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- Call 800-753-2160 (M-F, 8 AM-8 PM ET)
- Email customerservice@AudiologyOnline.com

continued[®]

Managing the “Earie” Canal

Cerumen Removal Part 1

Rita R. Chaiken, AuD

continued[®]

Learning Outcomes

After this course, participants will be able to:

- Describe pertinent features of outer ear anatomy and physiology.
- Describe characteristics of cerumen.
- Name at least three contraindications to performing certain cerumen management methods.

continued[®]

continued

Yikes!



continued

This training is usually didactic and
experiential

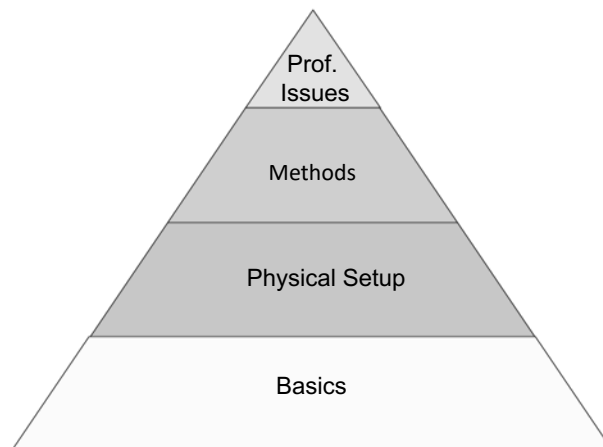


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The goal is for you routinely remove cerumen

- Perform basic cerumen management techniques
- Improve and expand current services

How we will reach our goal



continued

Why Should Must Audiologists Perform Cerumen Management?

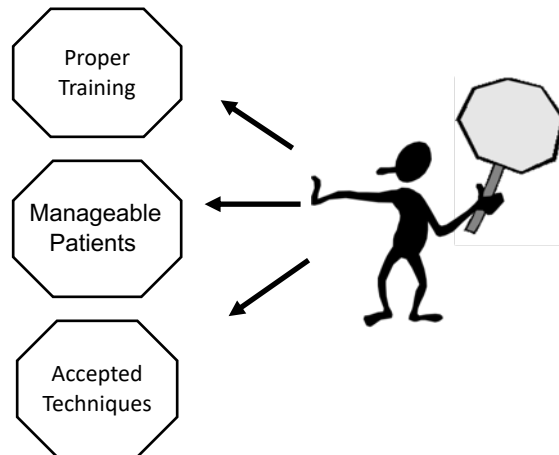
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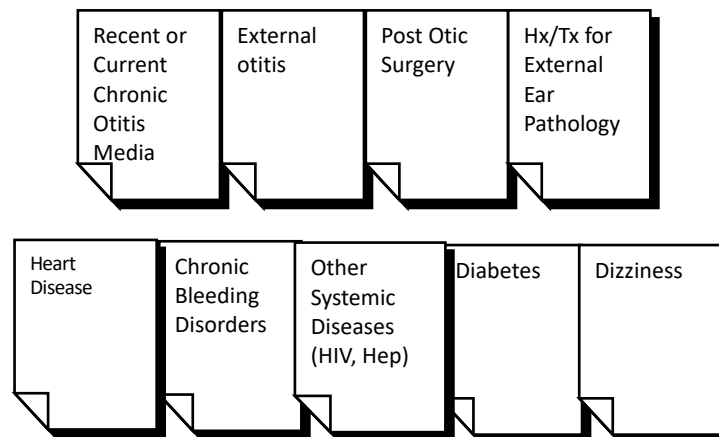
- The Primary Danger of a Foreign Object in the Ear
Lies in its Careless Removal!!

continued

How can you minimize your liability?



The case history may reveal concerns for performing cerumen management



continued

A patient's medications can lead you to their health conditions

- Anticoagulants/Antiplatelets
- Thrombolytic meds.
- Prescription ear drops, creams etc.
- Steroids, chemotherapy meds.
- Herbal *supplements/vitamins*

