



TYMPAHEALTH™

# Glossary and Abbreviations

# Glossary of terms

## A

- **Acute Otitis Media (AOM)**

The presence of inflammation in the middle ear, associated with an effusion, and accompanied by the rapid onset of symptoms and signs of an ear infection. *(Figure 1)*

- **Annulus**

A thickened ring of collagen at the periphery of the pars tensa. It does not surround the pars flaccida. It sits in a bony groove in the tympanic bone. A cross section of the pars tensa finds the annulus to be a thickening of the middle fibrous layer of the tympanic membrane.

## B

- **Barotrauma**

Physical tissue damage caused by a pressure difference between an unvented space inside the body and surrounding gas or fluid. The damage is due to shear or overstretching of tissues. As a gas-filled space expands or contracts, it can cause damage to the local tissue. *(Figure 2)*

- **Bullous Myringitis**

Ear infection that causes painful blisters on your eardrum. It may happen if you have a cold or a middle ear infection. Unlike middle ear infections, bullous myringitis doesn't make your eardrum bulge or swell or your ears ache. Instead, bullous myringitis causes sudden severe ear pain. *(Figure 3)*

## C

- **Catarrh**

Very common but very difficult to describe. It means different things to different people. Some people use the term to describe a feeling of mucus (snot) at the back of their nose. Others use it to describe a build-up of mucus in their throat. For some, it simply means feeling that they keep needing to clear their throat.

- **Cholesteatoma**

A collection of keratinized squamous epithelium trapped within the middle ear space that can erode and destroy vital locoregional structures within the temporal bone. *(Figure 4)*

- **Cochlea**

A hollow tube in the inner ear of higher vertebrates that is usually coiled like a snail shell and contains the sensory organ of hearing. *(Figure 26)*

- **Concha**

A depression on the outer surface of the pinna (auricle), which leads to the external auditory meatus of the outer ear. *(Figure 26)*

- **Chronic Suppurative Otitis Media (CSOM)**

Chronic inflammation of the middle ear and mastoid cavity, which presents with recurrent ear discharges (otorrhoea) through a tympanic perforation for at least 2 weeks. *(Figure 5)*

# E

- **Erythema**  
Abnormal redness of the skin or mucous membranes due to capillary congestion (as in inflammation) *(Figure 6)*
- **Eustachian Tube**  
Narrow tube that connects the middle ear to the back of the nose. Normally, the Eustachian tube opens with every swallow or yawn to act as a pressure-equalizing valve for the middle ear. It also serves to drain the mucus produced by the lining of the middle ear. *(Figure 26)*
- **Eustachian Tube Dysfunction (ETD)**  
If the Eustachian tube is blocked or does not open properly this is called Eustachian tube dysfunction. The term 'dysfunction' simply means that the tube is not working correctly. In cases of Eustachian tube dysfunction, air cannot enter the middle ear. Therefore, the air pressure on the outer side of the eardrum becomes greater than the air pressure in the middle ear. This pushes the eardrum inwards. The eardrum becomes tense and does not vibrate well when hit by sound waves.
- **External Auditory Canal (EAC)/External Auditory Meatus (EAM)**  
The canal extending from the opening in the external ear to the tympanic membrane. *(Figure 26)*
- **Exostoses**  
appears as a bony growth seen in the inner aspect of the ear canal. Often they are multiple (and bilateral) and seem to result from exposure of the ear canal to cold water such as occurs during years of surfing or swimming. *(Figure 7)*
- **Exudate**  
Fluid that leaks out of blood vessels into nearby tissues. The fluid is made of cells, proteins, and solid materials. Exudate may ooze from cuts or from areas of infection or inflammation. It is also called pus.

