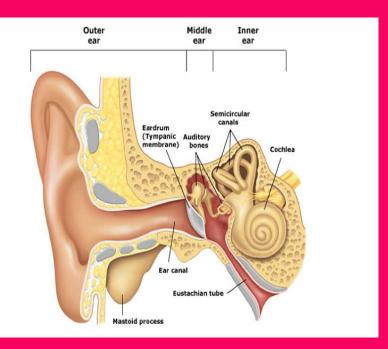


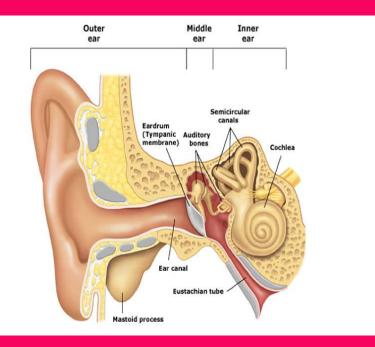
The Ear

- Ears are the organs that allow us to experience sound. They also play an important role in balance.
- Ears are complex and divided into three different sections: the outer ear, the middle ear and the inner ear.
- All three are involved in hearing but only the inner ear is responsible for balance.
- The outer ear consists of the visible part of the ear as well as the ear canal and directs sound waves into the ear and towards the eardrum.



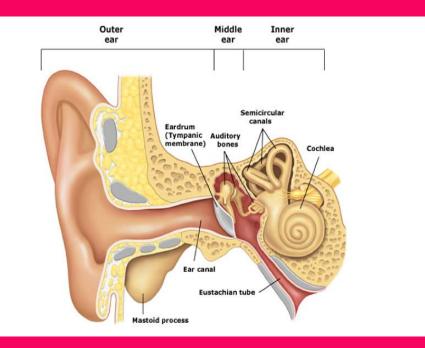
The Ear

- The middle ear contains the eardrum and several tiny auditory bones that are connected to the inner ear.
- Sound waves cause the ear drum to vibrate and these vibrations are sent via the auditory bones to the inner ear.
- The middle ear also equalises air pressure via the Eustachian tube which runs from the middle of the ear to the back of throat.
- In the inner ear, the cochlea detects the vibrations and converts them to electrical signals, sending them up the auditory pathway to the brain
- Hearing declines with age



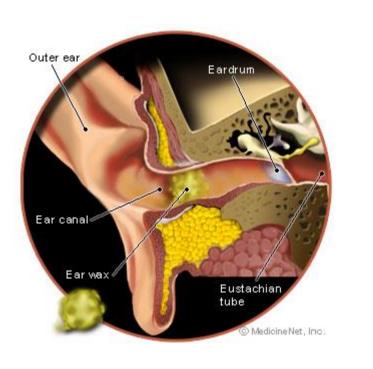
The most common ear problems

- As ears are open to the external environment and connected to the throat, occasionally conditions develop which cause pain, discomfort and affect hearing.
- The most common ear problems are:
- ear wax build-up
- <u>outer ear infection</u> (swimmer's ear)
- <u>middle ear infection</u> (otitis media)



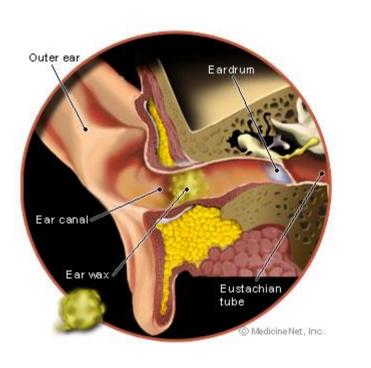
Promoting good ear health

- Once hearing is gone, it is impossible to repair it naturally.
- Most patients with hearing loss need surgery or hearing aids.
- Careful cleaning is another way to prevent hearing loss and damage.
- The American Academy of Otolaryngology suggests cleaning the external ear with a cloth.
- Then, put a few drops of mineral oil, baby oil, glycerin, or commercial drops in the ear to soften the wax and help it drain out of the ear.



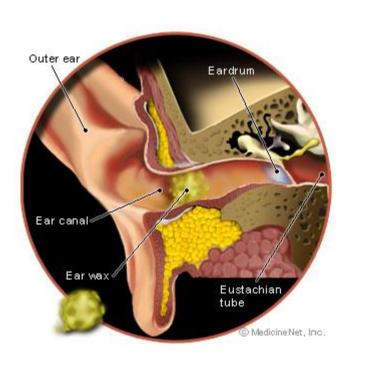
Ear wax our friend

- The skin lining the ear canal contains glands that produce cerumen.
- Cerumen, also known as ear wax, protects the inner ear by repelling water and preventing infection by trapping microorganisms, dirt and other irritants.
- Without ear wax our ears would become dry, waterlogged and infected.
- Sometimes ear wax builds up and becomes compacted. This is known as ear wax impaction.



