

## Bone Spurs And My Back?

**What are they?** Bone spurs or [osteophytes](#), are bony projections that form off of the bones of the spine, (vertebra) and joints of the extremities, (shoulders, elbow, wrists, hip, knee, ankle and foot).



**Why do they form?** They are the bodies attempt to increase the surface area of that particular bone to help distribute the weight or load across a joint that has been damaged by arthritis.

**How about some science?** Okay! This bony response is referred to as: [Wolff's law](#). It is a theory developed by the German anatomist and surgeon Julius Wolff (1836–1902) in the 19th century, that states that bone in a healthy person or animal will adapt to the loads under which it is placed. If loading on a particular bone increases, the bone will remodel itself over time to become stronger to resist that sort of loading. The internal architecture of the [trabeculae](#) undergoes adaptive changes, followed by secondary changes to the external cortical portion of the bone, perhaps becoming thicker as a result. The inverse is true as well: if the loading on a bone decreases, the bone will become weaker due to turnover, (think [osteoporosis](#)), it is less metabolically costly to maintain and there is no stimulus for continued remodeling that is required to maintain bone mass.

### So what causes this?

**Gravity:** The simple fact that the core of the earth constantly pulls on you (9.80665 [m/s<sup>2</sup>](#) or 32.1737 [ft/s<sup>2</sup>](#)).

**Time:** The longer you are alive the more weight or load your bones have to support. Rarely do I see an x-ray of someone over 40 WITHOUT bone spurs.

**Repetitive micro-trauma:** This is the cumulative effect of everything you do, what I call the activities of daily living; work, play, even just sitting on the couch.

**Trauma:** Any major accidents (car, falling down, etc.) can be the beginning.

**The consequences?** Bone spurs typically limit joint motion, which leads to: tight muscles, adhesion build-up and trapping of chemical fluids, all of which can lead to acute or chronic joint and muscle pain.

### What to do?

**Chiropractic adjustments:** Surprise! Routine care is the best way to maintain proper joint motion and decrease the risk of bone spur formation and/or slow the progression.

**Stretching/exercise:** Motion, motion, motion. Keep your joints healthy with daily activity, avoid long episodes of sitting or standing.

**Keep the weight off:** Fewer pounds = less stress on the bones = fewer bone spurs.