



CLINICAL CARE

Chiropractic Implications on Sleep

ADDRESSING SPINE-RELATED ISSUES AFFECTING NEUTRAL POSTURE AND BREATHING

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After a chiropractic adjustment, it's not uncommon for patients to bounce off the table – they feel light, move freely, breathe deeper and stand up straighter. But some days, patients say they wish they could just lie there and relax for awhile; if left to it, they just might fall asleep.

If you've ever wondered why that is, one explanation is that good sleep hygiene is a meta function composed of many factors including posture, which is the central issue today. During sleep, you lose active control of your posture and rely more on your environment (mattresses, pillows, positioning, etc.) and this has a significant effect on how well you can relax and breathe effectively.

It's not that different from breathing and CPR; correct body position (the head and neck both have to be cradled the right way) is critical for air passages to remain open. When you're sleeping, much of this is automated by your pillow, for better or worse.



When it comes to the body's activation and recovery cycles, some (like breathing) are completed in seconds, while others (like sleep) take a full day to reconcile. Your body innately "knows" what it needs and will nudge you in the right direction with cues. After you get adjusted, your body is more aware of itself and may communicate that it needs more rest and recovery. Through improved posture, chiropractic can have an influence beyond the present and on to the next night of sleep.

Focus on Spine-Related Sleep Functions

When relating the spine to health, it is prudent to coach the public to think over and above pain relief and toward proactive recovery from many forms of stress. People know very little about how to regulate their health through intentional behaviors; or the close relationship of the spine to overall quality of life. Breathing and balance are spine-related, constant, essential functions of survival, which makes expressing good posture a powerful tool.

When you're awake and in motion, you can compensate for fixation and misalignment. But when you're lying down, asleep for hours at a time, passive alignment and breathing are isolated. Again, during CPR, curvature of the neck and other alignment issues take on greater importance than usual. During sleep, you depend on passive breathing to get the oxygen you need, so for optimal recovery, you must look at head position and overall posture.

Posture is the sum total of all movements and positions you've ever been in. When you break down just one day of posture, you can see many opportunities to build health and resilience through better whole-body behaviors.

Posture relates not only back to balance while standing, but also to breathing in almost any position. So, while you, the chiropractor, can support and protect adjustments with three-arch, custom orthotics that help automate posture, guide movement and hold corrections better, they can even prevent certain subluxation patterns from ever occurring.

The same approach can be applied to poor sleep posture. When a patient stands in the wrong position, the adjustment they received goes down the tubes until we put in corrective, functional, custom orthotics that protect the adjustment. But in addition to adjusting and application of corrective orthotics, more can be done at night to improve quality of life.

In our pursuit of comfort, non-supportive generic pillows are piled up to accommodate poor posture, but this perpetuates the problem. A better complement to chiropractic care are orthopedic pillows, which can better meet the spine's normal morphological needs (round-shaped heads roll down a hill of pillows, but stay put in a structured cradle design).

Connections Between Posture & Sleep

1. A neutral resting posture, characterized by stillness and open airway, is ideal. Breathing quality is position dependent, but we tend to compromise function for comfort. Chiropractic care models can improve postural tone through subluxation correction and proper support.
2. The cranium needs 360-degree cradling to reduce motion. Simultaneously, support of the cervical spine is needed to prevent flattening of the curve and associated collapse and compromise of airway.
3. Posture functions like respiratory fitness can be optimized via active breath control and applying posture rules toward enhanced passive breathing during sleep.

Every Patient Needs to Get a Sleep-Savvy Health Assessment

We are seeing more sleep disorders without resolve, and here's why. In actuality, the typical sleep study in the diagnostic world is only a pathway to supporting and justifying distribution of CPAP devices, with little to no sleep-relevant rehab. In this approach, there's no intent for correction; people may become dependent on whatever sleep aids they are given.

As a result, there's an overreliance on both prescription and nonprescription agents. We need to embrace more intentional control of posture, breathing, balance and other sleep hygiene-related activities. We can use posture to build good sleep through exercise and active recovery.

Sleep assessments need to shift away from invasive, doctor-driven diagnostics and toward personal monitoring systems fueled by patient education through improved access to the most relevant biological data. Behavior modification represents the most sustainable avenue for sleep correction and improved quality of life.

Sleep (along with exercise, nutrition and positive thinking) is the key to maximizing both physical and psychological performance. A sleep-savvy health assessment includes:

- A complete systems review (whole-body systems / detailed patient health questionnaire)
- A complete physical examination
- Personal sleep monitoring

Applying Chiropractic Perspective to the Daily Recovery Cycle

Chiropractic care can impact these three common sleep phenomena: 1) *Obstructive Sleep Apnea* (OSA) occurs when throat muscles relax and cause a narrowing and collapse of the pharyngeal airway (think tone and fitness), resulting in snoring, gasping for air during sleep, dry mouth, morning headache, daytime sleepiness, and insomnia.

In OSA, excessive throat muscle relaxation results in hypercapnia, hypoxemia and surges of sympathetic activation. OSA can include decreased lung volume and reduced upper airway responsiveness. Heart rate increase is a necessary adaptive response when oxygen levels drop,

which can also contribute to insomnia.

2) *Central Sleep Apnea* occurs when the brain does not send proper signals to the muscles that control breathing (think nervous system subluxation/interference/disruption). 3) *Complex Sleep Apnea* is a combination of OSA and central sleep apnea.

Posture deficiencies demand regular consideration, as they can affect anyone. A common cervical-region subluxation pattern includes misalignment, fixation, forward flexion and loss of lordotic curvature. According to the majority of radiologists, this is due to "muscle spasm," but we know there can be multiple causative factors from the posture spectrum.

While there are many possible areas of sleep hygiene that people can work on, chiropractors can help them focus on an essential need by recommending the correct pillow for stabilizing sleep posture. This area of the health market is in desperate need of leadership and better guidance to help individuals meet their sleep needs. The chiropractor is the ideal person to advise patients on natural, nonprescription methods for better sleep, especially where it relates to the spine. Our unique perspective can help overcome a growing problem.

JUNE 2022