

THE IMPORTANCE OF CURVES

Did you ever notice that there are very few straight lines in Nature? Pine trees grow very straight as do your arms and legs. Crystalline structures like ice or quartz, when viewed under a microscope, have straight lines too but when you look at these structures in cross-section you see they are circular in shape as well. Eggs, seeds, fruit, teeth and claws are round or have curves in them.

Why? Because curves distribute stresses very well over their entire area and are less prone to breakage. They are also more efficient in holding volumes of anything. A cube shape holding a gallon of water will require more surface area than a sphere shape holding the same volume, and the sphere will be a lot stronger. Try holding a raw egg in your palm and steadily squeezing it tighter and tighter. It is almost impossible to break. If the shell was shaped like a cube it would be very easy to break in your hand. Curved shapes also allow for flexibility and absorb shock well.

Let's take a look at the human spine as an example of how curves provide strength, flexibility and shock absorption. This curved shape of the spine accommodates and protects the organs too.

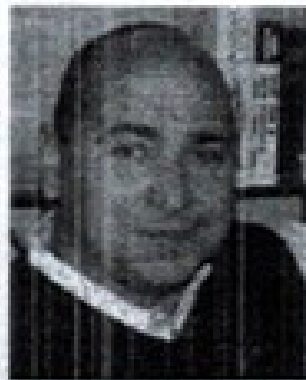
The spine has four curves: two to the front and two to the back and alternate front-back-front-back. The curve in the neck is to the front and transitions toward the back at the base of the neck. Going down the back it shifts again toward the front at the level of the navel and again

quickly reverses at the sacrum, where it re-curves forward once more at the coccyx. This double 'S' shape of the spine acts like a big, strong spring. When we walk, run, jump or lift things, the spine smoothly compresses and decompresses, evenly distributing and dissipating the energies.

Imagine a 15-pound bowling ball sitting on a spring large enough to hold it. If we press down on the ball the spring accommodates the stresses by moving underneath. Now imagine the same 15-pound ball with only a broomstick supporting it. The downward forces will be sharply focused, poorly absorbed and, if great enough, will break the stick. This is how the spine gets when we have misalignments of the vertebrae – and all of us do. The spine loses its curves, its flexibility and thus its ability to absorb shock, making us much more prone to injury.

Now we can see why Nature chooses curves when she makes things and why the human body is capable of taking so much punishment. Because of our design we are very, very tough. But we must maintain the normal function of our spines if we are to be healthy and protected. The best place to start is to contact your local chiropractor for an evaluation.

Dr. Derek Conte is co-founder of Chiropractic Specialists in Smyrna on Concord Rd. and is available to speak to your school or group. For questions, call: 404-784-6008.



Dr. Derek Conte