

# White Noise and ADD/ADHD

Wednesday, 14 July 2010

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## Easily Distracted? Turn up the White Noise

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White noise is any gentle, steady, monotonous, peaceful sound like a fan humming or other background sounds that are calming and not stimulating. What are the benefits of white noise for those with ADD / ADHD? Research in Sweden has found that the presence of white noise appears to help distractible ADHD children concentrate and pay better attention while learning. A control group of children without ADHD performed better in silence without the extra background noise. Research in Sweden has found that the presence of white noise appears to help distractible ADHD children concentrate and pay better attention while learning. A control group of children without ADHD performed better in silence without the extra background noise. The report published in the October 2008 Psychological Review .

These findings are surprising as children with ADHD appear to have greater difficulty in environments that are distracting. The researchers, Goran Soderlund from Stockholm University and Sverker Sikstrom from Lund University, explain that children with ADHD have lower dopamine activity in the brain. The noise serves to stimulate and increase dopamine activity resulting in better concentration.

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Children without ADHD, on the other hand, have higher levels of brain dopamine activity. Extra noise is, therefore, distracting and as a result memory and concentration are disturbed for these children without ADHD.

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What can we do with this information?

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“The conclusions we draw from our model are actually relatively easy to transfer to practical situations. The model helps us understand children with concentration problems and serves as a simple tool to adapt the school environment to children with ADHD.”

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“It provides a scientific basis for treatment of a problem complex linked to concentration difficulties, as in ADHD, and can be a complement to pharmacological treatment,” says Goran Soderlund.

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This study provides us with additional insight in structuring an individual’s environment to optimize school success, as well as work success, and memory.

{mospagebreak title=White Noise Helps with Concentration in ADD/ADHD}

## White Noise Helps with Concentration in ADD/ADHD

By Dr. Kenny Handelman

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As a child psychiatrist, I know that most teens with ADD or ADHD do their best school work while listening to their music.

I often have to convince parents and teachers to allow their ADD/ADHD kids and students the privilege of listening to

music while they work.

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Now, there is a study which has proven that this is the case. Well, it has actually proven that "white noise" in the background can increase the concentration for people with ADD or ADHD.

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{mospagebreak title=White Noise - Behavior modification tool}

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By Isabel Rodrigues

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White Noise is not actually "noise" it is a random signal with a flat power spectral. It is a sound frequency or a signal that one hears as a gentle hiss, similar to the sound of wind rustling through trees, a waterfall, radio static or the ocean surf. It is purely a theoretical construct. To use a simple analogy, the color white contains the whole spectrum of colors of light. Similarly white noise is created by using the entire spectrum of frequencies, the human ear can hear.

White Noise can help a person relax or work as a sleep aid. Life is full of disruptive sounds and noises, such as honking of cars, barking of dogs, noisy neighbors, annoying snoring and screaming sirens. White noise does not add to the clamor of noise instead white noise contains equal frequencies of all sounds. Research has shown that a steady, monotonous stream of the same peaceful sound, such as white noise, can filter and mask distracting noises. This gentle continuous sound promotes a calm mood to help you relax and/or fall asleep.

The benefit of white noise for anyone is that it can help lessen the noisy distractions of one's physical environment. That's why it's used to help people relax, sleep, and concentrate better. Different sights and sounds within their surroundings more easily distract individuals with ADD/ADHD, hyperactivity, impulsiveness and other similar disabilities. By masking or canceling out extraneous sounds, white noise can be a very effective part of an overall program to promote greater focus, concentration, and productivity, as well as improved interpersonal behavior.

White noise is often recommended as a behavior modification tool, to help manage your pets' behavior, especially to relax them. Many dog owners play white noise as an anti-bark control to stop their dogs from incessant barking at loud noises or if they're suffering from separation anxiety or fear. White noise also helps comforts your scared or nervous pet, especially if it's experiencing some form of pet phobia.

And, pets love to fall asleep to white noise, just like humans!

White noise can be obtained in different formats such as ocean waves and the wind. Of course, these are not the real ocean waves and wind but pure white noise in the soothing rhythmic pattern of waves or the dynamic intensity of the wind.

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{mospagebreak title=Teachers Use White Noise to Assist ADHD Students}Â

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By Christine Cadena - October 23, 2009

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Educational Implications

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Children with Attention Deficit Hyperactivity Disorder, ADHD, typically experience complications with focus and attention in the classroom but that lack of focus and attention is often due to impulsivity and not, necessarily, attributed to general

attention deficits. If you are a teacher in grade school or middle school, and you have students that seem distracted and quite impulsive, this may be a sign of ADHD and using white noise in the classroom may provide a benefit.

The sounds of fans in the classroom can provide a relaxing and inviting environment to students, especially those that live with ADHD. By using white noise, you are providing a soothing and consistent sound that is often used in the home and even to help individuals sleep. White noise is the term given to any sound that is soothing, at a low-level, and stimulations relaxation. For students with ADHD, white noise may provide the one additional benefit needed to boost performance in the classroom.

Children with ADD, Attention Deficit Disorder, may be adversely affected by white noise as it may be too calming and make the student feel sleepy while in class. But, if your classroom is not filled with students with ADD, and you seem to notice the more impulsive behavior of ADHD in the classroom, try white noise for a few days and see how your students respond.

On a teacher's salary, finding supplies for the classroom can be challenging but white noise is one of those classroom support projects that can be created rather easily. Using a small oscillating fan, set at low levels, students with ADHD can benefit from white noise without impacting your own personal budget as a teacher. While the school may not support the purchase of the fan for white noise in the classroom, if you find the white noise does not help your student performance, you can always take the fan home for your own personal use.

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#### Educational Implications

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ADHD is a complex childhood disorder that affects millions of students each year. While parents struggle to find balance in the symptoms of ADHD, teachers often struggle equally as hard as they work through the academicÂ success of the student while also trying to manage the ADHD symptoms. If you find that your class has one or two students that may be struggling with ADHD symptoms, try creating an environment where white noise is available and you may find this improves your students' performance.

Â Sources: Educating Special Needs Children, Summer, 2007.