# F

- **False Fundus**  
An abnormally thick membrane resembling skin located at the isthmus of the external auditory meatus. *(Figure 8)*
- **Furuncle**  
Another word for a "boil." Boils are bacterial infections of hair follicles that also involve the surrounding tissue. The infected hair follicle can be on any part of your body, not only your scalp. *(Figure 9)*

# G

- **Granulation Tissue**  
Tissue formed in ulcers and in early wound healing and repair, composed largely of newly growing capillaries and so called from its irregular surface in open wounds; proud flesh. *(Figure 10)*
- **Grommet**  
Tiny ventilation tubes that are put inside the eardrum to prevent a build-up of fluid. They are needed if someone has a lot of ear infections that have caused 'glue ear'. Grommets usually fall out by themselves after 6 to 12 months. *(Figure 11)*

# H

- **Haematoma**  
Trauma or injury (usually a direct hit) damages your veins or arteries - blood escapes and collects outside the blood vessels (arteries and veins) in a muscle or within soft tissue and can form a localised hard mass under the surface of your skin. *(Figure 12)*

- **Hydrogen Peroxide**

An ingredient in many bleaches, dyes, cleansers, antiseptics, and disinfectants. It has many potential uses, such as for skin care and oral hygiene. However, there are also safety concerns if people use it incorrectly or in higher concentrations.

# I

- **Incus (Anvil)**

One of three very small bones that carry sound from the eardrum to the inner ear.

- **Isthmus**

Narrowest part of the ear canal

# K

- **Keratin**

Protein released by skin cells that form the hair, nails, and protective barrier on the skin.

# M

- **Malleus (Hammer)**

The largest of three small bones in the middle ear. The malleus functions with the other bones to transmit vibrations from the eardrum to the inner ear.

- **Mastoidectomy**

A surgery that removes diseased cells from the air-filled spaces in your mastoid bone. Your mastoid is the part of your skull that sits just behind your ear. Mastoidectomy is often used to treat cholesteatoma, or ear infections that have spread into your skull. It's also used when placing cochlear implants.

- **Myringitis**

An inflammatory condition of the tympanic membrane (TM), involving its lateral surface with or without the involvement of the adjacent bony external auditory canal.

- **Myringosclerosis**

A condition affecting the eardrum, usually after acute inflammation. Trauma or infections in the ear can cause inflammation.

# O

- **Ossicles**

Malleus, incus, and stapes—are three small bones in the middle ear that transmit air vibrations from the outer ear into the inner ear, so they can be processed as sound. (*Figure 26*)

- **Osteoma**

Slow-growing, benign tumours that can develop in the bony external auditory canal. (*Figure 13*)

- **Otalgia**

Ear pain, in or about the external ear and temporal bone may occur from multiple causes, many of which are remote from the ear itself.

- **Otitis Externa (OE)**

An inflammation of the ear canal. The inflammation is usually caused by infection, although it can sometimes be due to allergy or irritation. (*Figure 14*)

### • **Otitis Media (OM)**

Inflammation or infection located in the middle ear. Otitis media can occur as a result of a cold, sore throat, or respiratory infection. (Figure 15)

### • **Otitis Media with Effusion (OME)**

Also known as 'glue ear', is characterized by a collection of fluid within the middle ear space without signs of acute inflammation. (Figure 16)

### • **Otomycosis**

Fungal infection that affects one, or occasionally both, of the ears. It mostly affects people who live in warm or tropical areas. It also often affects people who swim frequently, live with diabetes, or have other chronic medical and skin conditions. (Figure 17)

### • **Otorrhoea**

Ear drainage. It can happen as a result of trauma or an ear infection, such as otitis media or swimmer's ear. Sometimes, otorrhea indicates a more serious condition, especially if it develops after a head injury.

## P

### • **Papilloma**

A small benign (non-cancerous) growth that begins in squamous cells (thin, flat cells) that are found in the tissue that forms the surface of the skin (epidermis), the passages of the respiratory and digestive tract and in the lining of hollow organs of the body. (Figure 18)

### • **Pars Flaccida**

The superior one fifth of the ear drum. It lies above the anterior and posterior malleolar folds and has no annulus. It is quite thin and floppy and is, therefore, prone to retraction when there is negative middle ear pressure. (Figure 19)

### • **Pars Tensa**

Makes up the majority of the tympanic membrane. It is a firm structure with an annulus. The malleus is attached to it. In general it is strong but that part of it in the posterior superior quadrant is slightly weaker than the rest and retraction can start here. (Figure 20)

### • **Patulous Eustachian Tube**

Disorder of the valve of the Eustachian tube that causes it to remain open. When this valve remains open, sound can travel from the nasal-sinus cavity to the ears, allowing you to hear your own voice or your own breathing too loudly, or even the sound of blood pumping.

