

Don't use cotton-tipped swabs to clean inside your ears, experts urge



Many eardrum perforations, in both children and adults, caused by sticking instruments in ears

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Many patients don't realize that by trying to clean their ears with cotton-tipped swabs or other objects, they can push earwax in further, injure the ear canal or even burst their eardrum, says a study of emergency department records in the U.S. (Bangkokker/Shutterstock)

👉 Sampling of U.S. emergency department records confirms that sticking anything smaller than your elbow in your ear is a good way to puncture an eardrum.

About 66 per cent of patients treated for traumatic tympanic membrane perforations had hurt themselves by sticking instruments in their ears, and nearly half of these cases involved cotton-tipped swabs.

"In our experience, cotton-tip applicators [Q-Tips and similar products] are frequently the instrument that patients will use to clean their ears," lead author Dr. Eric Carniol, an otolaryngologist at the University of Toronto, told Reuters Health by email.

"Our conjecture is that the majority of these injuries were caused by patients trying to get their own ear wax out," he said.

- [Why you shouldn't treat earwax without seeing a doctor](#)

The tympanic membrane, or eardrum, is a structure that transmits sounds from the outer ear to the bones inside the ear, and perforating the membrane can lead to hearing loss, [Carniol and his colleagues wrote](#) in a recent issue of JAMA Otolaryngology Head & Neck Surgery.

Otolaryngologists (ear, nose and throat specialists) see many patients in the office with tympanic membrane perforations that are most often caused by ear infections or trauma, Carniol noted. The current study focused on the traumatic causes of eardrum perforations.

Many patients do not realize they can often injure the ear canal, push earwax further in (impaction) or even burst their eardrum, he said.

The researchers looked at five years of records from 100 nationally representative emergency departments in the U.S. and found more than 900 visits for ear-related injuries. These represent almost 5,000 emergency department visits for tympanic membrane perforations nationally during the same period, the researchers wrote.

Just use a washcloth

About 60 per cent of patients were male, and most were 18 years old or younger. "Ear canal instrumentation" was the cause of injury in 61 per cent of cases, and 45 per cent of these specifically involved cotton-tipped applicators, the study found.

For children from infants to five years old, foreign instruments were the cause of 86 per cent of injuries; for those six to 12-years old, it was 66 per cent.

Among adults 37 to 54 years old, sticking foreign objects in the ears caused 53 per cent of perforations and among those 55 or older, it was 67 per cent. Besides cotton swabs, other objects included hairpins, toys, combs, pencils, straws, toothpicks and lollipop sticks.

“After a shower, most people can get away with just using a washcloth to wipe the wax away from the ear.

- Eric Carniol, University of Toronto

Water activity, such as water skiing and diving, was also an important cause of injuries particularly among teenagers and 19- to 36-year-olds, Carniol said.

Carniol hopes the most important finding people will learn from the study is, "please do not use Q-Tips to clean your ears."

Carniol said many patients come into his office asking how they should clean the wax from their ears.

"Earwax is made in the outer 1/3 of the ear canal, and it is water-soluble.

Therefore, after a shower, most people can get away with just using a washcloth to wipe the wax away from the ear," he said.

Self-cleaning mechanism

The article is "a nice study of emergency room visits for traumatic ear perforation," said Dr. Hamid Djalilian, a professor of clinical otolaryngology at the University of California, Irvine, who wasn't involved in the research.

But the study "doesn't capture all the patients who had this problem in the U.S. because it doesn't include patients who sought care in an outpatient setting such as an urgent care, primary care physician, or ear nose and throat specialist," he told Reuters Health by email.

The ears have a self-cleaning mechanism, said Djalilian.

"This means that the dead skin of the ear canal along with the earwax gradually move outward and come out of the ear on their own."

Therefore, using a cotton-tipped swab is almost never necessary and nearly always will just push in the wax deeper into the canal rather than remove wax, he said.

"A little bit of wax will stick to the Q-Tip and make the user feel great about themselves that they accomplish something, but chances are approximately five to 10 times more wax was pushed in," Djalilian said.

Using Q-Tips (or other things) in the ear canal is also the leading cause of ear canal infections as it scratches the ear canal skin and allows bacteria to enter the skin causing an ear canal infection (otitis externa), Djalilian noted.

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