

Pediatric Hearing Health – English Script

Our ears are an essential part of our body, and without them, there's so much we wouldn't be able to experience. Therefore, it's so important to take care of your child's ears to help prevent damage. The ear is made up of the outer, middle, and inner ear, and every part works in harmony so we can hear the world around us. Working together, the outer ear captures sounds and channels them into the middle ear. Sound is transmitted to tiny bones in the middle ear which, in turn, transmit the sound to the inner ear. The inner ear has the specialized nerve cells that transfer the sound to the brain, which is how we hear and eventually interpret sound. Protecting each part of the ear is important for preserving your child's hearing.

To protect the outer ear, routinely utilizing good hygiene practices are highly recommended. But what is good ear hygiene? You might think about using cotton swabs to keep the outer ear clean and free of earwax. This is a common misconception that most parents have and is actually dangerous for your child. Truth is that your ear self-cleans, and you don't need to clean out any of the earwax that is inside your ear. Earwax is important in trapping particles of dust, dirt, or any other foreign object that may enter into your ear, so you don't want to remove one of your body's natural lines of defense.

So what are good ear hygiene practices exactly? Cleaning your child's ears is a simple task. The most important thing to remember is that you should never use cotton swabs inside their ears. This can push earwax down, packing it in, and preventing sound from reaching the eardrum and even damage the eardrum, if the cotton swab is pushed in too far. The safest and most efficient way to clean your child's ears is by using a washcloth or cotton swab on the outside of the ear. Only use soap and warm water on the outside of the ear.

The main issue for children's ears is ear infections. The middle ear is an opportune place for more significant damage due to repeated ear infections, so it is important to take care of. Ear infections can cause a buildup of fluid or pus, making it difficult for the eardrum and tiny bones in the middle ear to move sound to the auditory nerve in the inner ear. Repeated ear infections can cause damage to the structures in the middle ear that can result in permanent hearing loss. You can help prevent these by avoiding secondhand smoke exposure, providing proper hand and mouth hygiene, keeping up-to-date with scheduled vaccines and the annual flu vaccine. However, you should see a doctor immediately if you think something is wrong because untreated ear infections can lead to hearing loss.

The inner ear can be a source of hearing loss as well. There are fine, tiny hairs in the inner ear that send sound signals to the brain via the auditory nerve. If they are damaged, they can produce permanent hearing loss. Exposure to loud noise is one way in which damage can be caused upon the hairs of the inner ear that send signals to the brain. Your child's inner ears may be damaged if he or she is around extremely loud noises, or around loud noises for long periods of time. To protect your child's inner ear, try to keep your child away from loud noises. When

your child is going to be around loud noises such as at concerts or around heavy machinery, have them use earplugs or muffs.

To conserve your child's inner ear, monitor the noise levels present in the environments that the child is in such as at the playground or at school. You can also actively protect your child's inner ear health by installing a noise barrier between the source and the recipient, planning and designing outdoor and indoor "soundscapes" that strategically using the space and location, building sound insulation using sound-absorbent materials such as curtains or rubber stoppers on chairs, reducing internal noise such as fans and ventilators, and participating in public and professional education to recognize noise pollution and reduction.

Participating in good outer and middle ear hygiene and reducing exposure to loud noises will help preserve your child's hearing. Children's ears, just like the rest of their body, are still growing and developing. By looking after their ears when your child is young, you can ensure that they remain in excellent health even when they are fully grown.