### • **Perforation**

A hole or tear that has developed in the eardrum. It can affect hearing. The extent of hearing loss can vary greatly. (Figure 21)

### • **Polyp**

A growth in the outside (external) ear canal or middle ear. It may be attached to the eardrum (tympanic membrane), or it

## R

### • **Retracted Tympanic Membrane**

An air imbalance pulls or sucks in your tympanic membrane (eardrum) toward the middle of your ear. This happens when the air pressure inside of your ear and outside of your ear isn't equal. (Figure 23)

### • **Retraction Pocket**

A localized area of the tympanic membrane invaginated into the tympanic cavity. (Figure 24)

# S

- **Semicircular canals**

Any of three loop-shaped organs in the inner ear that help control balance and stability by sensing rotation and orientation of the head in three-dimensional space. *(Figure 26)*

- **Stapes (Stirrup)**

The stirrup-shaped bone that is the innermost of three small bones in the middle ear of mammals.

- **Stenosis**

Ear canal narrowing and is congenital or, occasionally, acquired.

# T

- **T-tube**

Small, hollow cylinders inserted into your eardrum. They're often used in children or adults who have chronic middle ear infections or infections that have resisted treatment. *(Figure 25)*

- **Tinnitus**

the perception of sound that does not have an external source, so other people cannot hear it. Tinnitus is commonly described as a ringing sound, but some people hear other types of sounds, such as roaring or buzzing.

- **Tragus**

A small cartilaginous flap in front of the external opening of the ear

- **Tympanic Membrane**

Is also called the eardrum. It separates the outer ear from the middle ear. When sound waves reach the tympanic membrane they cause it to vibrate. The vibrations are then transferred to the tiny bones in the middle ear. The middle ear bones then transfer the vibrating signals to the inner ear. *(Figure 26)*

- **Tympanometry**

A test that helps in the evaluation of the proper functioning of the middle ear.

- **Tympanosclerosis**

Calcification of tissue in the eardrum and middle ear, including the tympanic membrane. If extensive, it may affect hearing. *(Figure 25)*

# U

- **Umbo**

The manubrium of the malleus is attached to the medial surface of the tympanic membrane, and it pulls its anterior and inferior portion medially, giving it a conical shape. The central point of maximum depression is called the umbo, and it marks the end of the manubrium.

# V

- **Vertigo**

A sensation of motion or spinning that is often described as dizziness. Vertigo is not the same as being lightheaded. People with vertigo feel as though they are actually spinning or moving, or that the world is spinning around them.

# Common Abbreviations

ABBREVIATION	TERM
AOM	Acute Otitis Media
CSOM	Chronic Suppurative Otitis Media
EAC	External Auditory Canal
EAM	External Auditory Meatus
ET	Eustachian Tube
ETD	Eustachian Tube Dysfunction
ENT	Ear Nose Throat
GP	General Practitioner
Hx	History
OE	Otitis Externa
OM	Otitis Media
OME	Otitis Media with Effusion
Px	Patient
TM	Tympanic Membrane
URTI	Upper Respiratory Tract Infection



