

Music: Sound Medicine for ADHD

Parents, take note: music therapy builds better focus, self-control, and social skills in kids with attention deficit.

by [Anni Layne Rodgers](#)



ADHD children can use music to train their brains for stronger focus and self-control in the classroom and at home.



Our American Idol

James Durbin does not have ADHD. But growing up with both Asperger's and Tourette syndromes, he suffered involuntary facial tics and debilitating social skills that made him a punching bag for [bullies](#).

"I was teased, bullied, and picked on for being different," says Durbin, 22, the third runner-up on the 2011 season of *American Idol*. "Music was my shell. Inside, I could create a world as happy or as sad as I wanted, and no one could tell me differently."

Though he loved and mastered music from a young age, Durbin didn't learn to perform with others until he joined Kids on Broadway, a community theater group in his hometown of Santa Cruz, California. When he landed the lead in a 2006 production of *Grease*, Durbin spent rehearsals avoiding eye contact and [holding back rages](#). Five years later, he was performing solos and group numbers for nearly 20 million *American Idol* viewers every week.

"I learned a lot about myself, and it made me stronger," says Durbin of his teen years in community theater and music education. "For me, the answer was music. But I say search yourself, search the world, and find what you love -- that is what will ease the pain."

"Nothing activates the brain so extensively as music," says Oliver Sacks, M.D., professor of neurology at Columbia University and author of [Musicophilia](#). He should know. Sacks has documented the power of music to arouse movement in paralyzed Parkinson's patients, to calm the tics of Tourette syndrome, and to vault the neural breaches of autism. His belief that music can heal the brain is gaining favor, thanks, in part, to Gabrielle Giffords.

In January 2011, the Arizona congresswoman survived a gunshot wound to her left temple. Because language is controlled by the brain's left hemisphere, Giffords was unable to speak. As part of her arduous recovery, she worked with a music therapist, who trained her to engage the right side of her brain -- pairing words with melody and rhythm -- to bring back speech.

"She was able to sing a word before she could speak a word, and the damaged areas of her brain were circumvented through music," says Concetta Tomaino, executive director of the Institute for Music and Neurologic Function. "Now the neuroscience community is saying, 'Yes, the brain changes' and 'Yes, [auditory stimulation](#) can help those changes happen.'"

Therapy That Plays Well

Music therapy is used to help victims of severe brain trauma, children on the autism spectrum, and seniors suffering from Alzheimer's disease. For children with ADHD, music therapy bolsters attention and focus, reduces hyperactivity, and [strengthens social skills](#).

How does it work?

MUSIC PROVIDES STRUCTURE. Music is rhythm, rhythm is structure, and structure is soothing to an ADHD brain struggling to regulate itself to stay on a linear path. "Music exists in time, with a clear beginning, middle, and end," says Kirsten Hutchison, a music therapist at Music Works Northwest, a nonprofit community music school near Seattle. "That structure helps an ADHD child [plan, anticipate, and react](#)".

MUSIC FIRES UP SYNAPSES. Research shows that pleasurable music increases dopamine levels in the brain. This neurotransmitter -- responsible for regulating attention, working memory, and motivation - is [in low supply in ADHD brains](#). "Music shares neural networks with other cognitive processes," says Patti Catalano, a neurologic music therapist at Music Works Northwest. "Through brain imaging, we can see how music lights up the left and right lobes. The goal of music therapy is to build up those activated brain muscles over time to help overall function."

Just as Giffords used music to retrain her right brain to help her to talk, ADHD children can use music to train their brains for stronger focus and self-control in the classroom and at home.

MUSIC IS SOCIAL. "Think of an orchestra," says Tomaino, a 30-year veteran in music therapy. "If one instrument is missing, you can't play the piece. [All 'voices' are necessary](#)." This is what Hutchison teaches in "Social Skills Through Music," an eight-week course for children ages seven to 10. Students participate in ensemble playing, write collaborative songs, and practice for an end-of-session performance.

"Students learn to listen, take turns, anticipate changes, and pick up on cues in ways they might not do outside of a music-therapy session," says Hutchison.