

DISEASES of the External Ear

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FURUNCULOSIS



- This is an infection of the **hair follicle** and so can occur only in the skin of the outer part of the meatus
- **Acute pain** that may spread up the side of the head into the jaw, or down the neck as far as the shoulder.
- There is **swelling of the parts around the ear**.
- **Tenderness on pressure** is marked



OTITIS EXTERNA

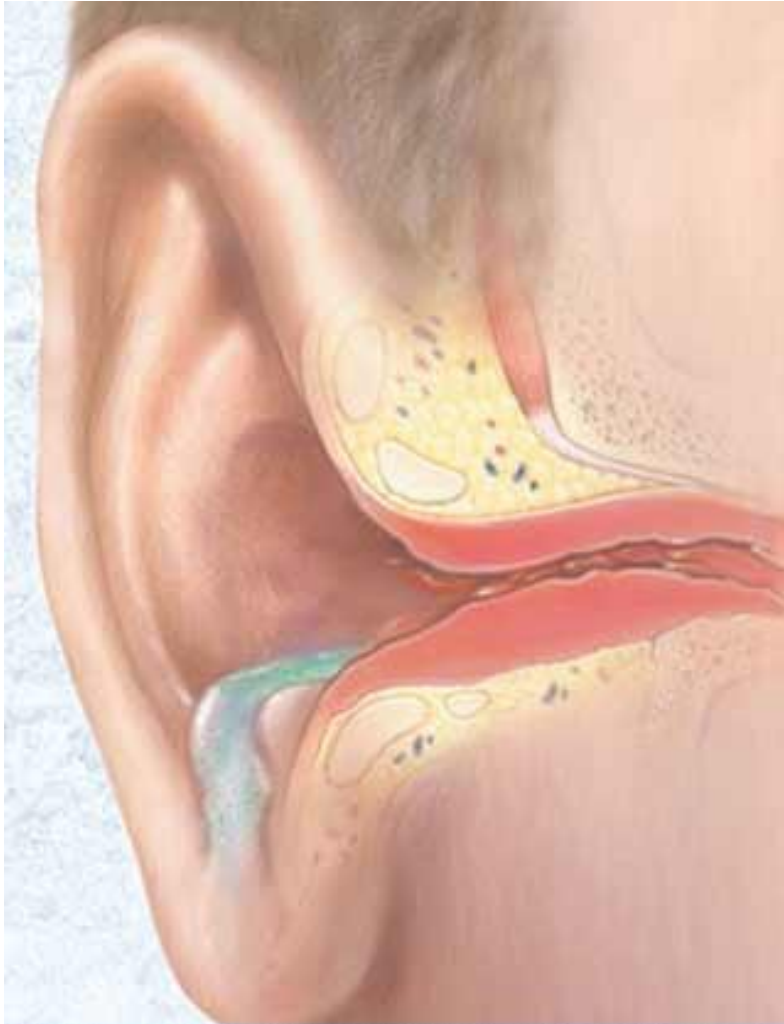
This is a generalized infection involving as a rule the whole skin of the external canal

Aetiology.

- hot, humid climate ('Singapore ear');
- all irritants which induces scratching of the ears (dust);
- a tendency to eczema;
- sensitization to certain antibiotic drops.



OTITIS EXTERNA



- The meatus is acutely inflamed, tender and weeping freely.
- It is extremely painful to handle and nothing can be seen of the interior of the canal without causing the patient acute pain.



OTITIS EXTERNA



- Pain, located in the ear itself;
- Purulent discharges;
- Slight hearing loss;
- Usually temperature is normal.