# Appendix

Figure 1 – AOM

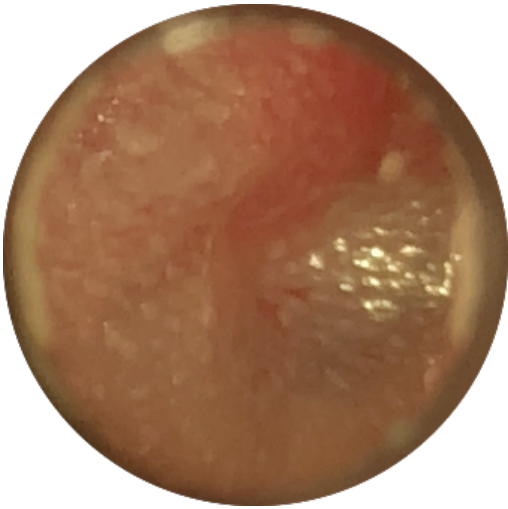


Figure 4 - Cholesteatoma

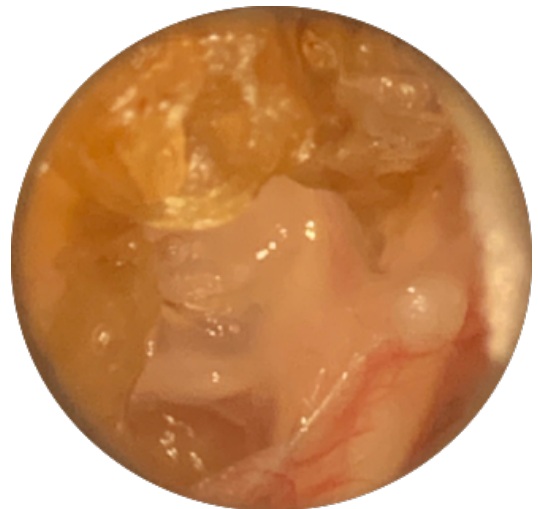


Figure 2 – Barotrauma

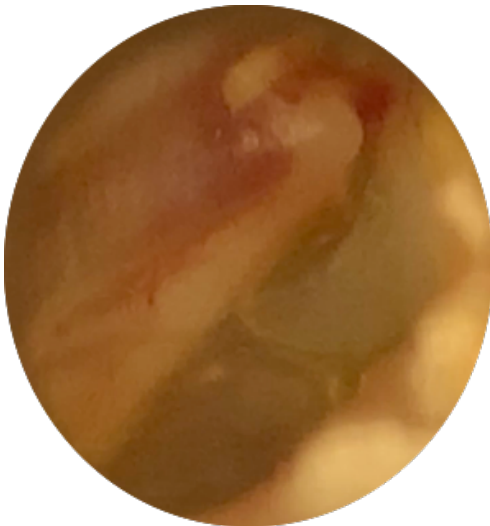


Figure 5 - CSOM

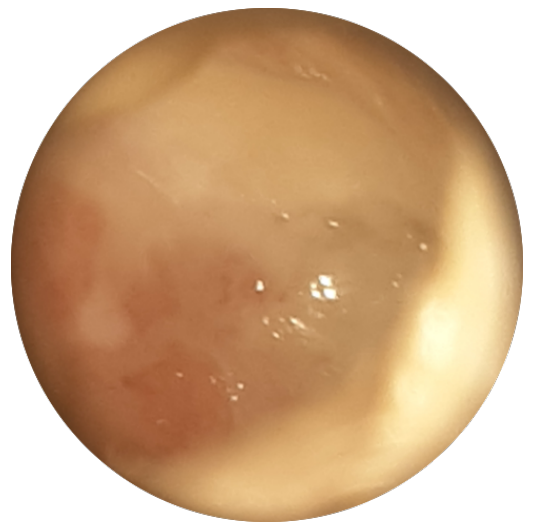


Figure 3 – Bullous Myringitis

