

PRACTICAL TIPS IN OTOTOLOGY

Wax

Background

The commonly taught philosophy that, if there is wax obstructing the external auditory meatus, the ear must be normal behind it is false. Examination of the ear is inadequate unless the eardrum has been seen. The presence of even a little wax in the ears tends to distract one's eye and make it difficult to focus on the tympanic membrane.

Methods of removing wax

Headlamp and Jobson-Horne or wax hook:

Allows quick and easy removal of superficial wax. Be careful not to hurt the patient or go too deep (damage the ear). This is mostly only possible in adults and older children that cooperate. Start by pulling the ear posterior-superiorly (to straighten the external ear canal). Under direct vision gently pass the hook past the wax (usually superior to it) and rake the wax outwards by applying gentle downward pressure. **MAKE SURE NOT TO INJURE THE EXTERNAL EAR CANAL!** The skin is tightly adherent to the underlying periosteum leading to severe pain when touched and is easily lacerated with subsequent bleeding. We would strongly suggest that you buy yourself any decent outdoor camp headlight. At the end there are also examples of Jobson-Hornes and various wax hooks. You can also use a hair pin or paper clip as a hook.

Syringing:

You would need a headlamp, bowl to collect water, and a gentle stream of body temperature water (big syringe and a blunt/soft nozzle e.g. sheath removed from a drip needle). The idea is to try and aim for a gap in the wax if possible and get the returning stream of water to push the wax out. Otherwise, one should aim at the posterior-superior quadrant and let the stream come back at you from antero-inferiorly. **REMEMBER**, if you use water that is either cooler or warmer than body temperature, you will induce a caloric reflex. This will cause nystagmus and frequently violent nausea and vomiting.

(Caloric reflexes are frequently used to assess if a patient is "brain dead". In that setting, you will on purpose use water that is either below or above body temperature. Classical teaching stipulates 7°C above or below, but a mini-caloric test involves rinsing the ear with tap water for 10 seconds in the summer and 5 seconds in the winter. Furthermore, caloric testing is one of the few vestibular tests that stimulates only one vestibulum at a given time.)

Dissolving / softening wax:

By far the best wax solvent is simple water with or without Savlon®. It works very quickly and by syringing the ear at +/-15-minute intervals or giving your patient a dropper to pump into his ear each few minutes. You will be able to clear the ear of wax within 30 minutes by syringing it after the water has softened it.

Cotton wool ear buds:

Generally, it causes the wax to impact more by pushing it deeper in with its blunt end. It may be useful on occasion for wax lying on the external auditory meatus wall, if one can pass the "bud" beyond it and then rake it out. **REMEMBER**, don't confuse this with ear mopping in the case of a discharging ear.

Foreign bodies

Background

Usually occur in little children who are generally uncooperative in the removal of the FB. Try not to rush in on the FB, first establish a "bond" with the child. This is especially important if previous attempts have failed (or impossible). If cooperation is obtained from the child, the first attempt at removal affords the best (often the only) opportunity. Get help in securing the child's arms and head by usually wrapping the child in a blanket. In general, try to do this with the child on the caretaker's lap.

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Techniques

Most FB can be removed with a small crocodile or Tilley's forceps. Most casualties will have these instruments and if in private practice you will find joy in investing in these instruments and helping many patients.

If the foreign body is hard or sharp, it may cause damage if pushed into the ear. Rather refer to your local ENT specialist.

If the object is round and has no means of getting purchase, the use of a crocodile or other forceps will only push it deeper. If the child cooperates and lies still, and there is a gap through which a Jobson-Horne or right-angled wax hook may be passed, the FB may be raked out. Preferably rake out down and forwards: the antero-inferior external auditory meatus is less sensitive to pressure and touch.

If there is a little gap and one can selectively syringe water through this with a 20-cc syringe with a "plastic" cannula on its end (see wax technique), this may force the FB out.

There have been reports of the successful use of cyanoacrylate glue ("superglue") applied to a probe and touched to the FB and then allowed to set (quickly, as it does). Make sure the child can't move!

Suction tips applied on a FB can also successfully suck out a FB.

Often one is confronted with an insect in the ear. These patients experience huge discomfort as the insects' usually ends up close to the tympanic membrane. The reason being that the natural instinct is to try and get rid of the insect by turning the ear downwards. In reality, the insects crawl upwards and therefore deeper into the ear canal. In the acute situation one only needs to kill the insect by putting IV lignocaine or an oily solution into the ear.

REMEMBER, the only true emergency in the ear canal is a battery! These should be referred immediately if you can't remove it. In general, if the situation looks difficult, rather refer to your local ENT specialist.

Ear mopping and installing drops or boric powder

Technique of dry mopping

Ear mopping, also known as ear toilet, refers to the process of manually clearing the discharge from the external ear canal before applying topical agents. This is usually done in the acute process with acute post-grommet otorrhoea or in chronic suppurative otitis media. By using the back end of a Jobson-Horne current (or a blunt ended orange wooden stick), cotton buds, or simply rolling cotton wool around any applicator the ear is cleaned. This step should be repeated until the ear is dry. It is also imperative to dry mop the ear before installing any drops or powders into it. The video link demonstrates how to dry mop the ear:

<https://youtube.com/shorts/SNXWikNz0jE>

Technique

Topical agents include antibiotic drops, acetic acid, and / or boric powder. Historically gentamycin-based drops were used but has now been replaced by ciprofloxacin-based drops which is not ototoxic. Frequently the ciprofloxacin drops are combined with a topical steroid, and combination products are available. Before installing drops, shake the bottle well and warm it to body temperature (otherwise you will elicit a caloric response). The easiest is to carry it against your own body for a couple of minutes before installing it into the ear. With the affected ear facing up, install the number of drops prescribe and lightly apply a pumping action on the tragus (see video). Sometime patients report "tasting" the drops which is due to some reaching the pharynx via the Eustachian tube.

The Division of Otorhinolaryngology prefers the application of boric powder in cases with chronic discharge. Please click in the link to see the video on installing boric powder in the ear:

<https://youtube.com/shorts/fGeZzGU8oQA>



Instruments frequently used: A Tilley forceps on the left, Jobson-Horne in the middle, and a crocodile forceps on the right.