

Can Yoga Help Children Diagnosed With ADD/ADHD?

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According to the Center for Disease Control and Prevention, ADHD can be defined as “a neurobehavioral disorder characterized by pervasive inattention and/or hyperactivity-impulsivity and resulting in significant functional impairment.” The causes of ADD/ADHD are currently unknown. Speaking from her work with Special Needs children, Sonia Sumar, author of *Yoga for the Special Child*[®] describes the behaviors associated with AD/HD, including, “difficulty in following instructions, speaking or acting before one thinks, poor organizational skills, restlessness, impatience, forgetfulness, low self-esteem, and, in the case of children with ADHD, hyperactivity...Children with ADHD find it difficult to slow down, even when they want to; often they are so hurried that they seem clumsy and uncoordinated.”

Darlene D’arezzo, contributing editor and writer for *Yogi Times* magazine works mainly with Special Needs children at her Santa Monica-based Kids' Yoga Circle. In an article entitled “Yoga and AD/HD,” she writes:

“Although there is no simple medical test to diagnose AD/HD and the exact cause of AD/HD remains undetermined, a National Institute of Mental Health study published by the Journal of the American Medical Association found that children with AD/HD have a brain about three to four percent smaller than that of a typically developing child. As expected, affected areas include those that govern sensory processing, motor planning, attention processes and impulsivity (frontal lobes of the cerebrum) and, equilibrium and coordination of movement (cerebellum). It is also thought that the frontal lobes figure in our understanding of our body's orientation in space. It is also, now thought, that the cerebellum is linked to attention as well as sensory input and emotions.”

Fernando Pages Ruiz, contributing editor of *Yoga Journal*, explains some common medical treatments for ADD in “*Focusing on A.D.D.*”:

“Stimulant drug use for hyperactivity dates to 1937, when Charles Bradley, M.D., discovered the therapeutic effects of the amphetamine Benzedrine on behaviorally disturbed children. In 1948, Dexedrine was introduced and shown to be just as effective, without such high dosages. This was followed by Ritalin in 1954...But nowadays, Ritalin has taken a back seat to generic versions of methylphenidate—Ritalin's active ingredient—and ADDerall. A "cocktail" drug of amphetamines, ADDerall offers greater dosage flexibility, works more gradually and on a broad spectrum of symptoms, and eliminates the peaks and valleys of methylphenidate.

“EEG (electroencephalography) represents a computerized training that teaches children how to recognize and control their brain waves. Researchers have observed that those

with ADD have higher rates of theta waves (associated with low stimulation, dreaming, and inattentiveness) and lower rates of beta waves (associated with concentration and attention). A computer game controlled by the production of beta waves teaches children the "feel" of a beta wave state until they can eventually reproduce it at will. EMG (electromyography) works similarly to EEG, except it trains deep muscle relaxation instead of brain waves. When muscles relax to a desired degree, a computer generates a tone. By learning to control this tone, subjects can learn deep relaxation. This treatment is not as popular as EEG, but substantial scientific literature supports its effectiveness. It also represents an important therapy because it works with the most troublesome group of ADD sufferers, hyperactive boys. A study published in *Biofeedback and Self-Regulation* (1984; 9:353–64) found junior high hyperactive boys attained significantly higher reading and language performance after just six 25-minute EMG-assisted relaxation sessions.”

Yogic treatments for AD/HD can be personalized for each child, allowing healing to happen on each subtle level of her being. Ayurveda, the healing tradition of Nepal and India, carries holistic view of healing, saying that it must occur on all levels of existence: physical, mental, emotional, and spiritual.

From an Ayurvedic perspective, AD/HD symptoms can be caused by imbalanced Doshas. Vata dosha represents space and gaseous elements, emptiness, expansiveness, variability, instability, movement, roughness, dryness, and cold. Excess Vata may result in insecurity, anxiety, anxious depression, emptiness, emotional instability, spaciness, poor concentration, mind spinning with thoughts, or difficulty completing tasks. These symptoms can be treated by strategies that warm, lubricate, and calm. (Buhrman 57, 63-64)

Asanas (Yoga poses)

The physical benefits of yoga practice include heightened body awareness and coordination, concentration, balance, sleep, muscle development, emotional balance and brain function. All of these benefit a child’s potential for schoolwork, creative play, performance, self-esteem, and the opportunity to get in touch with her body in a relaxed and non-competitive way.