Audiology Today, vol 20, No 5, September –October 2008 pg 60

<https://www.audiology.org/sites/default/files/audiologytoday/2008ATSeptOct.pdf>

Adverse drug reactions go to CNS Side Effects section: <http://www.rxlist.com/>


For drug-drug interactions go to: http://www.drugs.com/drug_interactions.php


continued

Herbs With Blood Thinning Properties

Garlic

*Ginkgo
Biloba*

Onion 

Licorice
Root 

Ginseng

Turmeric

Ginger

Parsley

SWEET
CLOVER

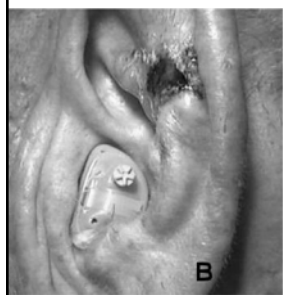
Glucosamine

Vitamin E

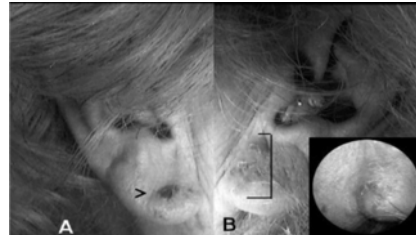
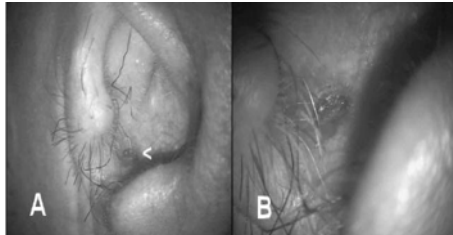
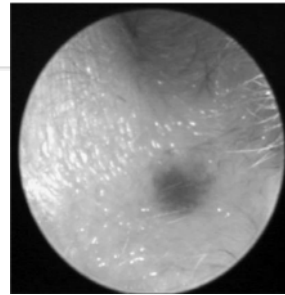
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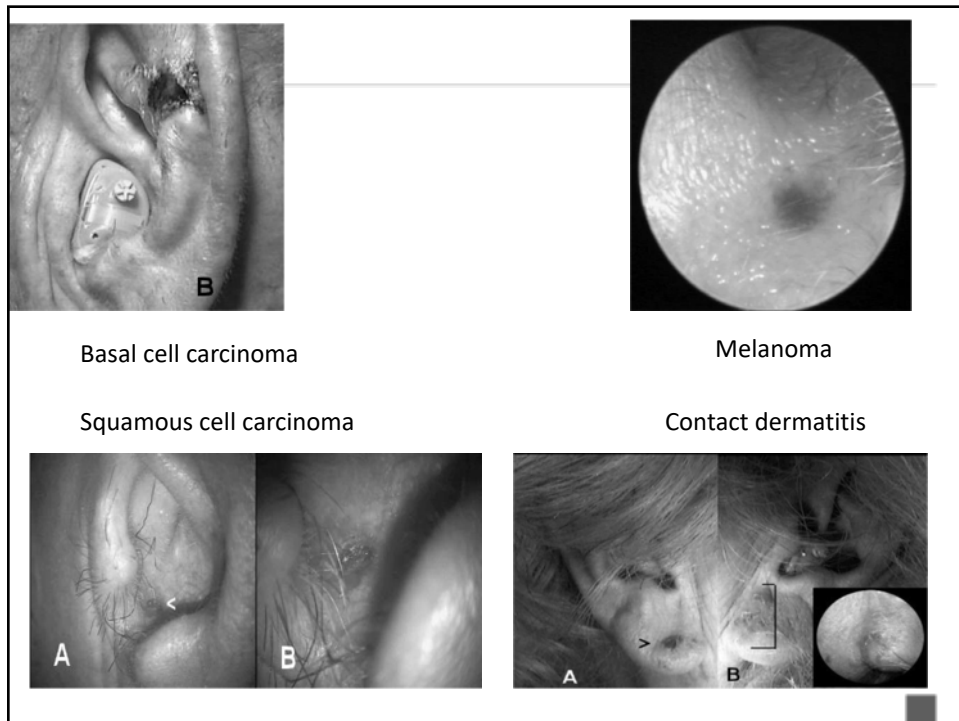
Thorough otoscopy must precede cerumen management



1. Squamous cell carcinoma
2. Contact dermatitis
3. Basal cell carcinoma
4. Melanoma



continued



continued

Otoscopy 1



continued

continued

Otoscopy 1



continued

Otoscopy 2



continued

continued



continued

External Ear Canal

- 25 mm long/9mm high
7 mm wide
- Osseous- 2mm thick
- Cartilaginous- .5-1mm thick
- Isthmus
- Fissures of Santorini – Parotid gland
- Antero-inferior wall approximately
6mm longer
- Superior & anterior walls less sensitive
- Inferior & posterior walls more
discomfort



