

Quiet Down!

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Dear Sensory Smarts,

My 14-year-old grandson becomes agitated when he is in noisy situations like school assemblies, busy restaurants, and parties. He avoids doing things his friends enjoy such as going to the movies or bowling. He recently injured his ankle and was sent for an MRI. He had a meltdown because the machine was so loud. The ear, nose, and throat (ENT) doctor said he hears just fine. How can we help him?

From, Worried Grandma

Dear Worried Grandma,

It sounds like your grandson *does* hear well...*too* well, in fact. The typical volume threshold for hearing is 0–15 decibels of sound. People with hypersensitive hearing (hyperacusis) can hear at zero or even negative decibels of sound. With so much sound bombarding him, it's no wonder your grandson is having a hard time! While most of us become uncomfortable when sound reaches a certain volume, an oversensitive person will become unhappy at a much quieter volume. And with so much noise entering his auditory system, it can be nearly impossible to filter out irrelevant sounds and attend to only those sounds that are important. It's like trying to hear your friend whisper at a rock concert.

Keep in mind that listening is a complex skill that includes both hearing and processing what is heard. Sound includes intensity (loudness, measured in decibels); frequency/pitch (the number of sound waves per second); duration (how long the sounds last); and directionality (where the sounds are coming from). A person with sensory processing issues may have difficulty putting all of these qualities together. Specific frequencies, such as a high-frequency hair dryer or a low-frequency air conditioner, may be upsetting. The crack of the bowling pins may be jarring each and every time your grandson hears it. In noisy situations, his auditory system may become flooded and overwhelmed by the intensity, frequency, directionality, and duration.

Auditory sensory issues are common for people on the autism spectrum. A survey by the Geneva Centre for Autism in Toronto (Walker & Whelan 1994) found that over eight in ten people on the spectrum were hypersensitive to sound. Another study, conducted by the late Dr. Stanley Greenspan and Serena Wieder (1997), found that 100 percent of people on the spectrum had auditory dysfunction. The problem can be with volume or frequency. Like your grandson, Temple Grandin passed a regular hearing test but asserts that certain sounds make her feel like there is a “dentist drill going down my ear.”

Some Practical Strategies

You'll want to take a multipronged approach to helping your grandson: assisting him in handling his discomfort while building his underlying auditory tolerance. Here are some strategies that may help.

At School

Empower your grandson to self-advocate at school. For example, he should be entitled to say, “The sound hurts my ears. I need a break” or “I need my earplugs.” Classroom accommodations may include the following:

- Preferential seating near the teacher.
- Use of a personal FM (frequency modulation) Unit, a device that allows the teacher to speak into a transmitter while the student listens through a receiver. This brings the teacher's voice to the

foreground so the student won't miss what is said.

- Providing written instructions, assignments, and class notes.
- Right to wear noise protection (e.g., earplugs, headphones, earmuffs) during school assemblies, on the playground, in gym class, and in other specific environments in which he is likely to experience discomfort.
- If fire drills cause severe distress not prevented by earplugs, he should be warned in advance of fire drills and allowed to leave the building a few minutes before the scheduled drill.

At Home and in the Community

Teach others that if your grandson says his ears hurt, they should believe him. It's invalidating and infuriating to be told a sound is not loud when it is, in fact, painful.

Protect sensitive ears by using earplugs, noise-cancelling headphones, or sound-reducing earmuffs. You'll find these at your local drugstore, music supplier, or hardware store, respectively. You can also find many choices on the Sensory Smarts website at www.sensorysmarts.com/toys_and_equipment.html. An excellent online resource is www.earplugstore.com, which, in addition to a wide variety of earplugs, offers high quality sound-protecting earmuffs for babies, children, and adults. Keep in mind that earplugs, headphones, and earmuffs are not to be worn all day long because the brain and auditory system will get used to the dampened sound. Save them for specific situations that are especially challenging such as going to bowling alleys, parades, and other large group gatherings. Remember that your grandson will still be able to hear you when his ears are protected.

Get an auditory processing evaluation from an audiologist familiar with sensory issues. In addition to assessing skills, such as auditory foreground/background discrimination, ask for auditory threshold testing that starts at *negative* 15 decibels of sound. Learning more about auditory strengths and challenges enables everyone to understand his behavioral reactions in certain situations and will help develop a plan to help him, possibly including accommodations on his individualized education plan (IEP) at school.

Speak with an occupational therapist, speech language pathologist, or audiologist about whether a therapeutic listening program would be helpful. Just as you would engage in an exercise program that includes both strengthening and stretching activities to increase physical fitness, therapeutic listening programs can strengthen auditory skills and stretch the person's ability to tolerate a variety of sounds. Some of the most widely used programs are Therapeutic Listening: www.vitalinks.net, The Listening Program: www.thelisteningprogram.com, Integrated Listening Systems: www.integratedlistening.com, and Solisten, the portable application of the Tomatis Method: www.solistentraining.com.

Efficacy studies have been conducted on many of these listening programs yet they remain somewhat controversial. Many families, therapists, and teachers report excellent results from these programs, so they are worth investigating.

Finally, your grandson may really appreciate the Sensory Friendly Films program from Autism Society and AMC Theatres. To provide a more comfortable experience, the theater turns down the volume, turns up the house lights, and allows people to bring their own snacks. To find a participating theater near you, go to www.autism-society.org/get-involved/events/sensory-friendly-films or simply Google “Sensory Friendly Films.” ■

References

Greenspan, S. and S. Wieder. “Developmental Patterns and Outcomes in Infants and Children with Disorders in Relating and Communicating: A Chart Review of 200 Cases of Children with Autism Spectrum Diagnoses.” *The Journal of Developmental and Learning Disorders* 1 (1997): 87-142.

Walker, N. and M. Whelan. Geneva Symposium on Autism, October 27, 1994, Toronto.

For more on auditory hypersensitivity and other sensory issues, please see *Raising a Sensory Smart Child* and visit www.sensorysmarts.com.