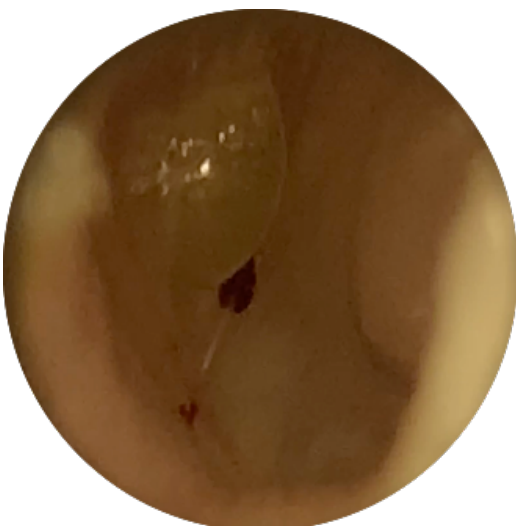


Figure 6 - Erythema

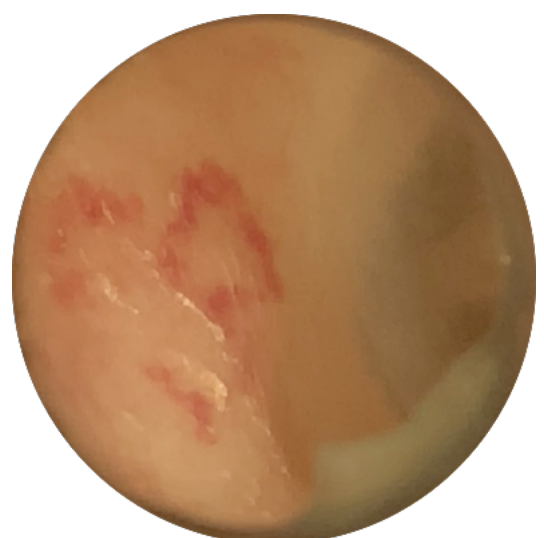




Figure 7 - Exostoses

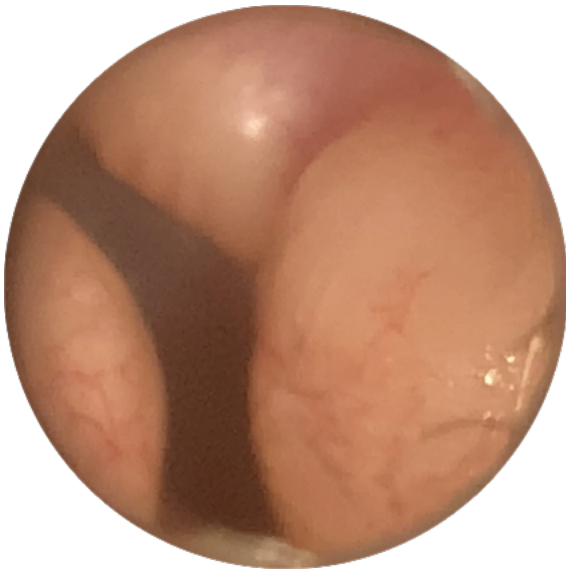


Figure 10 - Granulation Tissue

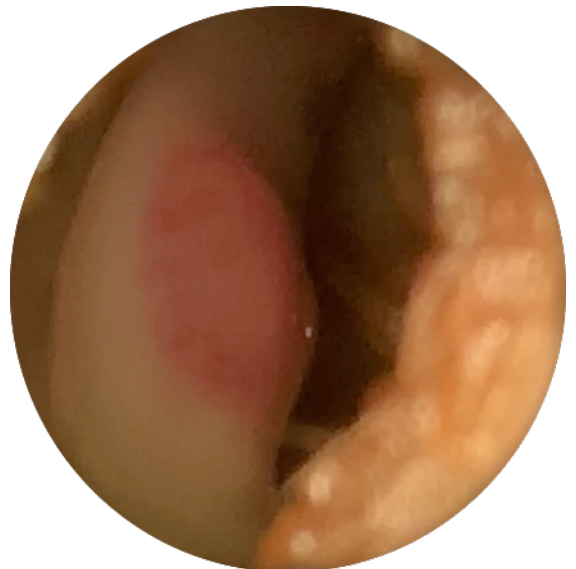


Figure 8 – False Fundus

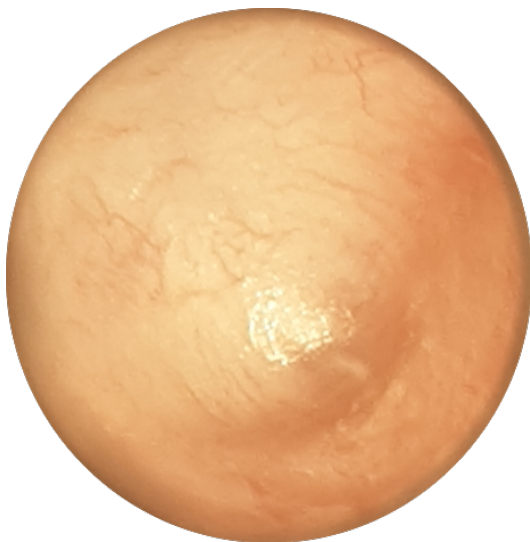