Fig. 2
1. Helix
2. Opening of the ear canal
3. Auricle
4. Radix helix
5. Cavum conchae
6. Antitragus
7. Lobule
8. Cartilaginous ear canal
9. Bony ear canal
10. Ear drum
11. Hammer
12. Anvil
13. Stirrup
14. Nucleus
15. Cochlea
16. Balance nerve
17. Acoustic nerve
18. Eustachian tube

continued

continued

The external ear is vulnerable to abrasions and sensitive to touch

Cranial Nerves V, VII, IX, X

Arnold's (Vagus) Reflex (VII, IX, X)

Inferior and posterior walls

Auricular branch of the vagus nerve

continued

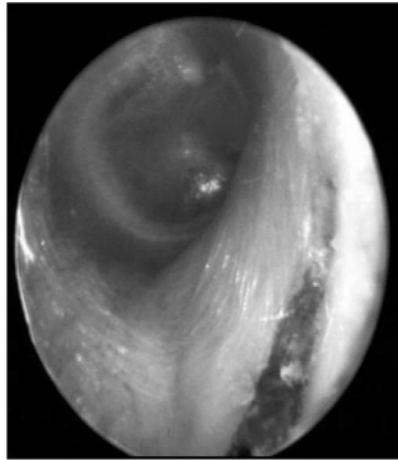
The external ear is susceptible to bleeding

- External carotid artery
- Superficial temporal & posterior auricular veins which connect to the jugular vein

continued

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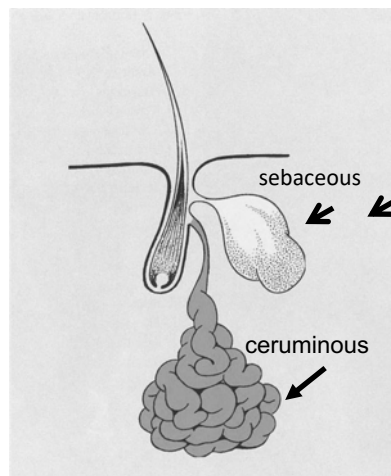
The external canal is a dark, moist environment



- 1000-2000 glands
- Prone to infection
- Covered by epithelium

continued

What are Ceruminous Glands?

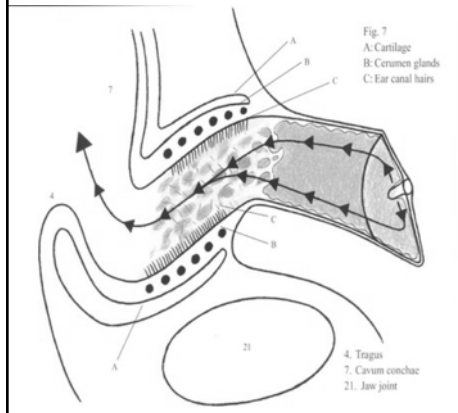


Hologrine glands

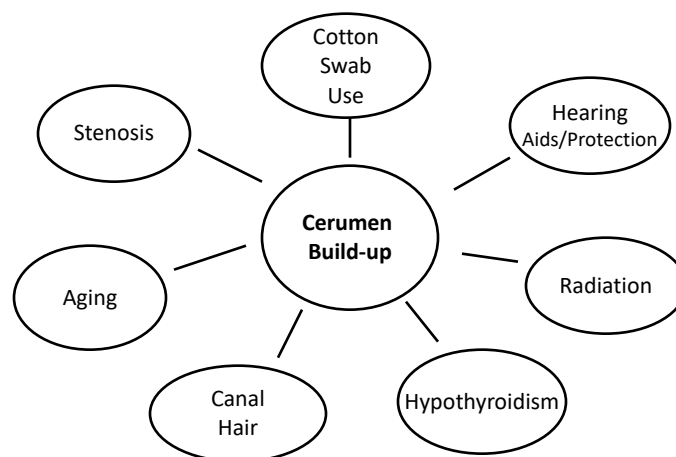
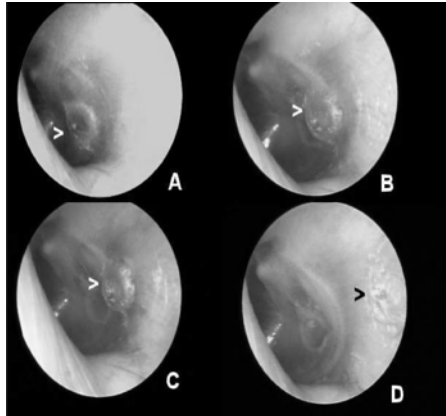
Modified apocrine glands

continued

How does cerumen migrate?

