

Ergonomics: The Cornerstone of Self-Care for Chiropractors

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Chiropractors share an irony with many health care practitioners - the physical demands of their work place them at risk for the same musculoskeletal disorders (MSDs) they treat in their patients. For some of us, the first injury occurs before our careers even begin. Students in chiropractic college can suffer upper-extremity injuries from [repetitive adjusting techniques](#) performed before they have the necessary endurance to handle the workload or the experience to use techniques that require the minimum amount of effort.¹ Students [may also suffer from spinal injuries](#) when receiving adjustments from their equally inexperienced classmates.² Unfortunately, a prior musculoskeletal injury is one of the strongest predictors of future injury.³ As a result, some chiropractors may begin their careers predisposed to the same types of injuries they have just been trained to treat.

An elevated risk for injury appears to continue through the first five years of practice, also likely due to a relative lack of experience. The most common sites of injury practitioners report are the wrist and hand, shoulder, and low back.⁴ Adjusting the thoracic and lumbosacral spine, particularly when the patient is side-lying, is associated with an increased risk of injury.⁴ It is interesting to note that occupational MSDs in health care occur not because of an isolated event like an accident, but instead as a result of activities that are a regular part of the job.



This is not to imply that work is the sole cause of these injuries. Off-work activities can expose manual practitioners to some of the same types of injury risk factors - forceful exertions, awkward postures and repetitive motions - that work can. Personal risk factors such as age, physical condition and even emotional well-being can all help determine our susceptibility to injury.³

If MSDs result from a number of different risk factors, including everyday work activities, then what can you do to prevent them? A comprehensive approach to identifying and eliminating or reducing risk factors at work and off-work, along with maintaining good physical and emotional health, is likely to be the most effective tactic. A key element in this approach is applying the principles of ergonomics to your practice.

As practitioners, you are probably already familiar with the concept of ergonomics - fitting the job to the worker - and you may even counsel your patients on ways they can use ergonomics in their work. But have you taken the time to apply these same concepts to your own work?

Proper Positioning

One straightforward example of ergonomics in a chiropractic practice is [adjusting table height](#) to reduce awkward bending postures while performing adjusting techniques on a patient's spine. A low table height, around 18 inches (465 mm), will result in greater muscle effort to support your upper-body weight as you lean forward, as well as greater stress on ligaments and higher compressive forces on intervertebral discs. Depending on your height, a medium table height closer to 26 inches (665 mm) may be appropriate for prone adjusting techniques working on the lumbar and thoracic regions, since this height still allows you to use the weight of your upper body to assist with the adjustment, but does

not require excessive forward bending. A higher table, around 33 inches (845 mm) high, may be more appropriate for prone cervical work, for which less force is required.⁵

It seems intuitively obvious that table height can make a big difference in the postures practitioners must assume when working, but do you always take the time to adjust your table to the best possible position? For that matter, do you have a hylo table that you can easily adjust for working on different parts of the spine, using different techniques or even accommodating different patients?

A power-adjustable table may be one of the best investments you can make in your own ergonomics, particularly since up to almost 50 percent of the purchase cost of a hylo table may qualify for an ADA tax credit. In addition to optimum table height, it's also important to have adequate space so you can work on both sides of the table, and to take the time to move from one side to the other. We all have our preferred side on which to work, but changing sides distributes the work and reduces physical stress on the upper extremity, trunk and lower extremity.

Proper Body Mechanics

Maintaining good body mechanics is also important for preventing MSDs. While we teach our patients the tenets of good body mechanics, we sometimes don't apply these rules to ourselves. Be sure to maintain neutral-spine and upper-extremity postures, whether you are working around your chiropractic table, adjusting extremities, instructing patients in rehabilitation techniques or working on your computer.

Other Considerations

An ergonomic treatment room set-up is a necessary first step toward good body mechanics. But good ergonomics and good body mechanics are not sufficient to ensure a career free of injury. Even with the best possible set-up and attention to body mechanics, it is still possible to suffer an injury due to repetition and overuse. Leaving enough time in your schedule for rest and recovery during the day, the week and over the course of the year can help you to not only avoid injury, but also have the energy left to give your last patient of the day the same level of treatment as the first.

You may notice that you use more physical effort in treating some patients than others, due to their size or the techniques you use. You might consider arranging your schedule so you see physically demanding patients during the time of day when you typically feel at your physical peak. Scheduling patients who require less demanding treatments on either side of these more challenging patients may also help you avoid overloading yourself.

Practicing a variety of modalities is also a good way to avoid injury due to overuse. Techniques such as diversified and Gonstead can place physical demands both on the practitioner and on the patient. Incorporating other techniques and tools, such as Thompson or SOT and adjusting tools, could help expand your practice and prolong your career. Investigate tools and techniques you can use for soft-tissue work as well, since soft-tissue treatment is a common cause of upper extremity MSDs in practitioners.

Consider applying these principles of ergonomics not only to your own work, but also to the work of your office staff and any other practitioners you employ, particularly massage therapists ([who have been shown to experience high rates of MSDs](#) as a result of their work).⁶ Your staff will love you for it

and your patients will receive better treatment as a result.

A good ergonomics program should be the cornerstone of your self-care program. Following the same advice you give your patients to help them stay well offers you the best chance to prevent work-related musculoskeletal injuries.

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