



9 Drug-Free Approaches to Managing ADHD

Meditation and 8 other treatment techniques that may ease ADHD symptoms

By [MEGAN JOHNSON](#)

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Video: ADHD

For decades, Ritalin and similar stimulants have reigned over other treatments for attention deficit hyperactivity disorder, also known as ADHD or ADD. The meds are seemingly tried and true, with numerous studies backing their effectiveness. However, the latest results from the Multimodal Treatment Study of Children with ADHD, the largest investigation of the benefits of medication against behavioral therapy, found that [stimulants' effects wane over time](#). In addition, the study found

that more than 60 percent of the children on stimulants stopped taking the medication within eight years. What's more, the medications used in the study might have stunted participants' growth, researchers concluded.

The vast majority of kids respond positively to one or more of the approved medications for ADHD, according to Mina Dulcan, head of child and adolescent psychiatry at [Children's Memorial Hospital in Chicago](#). (She is a member of an advisory board sponsored by the manufacturer of a nonstimulant used to treat ADHD.) But it's not as simple as finding an ADHD drug that works. Many of these children, she observes, have problems besides ADHD that may also need to be addressed.

Experts have a lengthy list of techniques other than prescription drugs that may help manage ADHD symptoms. Here's a quick look at some of them:

Positive parenting. Authors of a review published last year in *Clinical Pediatrics* wrote that parents of kids with ADHD are often more controlling and disapproving of their children, are more likely to reprimand, and are less supportive than parents of kids without the disorder. Training programs can teach parents how to reward good behavior by, for example, awarding points or privileges to kids for focusing on their homework. Considerable scientific evidence indicates that receiving training in key parenting skills helps parents manage their kids' behavioral problems, although studies showing the long-term benefits of the treatment are lacking. "Absolutely essential to any treatment program for ADD should be positive relationships," both at home and at school, says Edward Hallowell, psychiatrist and author of *Superparenting for ADD*. *U.S. News* contributor Nancy Shute [interviewed him recently](#).

Treatment programs. Along with parent training sessions, summer programs for kids were examined in the MTA study. As behavioral therapeutic interventions, summer programs and parent training initially were found to be less effective than medication in children with ADHD. But these behavioral therapies are recommended by the American Academy of Pediatrics as acceptable treatments for ADHD. Summer treatment programs, pioneered by William Pelham, a research psychologist at the State University of New York–Buffalo, are offered at several university medical centers and aim to teach kids social skills and improve academic performance. Shute [covered such programs in detail](#), as well as those that deal with parent retraining, earlier this year.

Neuro feedback. Also called EEG biofeedback, this treatment tries to train patients to control brain waves typically associated with focus and attention. Unlike medication, which must be taken for years, neurofeedback is said to work permanently after the training sessions are completed. It seems to be safe. Numerous studies of the technique "all have some flaws, but it looks like a promising treatment," says Eugene Arnold, professor emeritus of psychiatry at Ohio State University and lead researcher of a current federally funded clinical trial of neurofeedback on a group of children with ADHD. He notes, however, that



this approach is difficult, labor intensive, and expensive—as much as \$5,000, a cost that health insurance is unlikely to cover until there is clear evidence that neurofeedback works. Such evidence, Arnold says, is accumulating.

Interactive Metronome training. Many kids with ADHD can't form and execute a plan one step at a time, as other kids do. Interactive metronome training, which employs a computerized tool, was developed to help kids with ADHD improve their motor skills and ability to plan. Users tap their hands or feet in time to a beat they hear through headphones, and the technology records their accuracy. In a study that included 56 boys with ADHD, the training seemed to focus attention and improve motor control, reading, and other skills in the patients, compared with those who either got no treatment or played video games.

In general, rhythmic activities can improve attention in certain children, according to Stanley Greenspan, clinical professor of psychiatry and pediatrics at George Washington University Medical School and coauthor of *Overcoming ADHD: Helping Your Child Become Calm, Engaged, and Focused—Without a Pill*, a book coming out next month. But such activities are only one part of a comprehensive program described in the book, Greenspan says, which aims to help all areas of development that influence attention. Here's a tip from the book: Try playing "Simon says," getting your child to mimic your gradually more elaborate two- and three-step actions.

Meditation. A pilot study that appeared in a 2008 issue of *Current Issues in Education* suggests that transcendental meditation may help improve attention and behavior in kids with ADHD. The results can't be generalized to all forms of meditation since each technique works differently, says Sarina Grosswald, a medical education consultant and lead author of the study. TM affects the brain by reducing stress and anxiety, which allows the prefrontal cortex—the part responsible for attention and focus—to function more efficiently, Grosswald says. Research at the University of California–Los Angeles supporting mindfulness meditation appeared last year in the *Journal of Attention Disorders*. Neither meditation study compared the results with a group not practicing meditation.

A natural environment. In a 2004 study in the *American Journal of Public Health*, researchers found that kids with ADHD showed improved symptoms after playing outside in a natural environment. A similar 2008 study out of the University of Illinois showed that attention improved in kids who took a 20-minute stroll in the park more than in kids who walked outside in a downtown or residential area without much greenery. These studies suggest that [children with ADHD get some benefit from being in nature](#).

Better sleep. A study that appeared in March in the journal *Sleep* concluded that kids with ADHD slept for less time on average than their healthy counterparts, suggesting that sleep problems may be associated with ADHD. "Up to 25 percent of children who have been diagnosed with ADHD may not have ADHD, [but rather] they may have sleep-disordered breathing," says Julie Wei, associate professor of otolaryngology at the University of Kansas School of Medicine.

A few years ago, Wei and a team of researchers assessed the behavior of 71 patients (the majority of whom did not have ADHD) after their tonsils and adenoids (lymph tissue behind the nose) were removed. Six months after surgery, the group showed significant improvement in four measures of behavior: inattention, hyperactivity, oppositional behavior, and a measure called the ADHD index. While the ADHD index eventually returned to presurgery levels, hyperactivity, inattention, and oppositional behavior stayed down for at least 2½ years, Wei's team found. Wei tells parents to pay attention to their kids' sleep, especially if a child snores habitually, which may be a sign of sleep-disordered breathing.

Diet. The Feingold diet, in which patients abstain from food additives and naturally occurring salicylates, has been hyped since the '70s, even though subsequent research hasn't been very successful at replicating initial findings that the diet eased ADHD symptoms. And sugar has caught blame for causing hyperactivity. "The scientific literature is confusing," says Greenspan. The problem is that all children are different, and the research has not created subgroups that would tell us which children are sensitive to dyes or additives in food, according to Greenspan. For that reason, parents have to be very good detectives, he says. If you're concerned that sugary juices, for example, are worsening problems, try removing them from your kid's diet for two weeks and watch the effect, Greenspan recommends. Some



experts also advise children to take omega-3 supplements if they're not getting adequate amounts in their diet. [Omega-3s, found in fatty fish and other foods](#), may improve brain function and focus.

Exercise. There's increasing evidence that physical activity is good for the brain as well as the heart, Arnold says. *U.S. News* has reported on research that [linked aerobic exercise to kids' achievement in math and reading](#). Arnold's team is working on a pilot study to find out whether exercises that train the cerebellum, such as running in place or navigating around cones, are more beneficial for children with reading problems and ADHD than an exercise program that involves aerobics. Hallowell puts exercise No. 2 on his list of so-called alternative treatments for ADHD, behind creating a positive, loving environment at home and above getting enough sleep.

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