

Osteoporosis and arthritis are popular topics among the over 50 crowd. The problem is that these conditions actually begin to develop decades earlier.

Osteoporosis is a condition that is defined by a loss of calcium from the bone. Calcium is the cement of the bone and it is lost when we don't consume enough calcium in our diets and when we don't get enough weight bearing exercise. If too much calcium is lost, then the bones become brittle and can break much more easily.

The standard American diet is deficient in many nutrients, including calcium. On top of that, kids and adults alike are much more sedentary than is ideal for good bone health. As a result, our bones begin to lose calcium at an early age. This is a very slow process so it can take a number of decades for this gradual loss of calcium to result in fractures.

Fortunately, most osteoporosis can be prevented and even reversed. Prevention is easier. It simply requires increasing the consumption of calcium and other vitamins and minerals necessary for bone health. It also requires increased weight bearing activities. A weight bearing activity is any activity that puts stress on the bone that encourages the body to maintain the calcium in the bone or to add calcium should it already be depleted. Examples would be walking, running, and weight lifting. Since walking does not put stress on the arms, it would not help develop stronger bones in the arms unless weights were carried while walking.

Most osteoporosis can be reversed using the same methods, however it is a slow process and changes are often not detectable for a number of years.

There is much talk about what type of calcium is best. There are 3 basic types. Calcium carbonate is the most widely available. It is derived from sea shells or simply mined from the ground. Chalk is made of calcium carbonate. This is an inorganic form which means it is not connected to another "living" molecule. Some experts contend that calcium carbonate is not as easily utilized by the body. It can also be contaminated with heavy metals if the manufacturer does not routinely check for purity.

Another type consists of a calcium molecule attached to an amino acid. Some common forms of this type are calcium malate, calcium lactate and calcium citrate. Because they are attached to an amino acid, they may be absorbed and utilized more easily by the body.

A less common form of "bone food" is microcrystalline hydroxyapatite or MCHC. This contains the ingredients that are found in raw bone. Since bone is made of more than calcium, providing this, more complete, bone nutrient may enhance the protection from osteoporosis.

I have had a number of patients tell me that they were told that their back pain was caused by osteoporosis. This is not the case. Osteoporosis does not cause pain. If a bone fractures as a result of the weakened state caused by osteoporosis, then of course the fracture will be painful, but the condition of osteoporosis is itself painless.

Osteoarthritis can cause back pain and sometimes the two conditions are confused. I will discuss arthritis in my next column.