

Why We Need Phosphorus

"Phosphorus is the second most abundant mineral right behind calcium."

Calcium that settles or is deposited in areas where it is "not supposed to be" is called a variety of different names. For example, excess calcium buildup on the teeth is tarter, in the joints we call it arthritis, in the bursa it's bursitis, in the lens of one's eye... cataracts. If it settles in the kidney, we have kidney stones.

You see each mineral has one or more opposing minerals that keep it in balance. Phosphorus is the second most abundant mineral right behind calcium. Phosphorus is also necessary for strong bones and teeth. Calcium and phosphorus should be in an approximate 1-1 ratio in the diet. Increasing one without the other will cause the bones and teeth to break down and dominate the depleted mineral.

So if one mineral is increased, it will displace its opposing mineral. Eventually the opposing minerals can become depleted and often the calcium will leave its suspension or liquid form and precipitate out. Some of calci-



um's opposites are magnesium, phosphorus, potassium, sodium and to a lesser extent iron.

Another piece to the "settling out" puzzle is that calcium goes into suspension in an acidic environment and precipitates out in an alkaline environment. I'm sure you've seen people drop a calcium tablet in vinegar and it dissolves. But if you add baking soda and change the pH it precipitates out. Add more vinegar and it goes back into suspension.

Herein lays the mechanism of the clinical pearls I'd like to

share. Increased or unchecked calcium will cause an accumulation of excess calcium that over time precipitates out into tissue. Following that line of thinking, if we give opposing minerals and temporarily change the relative pH to the acid side, we can assist the process and slowly mobilize calcium from the precipitated state back into suspension.

Many clinicians use liquid phosphorus to stimulate the change. Here's why. Calcium is an alkaline forming mineral and fosters the parasympathetic or slowing down process. Phosphorus is an acidic

forming mineral and stimulates sympathetic dominance. That's one of the reasons people crave soft drinks. It's not just the sugar and chemicals. A 12 oz soft drink has approximately 140 mg of phosphoric acid.

Another way to say it is, calcium is a slow mineral, meaning it calms the system. Phosphorus is a "go" mineral and has a stimulating effect. Besides its role in bones and teeth, phosphorus is an essential structural component of cell membranes.

Ever hear of phosphatidylcholine, phosphatidylserine or phosphoinositol? How about ATP, adenosine triphosphate?

Also, there are secondary messenger systems that depend on phosphorus and inositol to transmit signals from outer cell membranes to the inner parts of the cell. Nucleic acids are also dependent on phosphorus.

Let's look at some clinical indicators for phosphorus deficiencies: patients who form stones or people who get stiff after sitting for 10-15 minutes but once they get up and get moving they are fine. Leg cramps at rest where the big toe curls up or the leg turns out or pain in the front or side of the leg is also a classic need for phosphorus.

A friend and colleague, Dr. William Pollack, used to have them so bad he was almost in tears. He said they are worse than regular cramps because the big toe won't relax. They last longer than normal leg cramps and are crippling. 30 drops of Super Phosphozyme Liquid from Biotics Research will take them away almost instantly, and then use 30 drops 3 times a day.

He told me a funny story of when he was on a cruise ship and the Deputy Captain experi-

enced leg cramps nightly for 45 minutes. He gave him a bottle of Super Phosphozyme Liquid and when he tried it that night the cramps were gone in a few minutes.

Super phosphozyme is unique because it is a source of phosphoinositol. Use Super Phosphozyme 2-3 tablets, 3 times a day or Super Phosphozyme Liquid, 20-30 drops, 3 times a day. Evaluate after 60 days.

Use for reduced circulation, cramps, parasympathetic dominance, elevated RBCs, HGB or HCT, excessive secretions, thyroid hypofunction, bradycardia and when the serum calcium to phosphorus ratio is weighted to the calcium side.

By the way if the big toe curls down or if the cramp is in the back of the calf or thigh, it usually means there is a need for the alkaline minerals, calcium, magnesium and potassium. Chew Bio-CMP which stands for calcium, magnesium and potassium. 4 tablets when the cramp occurs then 2 tablets per waking hour until the problem abates.

Another indicator of a need for phosphorus is a first morning urine over 7.5. Also, if you look at a blood test and the serum phosphorus is below 3.0, it is an indicator that there is a need for HCL and even though phosphorus is being consumed it is not biologically available.

I don't know about you but I am hearing about more people with kidney stones than ever before. And with the whole world telling our patients to increase calcium, we can expect more of the same.

Thanks for reading this week's edition. I'll see you next Tuesday.