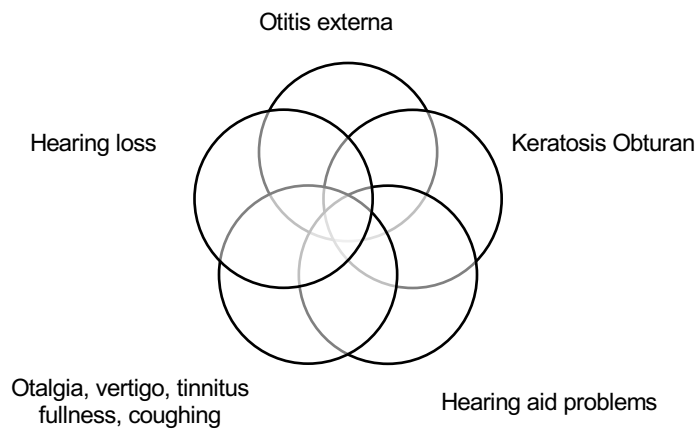


Keratin layer of tm
6-12 weeks
Centrifugal motion



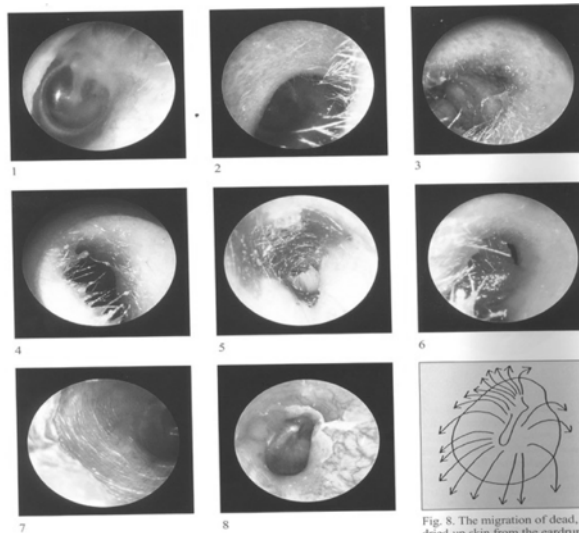
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Cerumen impaction causes other problems



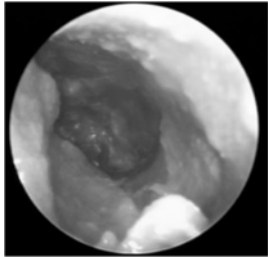
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Cerumen is usually wider at the inferior canal wall

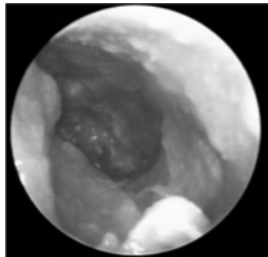
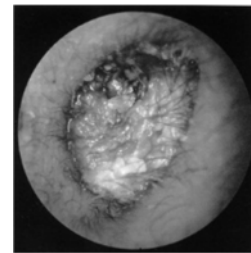
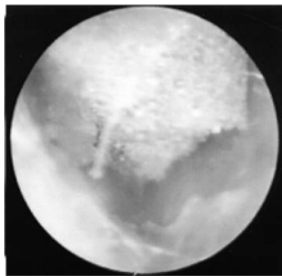
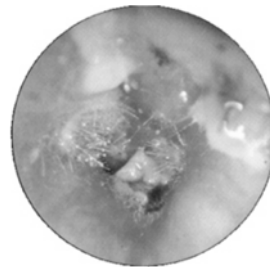


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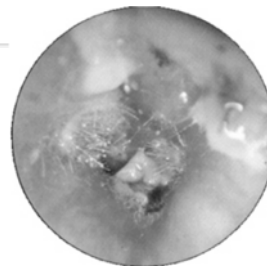
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1. Keratosis Obturan
2. Acute Otitis Externa
3. Foreign Object
4. Otomycosis