OTITIS EXTERNA



WAX IN THE EAR

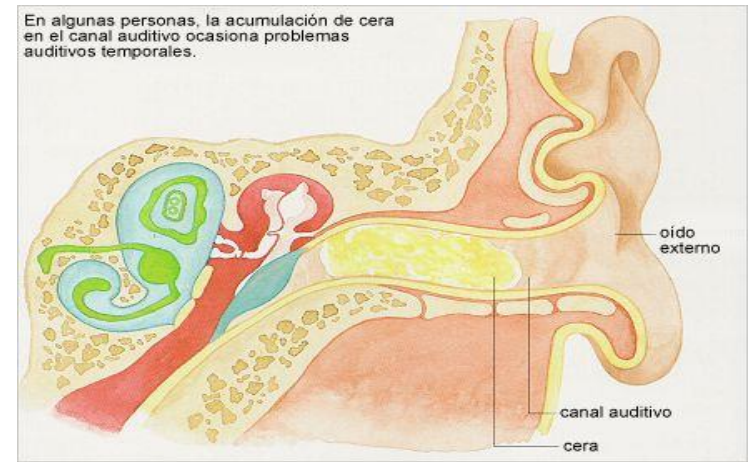
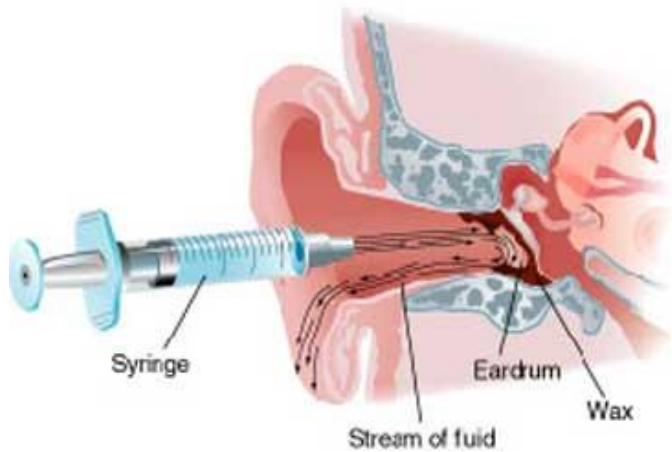


Wax in the ear is secreted by glands situated in the skin of the ear. Sometimes excessive wax may be formed, as a result of which it collects in the ear. Normally, wax is produced only in a moderate amount and is usually extruded by the movement of chewing.

The main symptom is **hearing loss.**



WAX IN THE EAR



Wax can be removed safely, by the careful use of a wax curette or by the more usual method of syringing.

Nota bene! You mustn't syringe the wax if patient has dry perforation of the eardrum