Figure 11 - Grommet



Figure 9 – Furuncle



Figure 12 - Haematoma

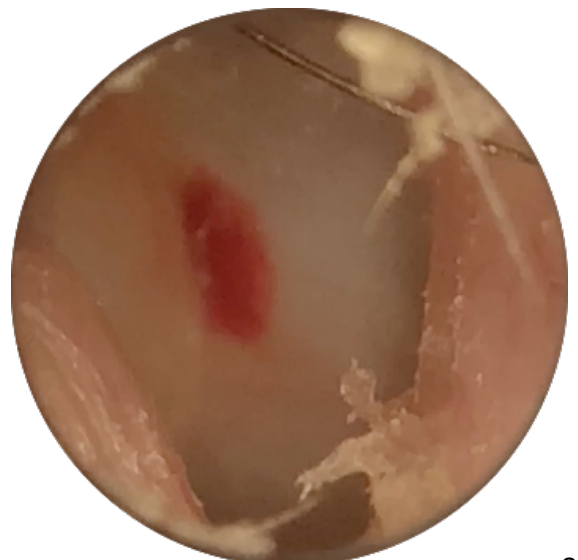


Figure 13 - Osteoma



Figure 16- Otitis Media with Effusion

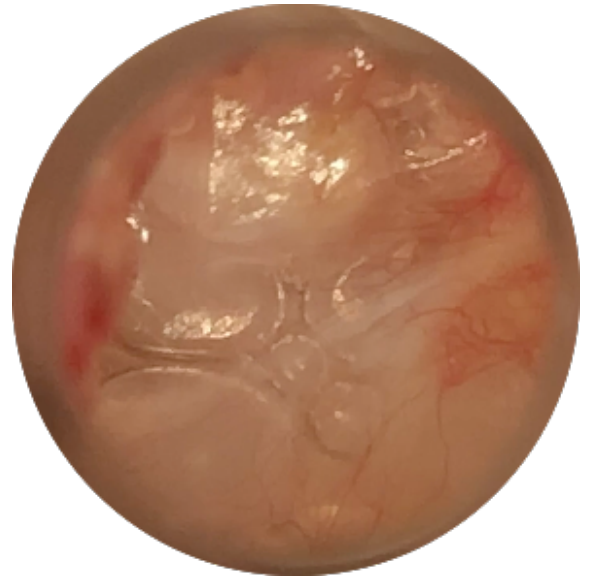


Figure 14 - Otitis Externa

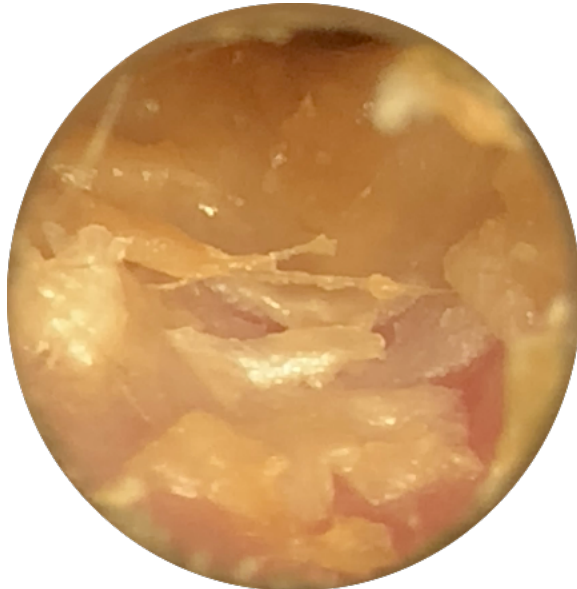


Figure 17 – Otomycosis