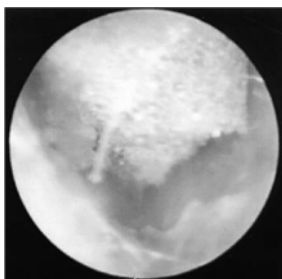


Acute Otitis Externa

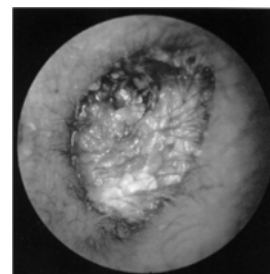


Otomycosis

Foreign Object



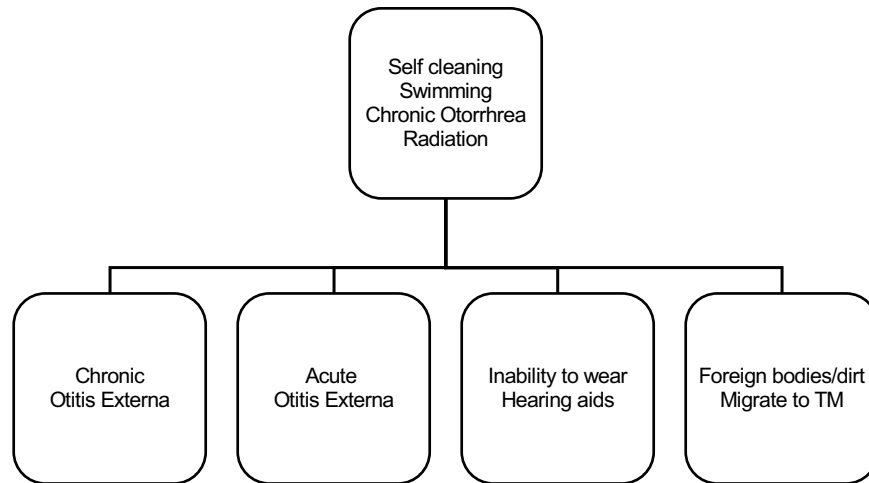
Keratosis Obturan



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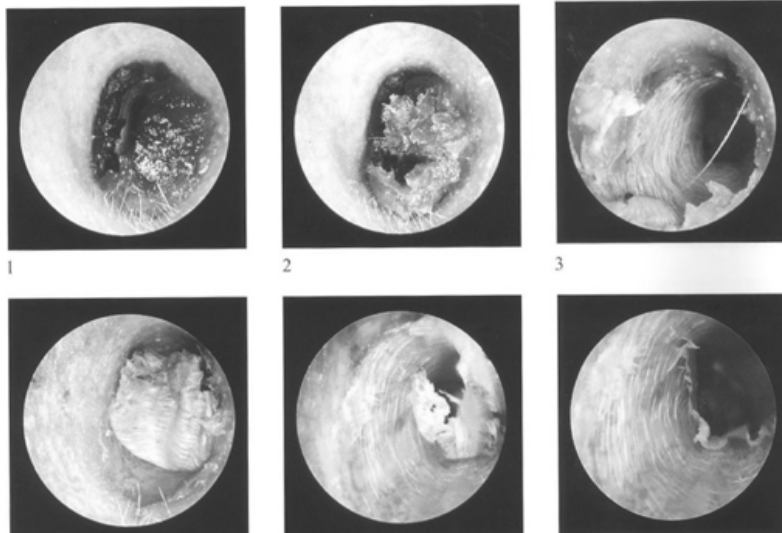
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Cerumen insufficiency also causes
certain conditions



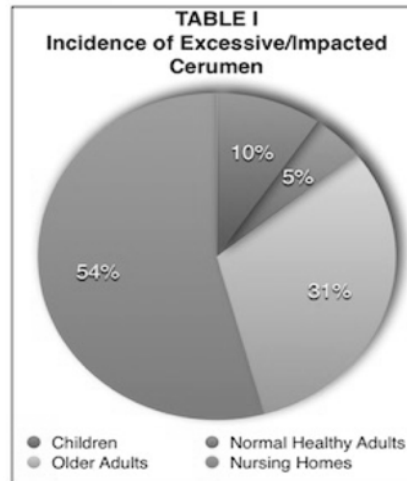
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An Earwax Plug



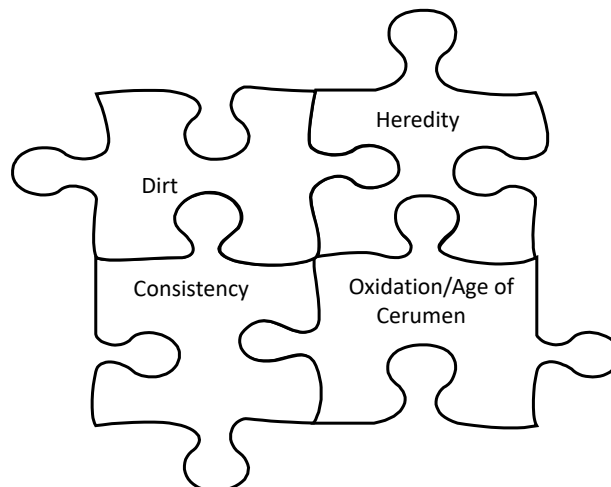
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Incidence of cerumen impaction



Staab, HHTM, May, 2016

Why Does Cerumen Vary in Color?



continued



continued

Questions?

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