taste nutrients individually to see which ones affect the muscle. Some neurologists discuss how the nerves in the mouth go directly to the hypothalamus and then give a signal to the muscles in lightning speed which allows the muscle to respond based on new stimuli. The downside of this type of testing is that it takes longer so you will need a separate appointment. I'm always amazed at the things the body wants and how fast it will respond.

On the web page I have attached an overview sheet about both tests. Included is a reference where you can get more information.

Thanks for checking in today. I'll see you next Tuesday.