



October 4, 2016 – Grand Rapids, MI

Why Bones Need Stress

Something unusual happened during a recent run: I fell. Nothing serious, just a few scrapes and a sprained wrist. It got me to thinking that I haven't talked about bones in a long time; there are 206 of them in adults, and they have to last us our entire lifetime. This week's messages are all about bones. I'll approach it from a different way than you can find by doing an Internet search.

The critical thing to understand is that bone is live tissue. We tend to think of it as something solid, and it is. But bone tissue is always undergoing change; some cells are growing while others are being reabsorbed. While the reasons bone tissue increases and decreases are a complex interplay of factors related to nutrition, hormones, age, and genetics, there's one factor that's universal: bone responds to how it's used.

Wolff's Law of Bone states that the bones in a healthy person will respond to the stresses placed on it. When I taught this in anatomy class, I made it even simpler: function determine structure. The bones reflect our jobs and our activities, including exercise. Simply put, if you want strong and healthy bones, you have to find a way to stress them on a regular basis. But I wouldn't recommend falling as a way to stress your bones.

More about bones on Thursday.

What are you prepared to do today?

Dr. Chet



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