Darlene D’arezzo comments on some techniques she uses with her Special Needs classes in an article entitled “Yoga and AD/HD”:

“Postures that focus on balance and core stabilization stimulate the cerebellum. Active postures and repeating movements with the body in, to, and out of postures help organize the brain and contribute to nerve growth. The kinesthetic nature of Asanas is wonderful for teaching the brain communication. This is helpful for children with AD/HD, because they are usually right-brain dominant in their information processing and learning styles. Many children with special needs have difficulty relating to others. A group yoga class allows children to interact, communicate, and relate to each other: children get to share, play, and work together. In addition children learn how to listen, follow instructions, manage frustration and anger, and resolve conflict peacefully.

The science of Ayurveda suggests that if a person’s Vata dosha is out of balance, the appropriate action would be to nourish, warm, calm, and lubricate. Asanas and sequences that promote regularity and stability are best. Sarasvati Buhrman, PhD. and Ayurvedic practitioner, teaches that, “Slow, gentle *vinyasa* integrates the activity of the three lower koshas in a way which is particularly beneficial for vata. This is called *triputi*, the union of body, breath, and mind.”

Some other examples of beneficial asanas include: tree pose (and other balancing asanas), cat/cow, downward dog, forward bends, lateral bends, triangle poses, backbends, headstand, and supported shoulderstand. Restorative asanas allow the body to feel the biochemical changes and responses of each pose without effort. Following these with guided relaxation can be extremely helpful.

Relaxation

Yoga nidra (guided relaxation) is the most commonly used form of relaxation with children diagnosed with ADD/ADHD. A definition from “Yoga and the Social Worker — Mantra Meets Mental Health” by Jennifer Sisk, MA, reads, “Literally, “sleep of the yogis,” yoga nidra is a powerful relaxation technique that physically and mentally prepares the practitioner for deeper levels of awareness and consciousness through meditation. Involves guided breathing, relaxation, and visualization.” Sisk also tells us about how Yoga nidra might be used in the future. Karen Soltes, MSW, MA Ed, RYT, director of therapeutic yoga programs at Circle Yoga, a studio in Washington, DC, has an idea about a CD that children and teens can use at home. “I’m hoping they will put on their iPods and use it whenever needed,” she says. “Yoga nidra can help them develop a sense of self-control and is something they can easily learn and do themselves.”

Pranayama (breath exercises)

Not only does pranayama have a positive effect on emotions, it stimulates and strengthens vital areas of the brain and central nervous system. Darlene D’arezzo comments on some techniques she uses with her Special Needs classes in an article entitled “Yoga and AD/HD”:

“Pranayama...is preparation for concentration, meditation. And while classic pranayama exercises are inappropriate for children, teaching little ones to appreciate the breath is the first step in improving wellbeing. Depression, anxiety and distress often accompany AD/HD. Higher order thinking skills, such as analysis and evaluation, conscious thought and reasoning become further impaired when an AD/HDer (or anyone) is distressed. Distress is often reflected in our breath/ing – as we gaze into the looking glass, it appears rapid, short and shallow. Being aware of such and then, consciously breathing deeply helps to alleviate stress as well as worry and frustration. The use of sound, songs, and chants serve to regulate the breath and exercise the many muscles involved in speech and articulation. In addition, breath and sound work can easily be adapted to a child’s needs whether she is feeling anxious, excited, lethargic or fatigued. Speech Pathologist Nicole Archambault, MS, CCC-SLP, CID, has found that her clients who practice soothing breathing techniques “gain a sense of calm and emotional security. Children are better able to cope with emotions that might otherwise impede the ability of their mind to work to its most optimal ability.””

Sonia Sumar uses Nadi Shodhana (alternate nostril breathing) with her ADHD kids to calm them and facilitate communication and better balance between the right and left hemispheres of the brain. Some examples of Pranayama with children include: belly breath, alternate nostril breathing, breathing “through the scary parts” and the idea of bringing attention to the breath. From an Ayurvedic perspective, an example of a warming breath would be *Bhramari*. *Bhramari* combines chest breath, which is heating, with inhalation and exhalation through the nose. This creates happiness in the heart, gives a sense of warmth and security, and calms the mind, dissolving Vata tendencies towards anxiety and depression. (Buhrman 65)

Dhyana (Meditation)

Meditation is widely practiced at all ages to help train the mind, improve memory and focus, and develop sustained concentration. Children respond best to stories and guided visualization exercises that help to block out their busy thoughts. When you combine breathing exercises with meditation techniques, children cultivate self-awareness and self-reflection, leading to self-discipline. Through meditation, children learn tricks to control impulsivity and hyperactivity by themselves. (D'arezzo, 2008)

Ayurvedically speaking, you can focus your meditation practice to address a Vata imbalance using the same principles of nourishing, warming, calming, and stabilizing to quell the busyness of the mind. A visualization of floating on water, for example, might take you away from your worries. Feeling the sun's warmth on your skin could be comforting like a mother's embrace; sinking into the ground like sand would bring a sense of heaviness and grounding.