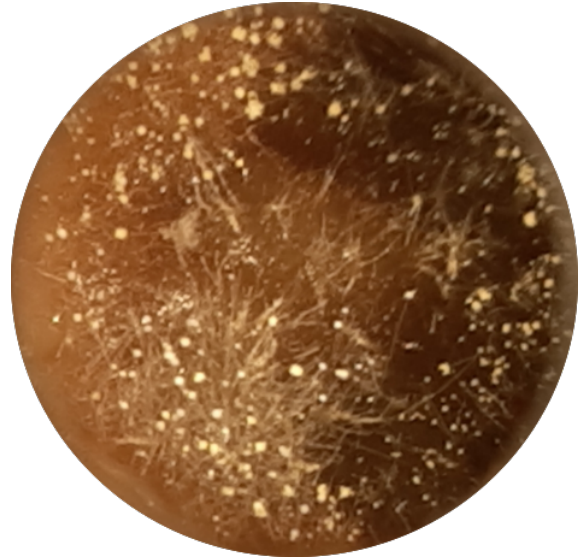


Figure 15 – Otitis Media

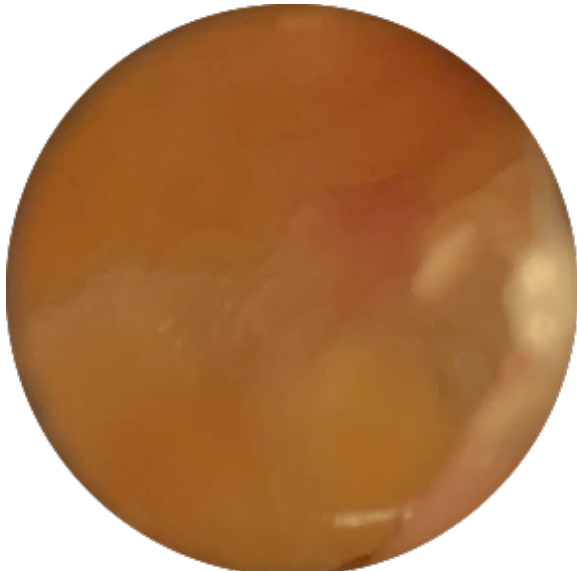


Figure 18 - Papilloma



Figure 19 – Pars Flaccida



Figure 22 - Polyp



Figure 20 – Pars Tensa



Figure 23 – Retracted TM

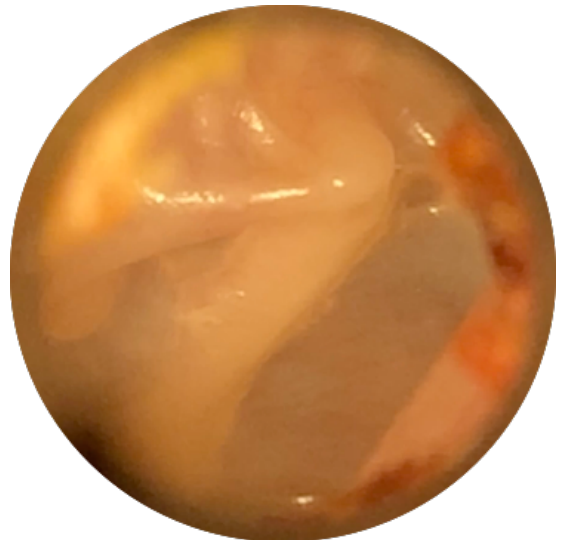


Figure 21 - Perforation

