

MINOR PROCEDURES

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Today's Agenda

- Foreign Body Removal
 - Ear
 - Nose
 - Eye
 - Ring Removal
 - Soft tissue
- Hemorrhoids
- Animal Bites
- Tetanus and Rabies Immunization

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Foreign Body Removal

Ears

- Cerumen Impaction
- Insects
- Other foreign bodies



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Techniques

- Manual removal
- Irrigation
- Suction
- Adhesives
- Magnets?



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Cerumen Impaction

- Causes
 - Anatomic deformities
 - Increased number of hairs in the external auditory canal
 - Physical barriers to natural wax extrusion (e.g., cotton swabs, hearing aids, earplug-type hearing protectors)
- Diagnosis by history & visualization
- Ensure no recent history of trauma !
- Treatment
 - Irrigation of the external auditory canal, with or without the use of ceruminolytics
 - Jet irrigation, syringes, elephant ear, etc.
 - Cerumenolytics alone
 - Manual removal using a curette, forceps, suction or glue

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Cerumen Impaction

- Wax occludes canal
 - Diminishes hearing
 - May cause pain
- Removal
 - Ceruminolytics
 - Visual removal cerumen loop
 - Suction
 - Visual removal with alligator forceps
 - Irrigation

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Cerumenolytics

- Several drops to canal
- Allow to sit for 20-30 minutes
- Manually remove, suction, and/or irrigate with warm water
- Ensure TM is intact
- Consider antibiotic otic drops if skin traumatized
- Home self-care
 - Several drops cerumenolytic to ear
 - Allow to soften 30 minutes
 - Allow water to run into ear in shower
 - Gently massage over tragus
 - Clean gently with towel
 - No Q-tips

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Cerumen-Softening Agents

Agent	Use	Dosing	Comment
Water-based			
10% Triethanolamine polypeptide oleate condensate	Soften cerumen before irrigation	Fill affected ear canal 15 to 30 minutes before irrigation	Can be irritating to the ear canal and should not be used for a prolonged period
Docusate sodium	Soften cerumen before irrigation	Fill affected ear canal with 1 cc 15 to 30 minutes before irrigation	In one study, one fifth of tympanic membranes were visualized without irrigation
3% Hydrogen peroxide	Soften cerumen before irrigation	Fill affected ear canal 15 to 30 minutes before irrigation	If not completely removed, bubbling may interfere with ability to visualize tympanic membrane
2.5% Acetic acid	Home treatment of impacted cerumen	Fill affected ear with 2 to 3 cc twice daily for up to 14 days	More effective in children than in adults
10% Sodium bicarbonate	Soften cerumen before irrigation or as an alternative to irrigation	Fill affected ear with 2 to 3 cc 15 to 30 minutes before irrigation, or alternatively for three to 14 days at home with or without irrigation ¹	More effective in children than in adults
Water or saline	Soften cerumen before irrigation	If irrigation is attempted without softening and is ineffective with the first irrigation attempt, instill water and wait 15 minutes before repeating irrigation	

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Contraindications

- Irrigation
 - Hx TM perforation
 - Previous pain with irrigation
 - Previous middle ear surgery
 - Relative contraindications
 - Lack of visualization
- Suction
 - Severe tinnitus with previous suction
 - Excessively hard cerumen
 - Uncooperative patient

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Potential Complications

- TM perforation
- Canal laceration/abrasion
- 2° infection
- Hearing loss
- Pain
- Dizziness
- Syncope

Suction may create a cooling effect and elicit a caloric response from the inner ear causing nystagmus and vertigo


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OOPs

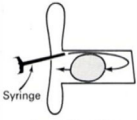


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Foreign Bodies



Syringing



The adult meatus is about 1" long



Foreign Bodies – eraser heads, beads, cotton tips, bugs, etc...

Bugs - drown insects with mineral oil or lidocaine before attempting removal.

Removal – requires direct visualization prior to removal either via warm irrigation with syringe, or instruments like an alligator forceps.

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Manual Removal

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Suction - Irrigation -




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Adhesive



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Ear Candling

- Originates from traditional Chinese, Egyptian, or North American medicine??
- Hollow candle made from a fabric tube soaked in beeswax
- No evidence based proof of efficacy
- Concerns for safety



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And not to forget
Visualization
is imperative!



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Take Home Points

- Remember, insects are friable – they come apart, separate
- If alive, drown with mineral oil, viscous lidocaine or other liquid
- Optimally, remove FB by irrigation
- If manual removal, irrigate to clear
- Always visualize ear canal and TM
- Consider otic antibiotics if trauma to canal
- Be ready for complications

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