Diet

Melanie Hartgill, Educational Psychologist and contributing writer for [Business Day](#), writes about diet as one of the most effective treatments for AD/HD, alongside therapy, medication, supplementation, parental understanding, academic accommodations and behavior modification. In her article, "The Options When Dealing with AD/HD," she covers three important steps when making changes to your AD/HD child's diet:

"Firstly, avoid foods that contain artificial ingredients (preservatives, colourants, flavourants and additives) as well as monosodium glutamate (MSG). Secondly, you need to limit the amount of refined food in the diet (particularly white bread, white rice and white sugar) and finally you need to introduce more protein and complex carbohydrates, such as, whole grains, vegetables and brown rice. The Elimination diet, most often recommended for AD/HD children contains the above suggestions as well as recommending the initial removal of fruit and vegetables that are high in salicylates. These include oranges, apples (but not golden delicious), berries, grapes, peaches, plums and raisins, as well as cucumbers, peppers, chillies and zucchini. Once improvement in the child's behaviour has been noticed, these natural salicylates can be reintroduced one at a time over a period of five days to see if your child can tolerate them or not. Intolerance will result in deterioration in behaviour indicating that particular food should be avoided.

"Research has shown that AD/HD children require higher levels of essential fatty acids (Omega 3 and 6) in their diet and this can be found in many supplementations. There are a number of brands on the market aimed specifically at providing AD/HD children with the necessary levels of Omega 3 and 6, such as Eye Q, ADD Vance, Smartfish and Melotone syrup to name but a few. It is equally important, however, to supply AD/HD children with vitamin supplements (such as Optimum Nutrition for Smart Kids) as they often have lower levels of zinc, magnesium, the B vitamins and vitamin C. A deficiency in some of these vitamins and minerals can lead to the body blocking the absorption of essential fatty acids."

Ayurveda believes that the key to good health is proper digestion. "*Aam*," explains Sarasvati Burhnam, "is any symptom or collection of symptoms of toxic digestive disturbances...in this case, the agni (digestive fire) is unable to clearly separate what is good for the body from what

should be excreted, thus leading to the absorption of toxins. This process is believed in Ayurveda to underlie a large number of chronic diseases such as allergies, autoimmune diseases, etc.” It is possible to modify your diet to balance excessive Vata. Ayurvedically significant qualities of food that increase vata are: dry, bitter, and astringent. Foods to avoid include: too many heavy grains (unless prepared with ghee and spices) and beans (except tofu), red meat, caffeine, white sugar, soda pop, eating or drinking a food colder than room temperature, and eating dry foods alone (like trail mix, granola, chips, or dried fruits). Cravings can be a message our bodies instinctually tell us to supplement our diet when we may be lacking vitamins. Your brain thinks of a match for this craving from a previous experience, but these matches can be reprogrammed with a healthy choice. Fruits and juices replace white sugar, including: raspberry, strawberry, peach, fresh-squeezed grapefruit and orange, apricot, pomegranate, tomato, carrot, and veggie juices. Some examples of protein-rich foods that do not kill animals include basmati rice and corn, quinoa, easily digested seeds and nuts, blue-green algae, and almond milk. (Buhrman 70-71)

Lifestyle is also important to look at when healing a child holistically. According to Tara Carey, founder of Flower Yoga:

“There are Four Main Paths to Yoga: A system of Universal and Inclusive Practice:

Jnana Yoga: The pursuit of knowledge through study, inquiry, analysis, experimentation and experience. The child attends some aspect of a directed quest towards learning at home and school.

Bhakti Yoga: The experience of love and devotion through artistic activities; song (chanting), dance, media arts, listening to stories, drama and prayer.

Karma Yoga: The practice of self-less service towards others and the self. This could be doing chores, helping those in need, supporting family members.

Raja Yoga: The practice of cultivating a sturdy body and mind so as to merge one’s awareness with the wonder of life. Children can learn these accessible tools for self motivation and confidence in all life pursuits.”

In order to attain balance in all aspects, it is important to incorporate all teachings of Yoga into your life. Healing requires an active role and self-discipline. Through Yoga, children learn how to listen to their bodies, boosting awareness, confidence, and self-love. Ayurveda teaches that anyone, anywhere, is born with the tools to heal herself from the inside out. Yoga helps us to tap into that inner wisdom.

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