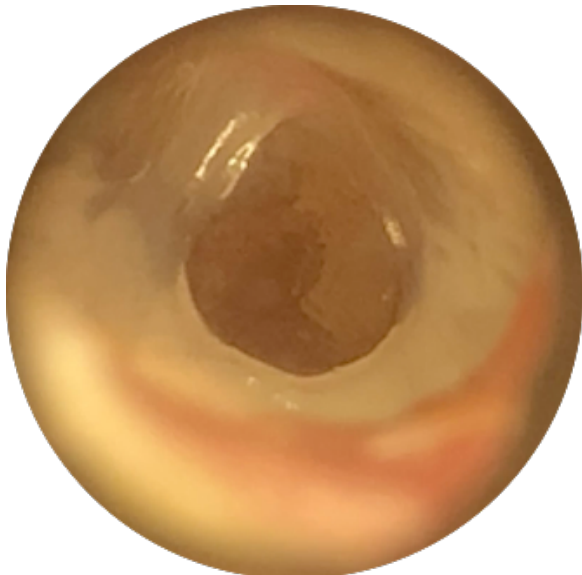


Figure 24 – Retraction Pocket

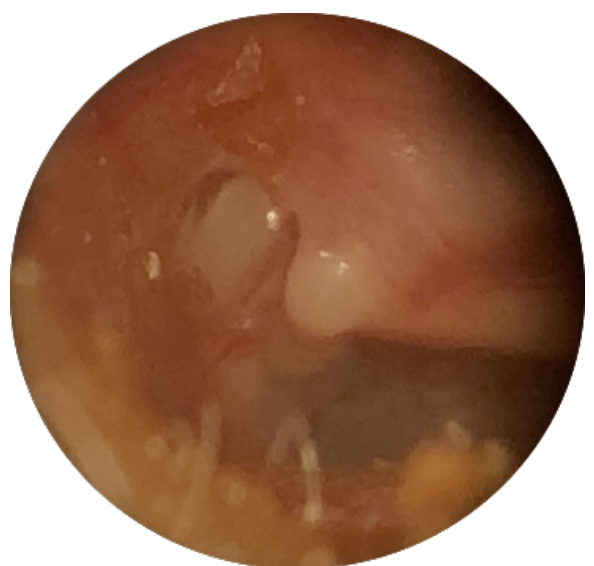




Figure 25 - T-Tube



Figure 26 – Tympanosclerosis

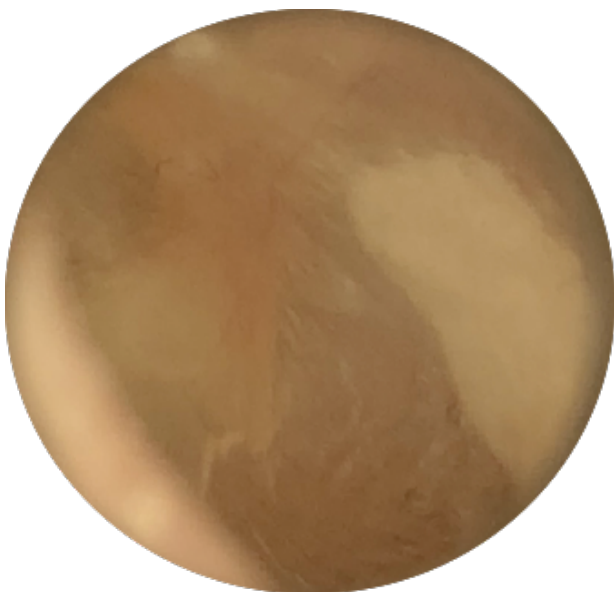
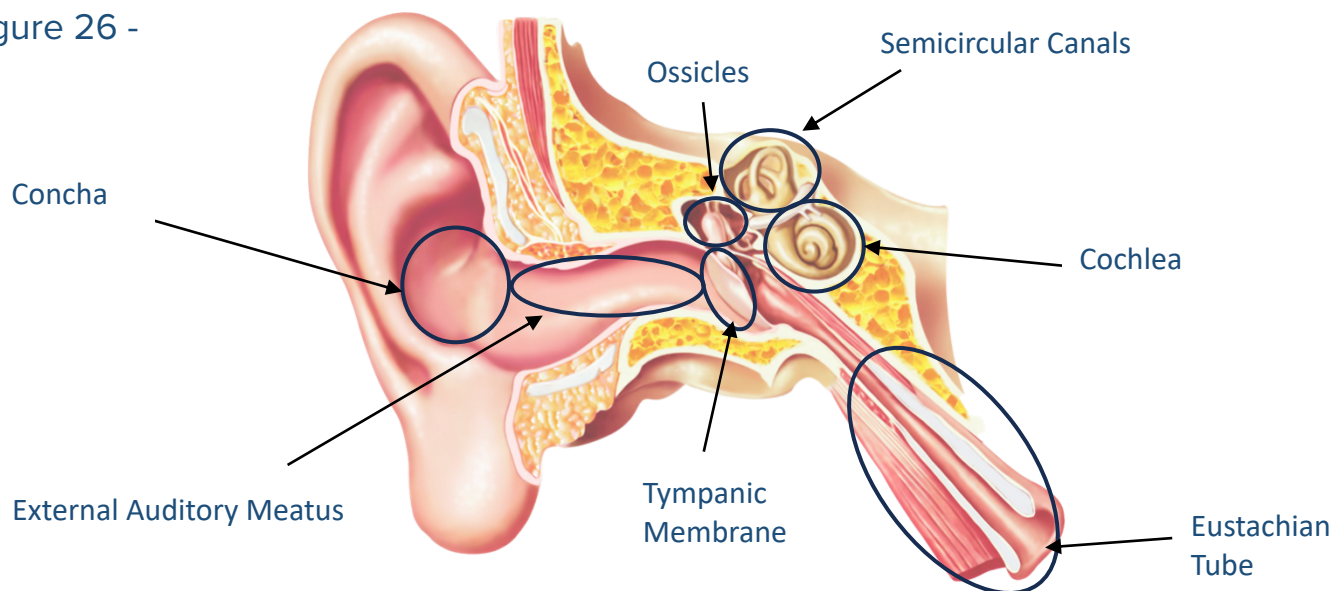


Figure 26 -



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