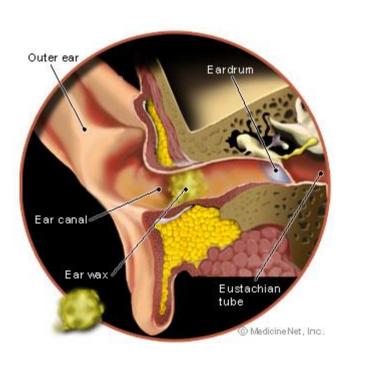
Why does ear wax smell?

- Genetically, people of East Asian and Native American decent have a grey and dry-type of ear wax.
- This compares differently from those of African and European ancestry whose ear wax is more honey-coloured and wet-type
- wet-type ear wax has more compounds related to body odour than the dry-type ear wax.
- Therefore, wet ear wax tends to be smellier.
- One reason why ear wax may smell is genetics.



Ear Wax Composition

- Ear wax is a waxy substance known as 'cerumen' that occurs naturally in the ear.
- Cerumen is a cocktail of skin cells, secretions from the ceruminous glands and a waxy substance known as sebum.
- Wet cerumen contains about 50% fat and about 20% protein, while dry ear wax has a composition of 18% fat and 43% protein



How does ear wax remove itself from the ear

- Ear wax naturally works its way out of the body via normal facial and jaw movements.
- Cerumen can occasionally build up in the ear causing a blockage.
- When this happens, you may need assistance to remove the ear wax buildup.

Causes of ear wax build up

Overproduction of ear wax	Cotton tips	Physiology		
Ears can simply produce more wax than is possible to move naturally out of the ear.	The use of cotton tips to clean the ear may push wax deeper into the ear, making it more difficult to remove.	A narrow ear canal can hinder the natural removal process and ear wax can accumulate.		
Hair	Environment	Frequent hearing aid and earphone use		
A large amount of hair in the ear canal can obstruct ear wax from moving naturally out of the ear.	Working in dusty or dirty environments, particularly outdoors, can lead to dirt or debris building up and trapping wax in the ear.	These can prevent the wax from moving naturally out of the opening of the ear.		



What are the symptoms of ear wax impaction?

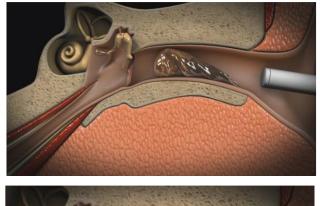
- A sensation of fullness in the ear
- hearing loss
- p pain
- itching
- tinnitus
- vertigo
- painful inflammation of the ear
- chronic cough.

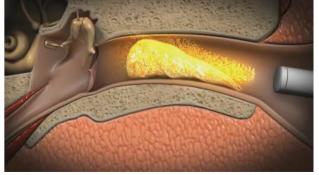


How can CleanEars help?

- CleanEars is an easy-to-use, <u>dual action</u> ear wax removal spray which both liquefies ear wax and irrigates the ear canal.
- It is clinically proven to relieve symptoms of cerumen build up and blockage*.
- Its spray administration is so simple it takes seconds and there is no need to lie down or tilt your head.
- No Preservatives
- 1-2 sprays in each ear, 3 times per day until the wax dissolves

*Ref: Oron, Y et al; Cerumen Removal: Comparison of cerumenolytic agents and effect on cognition among the elderly. Archives of Gerontology & Geriatrics (2010).





How does CleanEars work?

CleanEars is an ear wax removal spray containing squalene, mineral oil and spearmint oil. The 3 main ingredients work in the following manner:

- Squalene: a similar composition to ear wax but in liquid form. It's role is to liquefy the ear wax
- Mineral oil: irrigates the ear and removes the dissolved ear wax.
- Spearmint oil: warms the ear canal and provides a pleasant odour.



cleanears

BioRevive

Clean Ears vs. other ear wax products									
	CleanEars Spray	Waxsol Ear Drops	EarClear Ear Drops	EarClear Cleansing Spray	Cerumol Ear Drops	AudiClean Ear Drops	AudiClean Cleansing Spray		
Easy-to-use spray mechanism	✓	×	×	✓	×	×	X Need to put device together		
Natural ingredients	\checkmark	×	×	×	\checkmark	\checkmark	✓		
Softens ear wax	✓	\checkmark	\checkmark	×	✓	✓	×		
Irrigates ear canal (no syringing required)	✓	×	×	✓	×	×	~		
Clinically Proven	✓	\checkmark	×	×	*Olive oil is scientifically proven to disperse ear wax	\checkmark	×		
No need to tilt the head	✓	×	×	×	×	×	×		
Suitable for ALL ages (from birth)	✓	×	×	×	×	×	×		
Fast application time (< 1 min.)	✓	× 2 full nights	X Several minutes	\checkmark	× 10-30 min.	× 25 min.	🗶 10 min.		
Preservative Free	\checkmark	×	×	×	\checkmark	✓	✓		

