



SPINE CARE

Scoliosis: Finding Motion

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WHAT YOU NEED TO KNOW

- When scoliosis is rooted in a person's posture and they are fully grown adults vulnerable to progression, it is important to find whole-body balance by working with all areas closely related to the spine.
- The spine, including the cranium as well as the lower extremity areas, is rich with proprioceptors and can have a significant impact on posture expression.
- Making room for the foot in your analysis could be the missing link that leads to a better life for patients enduring scoliosis.

I remember graduating from chiropractic school and thinking I would be out doing scoliosis screenings for the next 50 years or so. Although my community outreach has gone in a different direction, I've had the chance to work with many scoliosis cases, primarily with an adult population.

While most patients were well-aware of their condition, some learned about it for the first time in our report of findings. Whether this information was new and different for them or they had known of their diagnosis much earlier, we dedicated time to learning about all the related structures and functions needed to understand the spine and how it works.

Toward a Better Understanding

I have found diagnosis itself can provide an explanation for some of the challenges one goes through living with scoliosis. More importantly, it's an opportunity to coach people beyond the *fallacy of arrival* at a diagnosis and point them to a future with more function. It is not only the patient who can adjust their mindset. The clinician will also be challenged by variations of commonly known anatomy and the presence of severe fixation commonly associated with scoliosis.

As doctors we need to consider that scoliosis is a part of the body's *intentional* expression and should not be looked at as an impediment. The doctor needs to be mindful that the body may be doing the best it can with the resources it has. When the spine is rotated, laterally flexed and fixated on purpose, the question is: Should our goal be to impose better alignment or influence the process of balance?

In fact, it's possible that working aggressively to try to reverse the scoliosis could result in a tug of war with a spine that is programmed to torque against center of gravity to maintain balance and keep breathing. This drive is 24/7, tasking the nervous systems to make posture work and maintain balance *at all times*, even if compromised. We might look at this differently in a young and developing spine versus a developed adult spine. But we must temper each individual case with the right technique.

Early on, I studied scoliosis management systems for options that might bring more value to patients. After tracking some well-known "experts" who had cycled through various techniques themselves, I realized I didn't need another adjustment for my tool bag. I instead needed the right perspective to view these unique spine patterns, which might require the use of various adjusting techniques.

When educating curious patients who are looking for a better understanding of scoliosis, we start with the idea that the spinal cord and vertebral column may be mismatched in ways that make misalignments and asymmetric movements a necessity. The bones of the spinal column may develop with even small deviations that result in uneven joining of the vertebrae, resulting in persistent misalignments and tension.

One simple and logical reaction to this pressure is for the spine to compress in a way that might compromise alignment, but reduces cord tension. So, where else can we look for areas of improvement to support the spine?

Tip #1: Adjust and Support the Lower Extremities

When scoliosis is rooted in a person's posture and they are fully grown adults vulnerable to progression, to manage these deviations in spinal curvature, it is important to be resourceful and find whole-body balance by working with all areas closely related to the spine.

The feet, which typically present with bilateral, but asymmetrical pronation, may show up with even more egregious imbalances in scoliosis cases. It can be tempting to look to heel lifts first, but I recommend inducing as much symmetry as possible by creating movement throughout the lower extremity that can be sustained and supported by functional orthotics.

Issues in the plantar vault, including motion deficiency and misalignment (locally and up the kinetic chain from the feet), can be addressed starting with the three functional arches of the foot (medial longitudinal, anterior transverse, lateral longitudinal). Some degrees of symmetry are not tolerable by the scoliosis patient, so we can serve them well to work in areas like the feet, where multiple approaches can support hands-on care, reduce global misalignment patterns, and increase pelvic stability.

It is understandable to lead with spine adjustments, taking a direct structural approach to scoliosis, but we must remember that even our adjustments, which are fractions of a person's range of motion within their normal physiological space, can echo well beyond the moment the correction is performed.

You can add to that effect through extremity adjusting and recommending the use of custom

functional, three-arch orthotics for all weight-bearing activities. This helps us offer our patients a higher standard of care.

It's easy to think of the structural deficiencies as a kind of error in a person's code, which then leads to a domino effect that results in scoliosis, but many scoliosis cases have a component driven by intuitive adaptations which helps the body maintain overall balance.

Tip#2: Address Cranial Issues

One of the things I learned from studying techniques was that the bookends of the spine, sacrum and occiput would be highly important in all patients, but potentially *more* important in scoliosis patients. This is due to the fact that they would more likely tolerate adjustments in these areas than the thoracic spine, where scoliosis complications are typically more severe; and that we would have to get more from regions of the body like they had with cranial protocols. As I learned later, we can get much more from the feet.

The spine, including the cranium as well as the lower extremity areas, is rich with proprioceptors and can have a significant impact on posture expression. In our clinic, this approach of spinal adjusting combined with extremity adjusting and, in nearly all cases, functional three-arch orthotics, has been a game changer in managing scoliosis.

In my clinical experience, light- to moderate-force adjustments as needed at the upper and lower levels of the spine, along with specific cranial adjusting, upper and lower extremity adjusting, followed by spinal pelvic stabilization through custom orthotics, has been an underutilized strategy for a suffering population.

Take-Home Points

Many people have been taught that with scoliosis, they need invasive intervention. They may not live a completely active lifestyle and as a result, may have overlooked subtle spine-related functions like breathing, balance and foot rehab; which can, through the power of proprioception, make a big difference not only in balance, but also overall brain function.

I have found that the more resourceful we are willing to be, especially in these cases, the more doors open for patients dealing with potentially lifelong subluxation patterns.

Making room for the foot in your analysis could be the missing link that leads to a better life for patients enduring scoliosis. This strategy can be combined with practically any technique to seamlessly support adjustments by not only holding alignment, but also maintaining patients in motion.

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