

# The chiropractic perspective on autism and sleep

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Autistic children present with a multitude of symptoms common to the syndrome. Getting to sleep, maintaining a normal sleep cycle and quality of sleep are often problematic. Many therapeutic approaches, including medications, nutraceutical supplementation, behavioral modification, development of a sleep routine, harmonic resonances, and various forms of bodywork are used with varying degrees of success.<sup>1</sup>

Caregivers of autistic children are known to suffer stress that often contributes to development of disease, reduced resilience, emotional and sleep dysfunction and other markers of poor health.<sup>2</sup> When a parent or guardian on whom the child depends loses capacity to continue to deliver adequate care, both parties suffer and decline.

When individuals are subjected to protracted stress, there is increased sympathetic tone and diminished parasympathetic tone.<sup>3</sup> When an individual is in a prolonged state of fight-or-flight, the stress on the nervous system also reduces immune responses, contributes to chronic inflammation (and, therefore, heart disease, cancer, autoimmunity, diabetes type II and cerebrovascular disorders) and impairs cognitive functions.<sup>4</sup>

There is no single treatment that stands alone in the management of symptoms of autism, rather, combined approaches act synergistically.<sup>5</sup> At Kentuckiana Children's Center, clinicians employ as a foundation of care, the chiropractic adjustment. They have found clinically that when the adjustment is added to the treatment regimen, responses to those therapies improve. Evidence of the enhancing effect of the adjustment is reported subjectively by parents, teachers, other therapists and physicians and

extended family members. Parents report improvements in autonomic processes such as sleep.

While the effects of chiropractic adjustments are subject to ongoing research, it is thought that spinal adjustments have a modulating effect on the autonomic nervous system. Mechanism of action of the effects of the adjustment were proposed by Seaman and Winterstein in 1998.<sup>6</sup> These authors conclude that "joint complex dysfunction should be included in the differential diagnosis of pain and visceral symptoms because joint complex dysfunction can often generate symptoms which are similar to those produced by true visceral disease." They demonstrate how dysafferentation may provoke autonomic concomitants that can enhance sympathetic activity. Other studies demonstrate activation of parasympathetic activity and other neuromodulatory effects with spinal manipulative treatment.<sup>7-10</sup>

A common feature among spectrum children is self-injurious behaviors. These may appear as head banging, biting themselves and clawing at skin. Whether these behaviors are uncontrolled tics or whether they may be a reaction to not being understood, or not getting something they want, the behaviors provoke pain and anxiety, which can contribute to sleep disturbances. The adjustment may reduce pain and stress, and therefore, allow for a better night's sleep.<sup>11</sup>

When sleep improves for the autistic child after introducing chiropractic adjustments, not only does that child have reduced stress, but so does the caregiver. Improved quality of sleep contributes to better capacity to perform throughout the day. The caregiver, then, has better quality of life and can provide more effectively for the child.

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