Acute otitis media

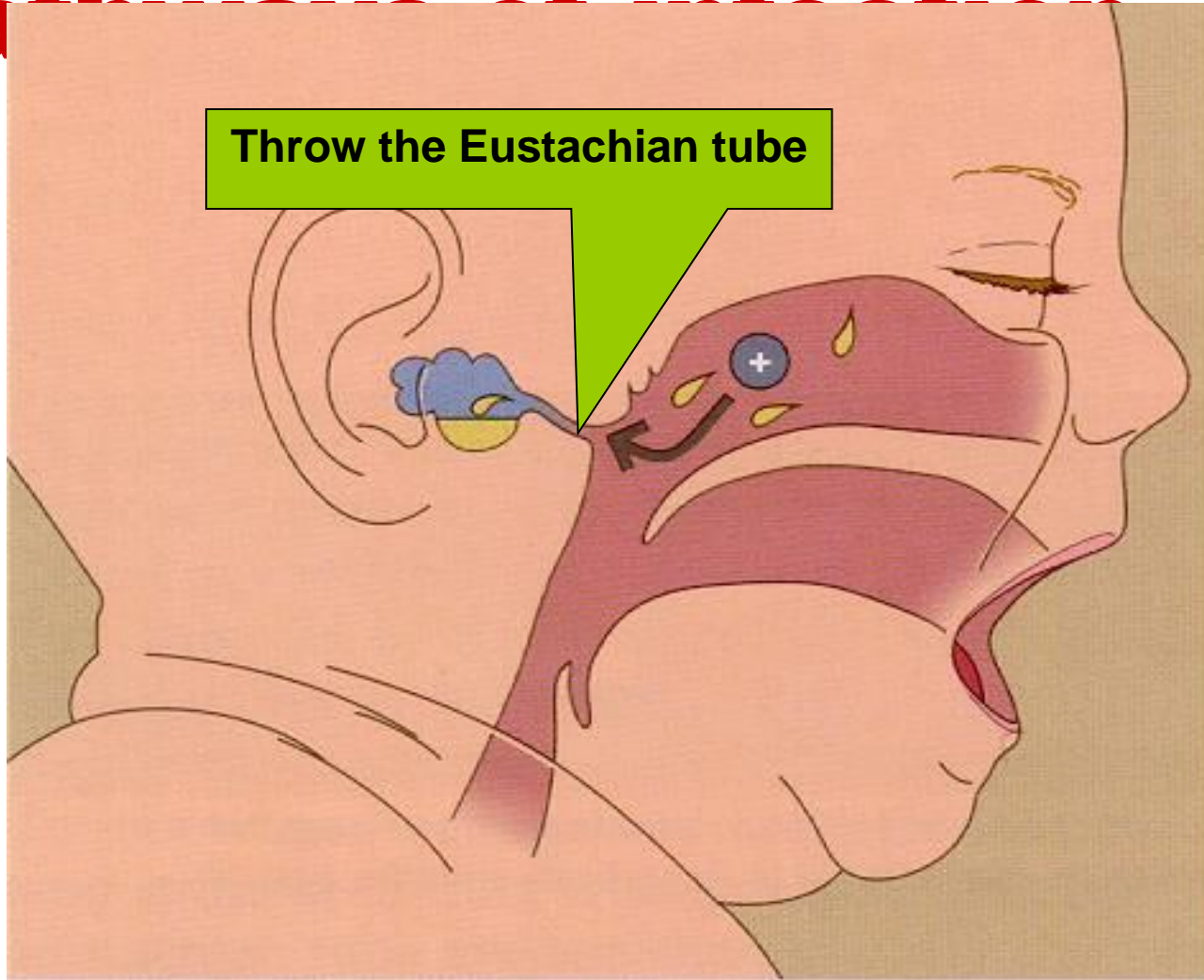


The middle ear:

- **The tympanum**
- **The Eustachian tube**
- **The mastoid cells**



Pathways of infection

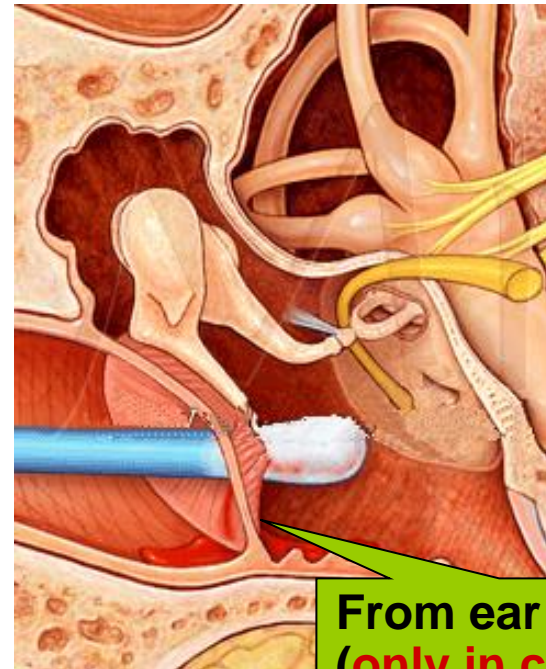


Pathways of infection

Infection may be diffuse (influenza, measles, scarlett fever)



Measles



From ear channel
(only in case of pre-existing eardrum perforation)



The great frequency of otitis in children



explained by:

- their **short and wide auditory tube**.
- **recumbent position** of the body in newborns (in this case infection from nasopharynx can easily enter to the tube and further to the tympanum)
- **presence of a myxoid tissue** in the middle ear.



Symptoms:

Pain

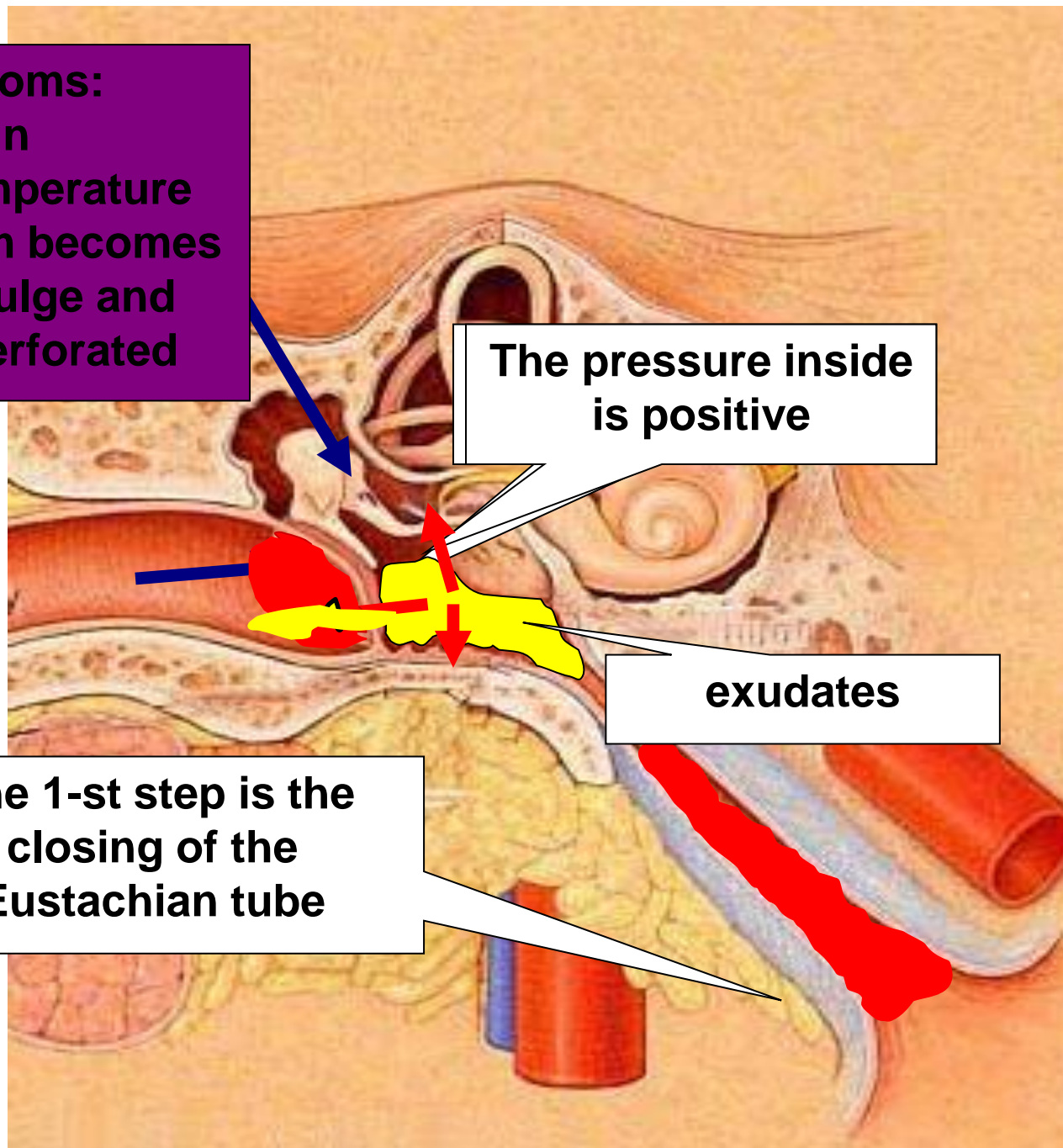
Rise in temperature

The eardrum becomes red and bulge and finally - perforated

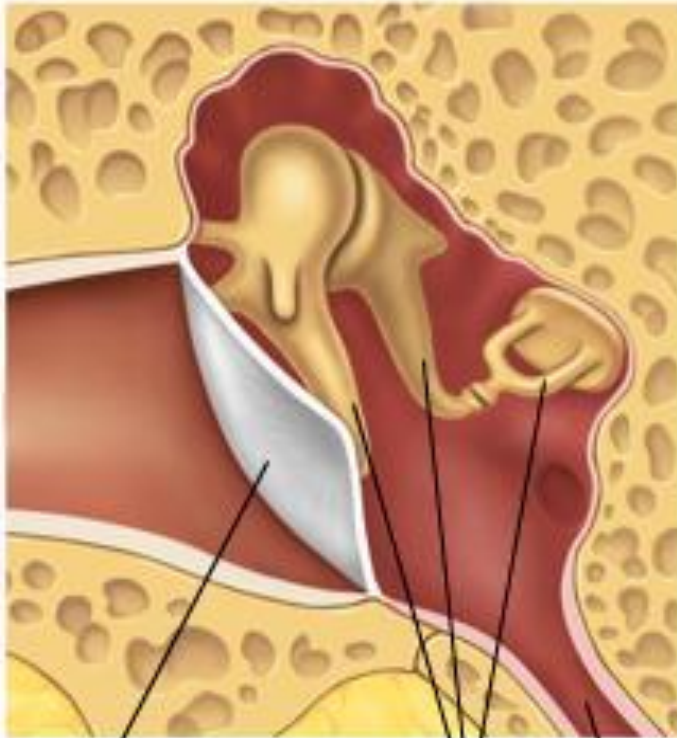
The pressure inside is positive

exudates

The 1-st step is the closing of the Eustachian tube



Normal middle ear

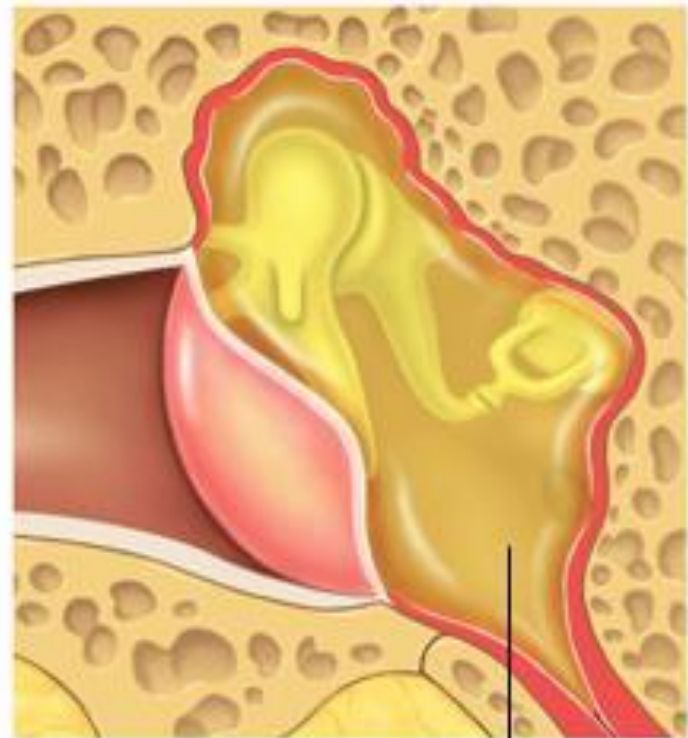


Ear drum

Auditory bones

Eustachian tube

Otitis media



