

Cotton Swabs Send Dozens of Kids to the ER Every Day

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STORY AT-A-GLANCE

- › Nearly three dozen children are treated in an emergency room every day for an injury related to a foreign object in their ear, most frequently a cotton swab
- › I don't recommend using anything smaller than your elbow in your ear as it can stay clean naturally; this includes irrigation and ear candling
- › While your ear drum will naturally heal, damage allows bacteria and water to enter the middle ear and may lead to hearing loss and other damage

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If you are using a cotton swab to clean out your ears, you're certainly not alone. But, contrary to popular belief, cleaning your ears is not only unnecessary, it is potentially damaging to your ear canal. It can be particularly dangerous for children. Inside your ears are tiny little hairs that help keep your ear canal clean of debris and wax. In fact, when left alone, wax in your ear will naturally migrate out where it can easily be wiped away.

However, sticking a foreign object in your ear, like a cotton swab, poses a potential risk to your hearing. You could potentially damage the thin skin in the canal and/or the tiny bones in your middle ear (ossicles) that transmit sound. Research has discovered that nearly three dozen children are seen every day in emergency rooms (ER) across the U.S. after damaging their ear canals or ear drum with a foreign object, most frequently a cotton swab.

What's Behind the Drum?

In this short video you'll see the outer ear structures, essential for the initial stage of hearing and the area where cotton swabs cause the most harm. Your ear is a complex structure designed to gather sound waves and funnel them through a delicate bony structure, sending signals to your brain that are interpreted as sound and language. Each part of your ear has a specific function that enables hearing.

The outer ear is shaped to help funnel sound waves from the environment through a small canal to the tympanic membrane. Along the walls of the ear canal are tiny hairs called cilia that help transport wax and debris out of the canal and into the outer structure.

The tympanic membrane is also called the ear drum. When sound hits this membrane, it begins to vibrate, transmitting sound waves into the middle ear.¹ These waves cause three small bones in the middle ear to vibrate, transmitting the sound to a fluid-filled cochlea.

Tiny hairs in the cochlea pick up the sound waves and transmit this information to your auditory nerve, which communicates the data to your brain. At the end of this process your brain interprets the information – all of which happens in milliseconds.

Three Dozen Children a Day Visit the ER After Ear Injuries Related to Cotton Swabs

Damage to this delicate system may happen easily with a simple cotton swab. In one study, researchers found nearly three dozen children are seen every day by emergency room physicians after damaging their ear canals by inserting a foreign object,² and many times the object is a cotton swab.

In the majority of the cases, children were using cotton swabs themselves to clean their ear canals.³ The remainder of the injuries happened when children were playing with the cotton swabs or fell with a swab in their ear. The researchers concluded:⁴

“Despite warnings against the use of CTAs [cotton-tipped applicators] in the ear canal and use of CTAs by children, these injuries continued to occur. Additional injury prevention strategies through further parent/caregiver and child education are warranted.”

The highest rate of injuries is to children up to age 3,⁵ who likely are imitating what they see their parents doing. The injuries the researchers uncovered ranged from minor to severe, but nearly all children were discharged home from the ER without requiring hospitalization.

The number of visits for this injury has changed over the past 20 years. There were nearly 10,000 ER visits in 1990. This number rose to over 17,000 in 2001, but dropped to just over 12,000 in 2010.⁶ Approximately 40% of the time children presented complaining they felt like something was stuck in their ear.

If It's Smaller Than Your Elbow, Don't Use It

When a foreign object is inserted into the ear canal, it can damage the cilia in the canal, making it more difficult for wax and debris to be removed naturally. Any foreign object that enters the ear canal will also push wax further back toward the ear drum, where it muffles sound and creates hearing problems.

Removing wax that gets packed near the tympanic membrane must be done in your doctor's office. This is a difficult and sometimes painful procedure. The situation also makes diagnosing an ear infection difficult or impossible unless the wax is removed.⁷

When wax is pushed far enough into the ear canal it can come to rest against the tympanic membrane, triggering discomfort or pain that is similar to an ear infection, as well as reducing your hearing.

There are several other methods of ear cleaning you may have heard about that are equally inadvisable, such as **ear candling**, which involves lightly inserting a lit ear candle (a hollow linen or cotton tube soaked in paraffin or wax) into your ear canal. Some believe this may draw out wax and impurities from your ear.

