

Top 5 Reasons Our Patients Benefit From Instrument Adjusting / Manipulation

Instrument Adjusting has grown to become one of the most commonly used techniques in today's Chiropractic Practice, second only to Diversified type manual spinal manipulation (National Board of Chiropractic Examiners Survey, 2000). From ease of use to added patient safety, adjusting instruments provide a new dimension to Chiropractic Practice. Likewise, Instrument Adjusting has expanded the range of conditions and patients that can now be more easily managed with Chiropractic Care.

So, why all the buzz about Instrument Adjusting? Here are the top five most popular reasons why the Drs. Loechinger have incorporated Instrument Adjusting into our practice.

1. Mechanical Advantage - Adjusting instruments were developed to provide a mechanical advantage for efficient Chiropractic Adjustments. Biomechanically speaking, adjustments are delivered to move the bones of the spine and extremities. If there were a way to move vertebra the same amount as manually, but with less force, would you be interested? ... of course.

Newton's Second Law is "*force equals mass times acceleration*". Adjusting Instruments take advantage of the acceleration part of the equation in providing accelerations with a substantially smaller mass. In contrast, to achieve force, manual adjustments require the use of more mass (weight) due to our physical limitations in achieving accelerations. Increasing the speed component of chiropractic thrusts has been found to be associated with the elicitation of neuromuscular reflexes thought to be related to the mechanisms underlying successful treatments. Instrument Adjustment speed also allows The delivery of thrust faster than the patient's natural tendency to tighten up and resist the adjustment.

2. Stress - Another consideration among the mechanical advantages of Instrument Adjusting. In continuum mechanics, stress is a measure of the average amount of force exerted per unit area, where stress equals force divided by area. When we contact the spine with our hand, the surface area over which the force is produced is relatively large compared to the stylus of an Adjusting Instrument. Adjusting Instruments achieve an appreciable thrust to the spine, while keeping forces relatively low due to their small contact area with the patient. By having such a small surface area contact, less force is required to achieve the same stresses that are imparted to the spine with manual adjustments. Appreciating the concept of stress together with the understanding of the high accelerations achieved with instrument adjusting, it's easy to understand how studies have shown that the same amount of intersegmental bone and joint movement can be achieved with instrument adjusting as opposed to manual techniques.

3. Safety - Chiropractic Adjustments are extremely safe. Still, there are instances where there is a concern of manually adjusting a particular patient. The Doctor may not want to provide higher forces of manual adjustments to an elderly patient with osteoporosis. Maybe The Doctor doesn't want to impart rotatory cervical spine adjustments to a patient with dizziness or signs of cerebrovascular disease. Low force instrument adjusting techniques can be delivered in the prone neutral position, thus enabling manipulation with peace of mind.

4. Evidence-Based Care - Studies have found Instrument Adjusting to be equivalent to manual adjusting techniques. In a number of clinical trials, instrument adjusting fared just as well as manual adjusting in reducing pain and improving function in pain patients seeking Chiropractic Care. Ongoing research into the basic science and clinical study of Instrument Adjusting has quantified vertebral motions, electromyographic responses, and neurophysiological responses associated with instrument adjusting.

And; the Impulse Adjusting Instrument is not only faster than manual manipulation, but also the Doctor can target just the right areas specifically with the tip of the stylus.

5. Easier on The Patient - Because of the extreme speed and lower forces generated with Instrument Adjusting, the adjustments are easier on the patient. This equates with less side effects, such as muscle soreness and increased pain during or after treatment. Adjustments that are easier on the patient increase patient satisfaction.