However, experts typically warn against this procedure and I wholeheartedly agree. Risks include eardrum perforations, burns, plugging your ear with wax and injury to your ear canal from dripping wax.⁸ Delay in seeking medical care using these treatments may increase the risk for long-term damage.

Irrigation with a syringe may be safe, but there is a risk of developing a painful episode of swimmer's ear, an infection of the outer ear canal, if the canal is not properly and thoroughly dried. Generally, there is no need to rinse your ears. My advice is, if it's smaller than your elbow, it's best to keep it out of your ear.

Damage May Lead to Hearing Loss

Another potential danger from using cotton swabs or other mechanical devices to remove wax from your ear is if you puncture your ear drum. This membrane exists to protect the three tiny bones in the middle ear from bacteria and debris. While the membrane will heal naturally after being punctured, the damage done during the incident, and damage to the small bones from debris entering the middle ear after the incident, can lead to significant hearing loss.

While the study indicated most children were discharged home as the injury didn't require hospitalization, follow-up hearing testing was not part of the study protocols. According to the researchers, nearly all patients were treated and released, but this did not imply some of the injuries were not serious.⁹

Potential risks from delayed treatment of a severe injury include perforation of the ear drum, **hearing loss**, dislocation of the small bones in the middle ear and fascial nerve paralysis. If a retained foreign body is removed in a timely fashion, there typically are not complications.

However, if they are not removed, this type of injury has been linked to intracranial complications, including brain abscess and fatal meningitis. The ear is a sensitive area, and the risk of damage is high. It's time to dispel the myth that cleaning your ears at home is necessary.¹⁰

Using Cotton Swabs Outside the Ear

If you aren't using [cotton swabs](#) to clean your ears, what can you use them for? Women can clean up makeup mistakes, such as mascara, eye shadow and cover-up, or for repairing nail polish mistakes. Cotton swabs also help you apply blemish cream more accurately, avoiding excess dryness and flakiness.

Cotton swabs can also be used to clean things around the house. For example, they are handy to clean your computer keyboard, get dust and grime out of the small areas of your car's interior or the inside of your hair dryer.¹¹

If you have a zipper that's stuck, put a little lip balm on the tip of a swab and rub it over the teeth of the zipper to get it unstuck easier. There is no need to pull out a paint brush to touch up a small area on your wall – a cotton swab does the trick, and it can just be thrown away when you're done.

The same is true for arts and crafts work. A cotton swab may accurately place fabric glue, paint polka dots or be used as a paint brush for your youngest child. The cotton swab can become a part of the artwork too. Check out Pinterest for some really creative ways to use swabs that are easy on your ears.¹²

If you enjoy aromatherapy, you can make your own therapy-on-the-go by saturating a swab with essential oil and carrying it in a zipper-type plastic bag.¹³ Lavender may help you relax before flying or peppermint may help put a little zip in your step during an afternoon at work.

Safe Ways to Clean and Dry Your Ears

As you consider the options you have at home to keep your ears clean and dry, remember to refrain from putting anything into your ear canal as it can cause significant damage and increase your risk for hearing loss. If you have a buildup of wax near the eardrum you may experience pain or a feeling of fullness.

Some fluids may help to soften the wax so it may naturally migrate out of the canal. These liquids include saline solution, [coconut oil](#), [hydrogen peroxide](#) or olive oil. Do not use solutions or irrigate your ear if you have a tube in the ear drum, have diabetes or have a weakened immune system.

Under these circumstances, it is best to see an ear, nose and throat doctor. Use a moist cotton ball to wipe out your outer ear as wax migrates out of the canal.

When getting out of the shower, you may be tempted to dry your canal out with a cotton swab, but there is better way to accomplish this without risk of damage. Use a hair dryer set on warm and low for a minute or two aimed at your ear canal. This may also help reduce your risk of developing swimmer's ear.

Sources and References

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- ¹¹ [One Good Thing, February 5, 2024](#)
- ¹² [Pinterest](#)
- ¹³ [Reader's Digest, "22 Brilliant Uses for Q-Tips That'll Come in Handy"](#)