**Infected fluid
in middle ear**



Three clinically distinguished periods



- **Before perforation**
- **Purulent discharge**
- **Period of restoration**



The period before perforation

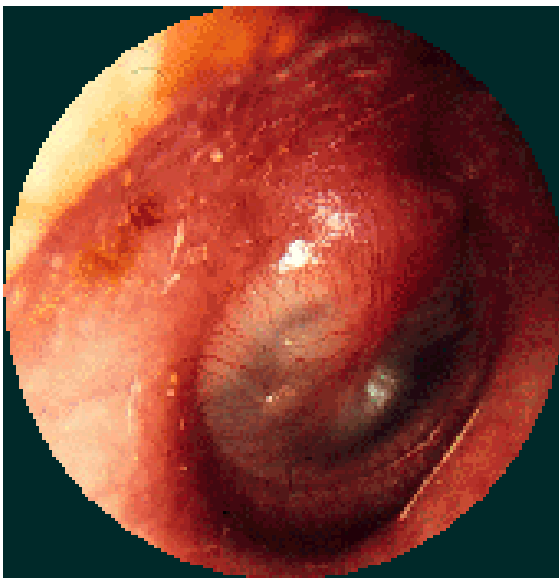
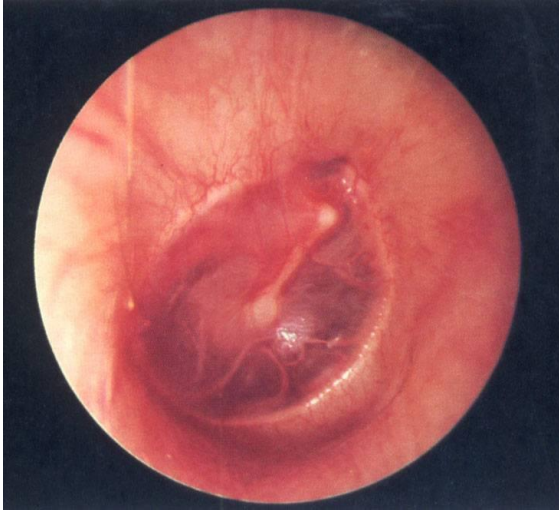


Symptoms:

- Pain, located in the ear itself!!!
- Hearing loss
- Rise in temperature



The period before perforation

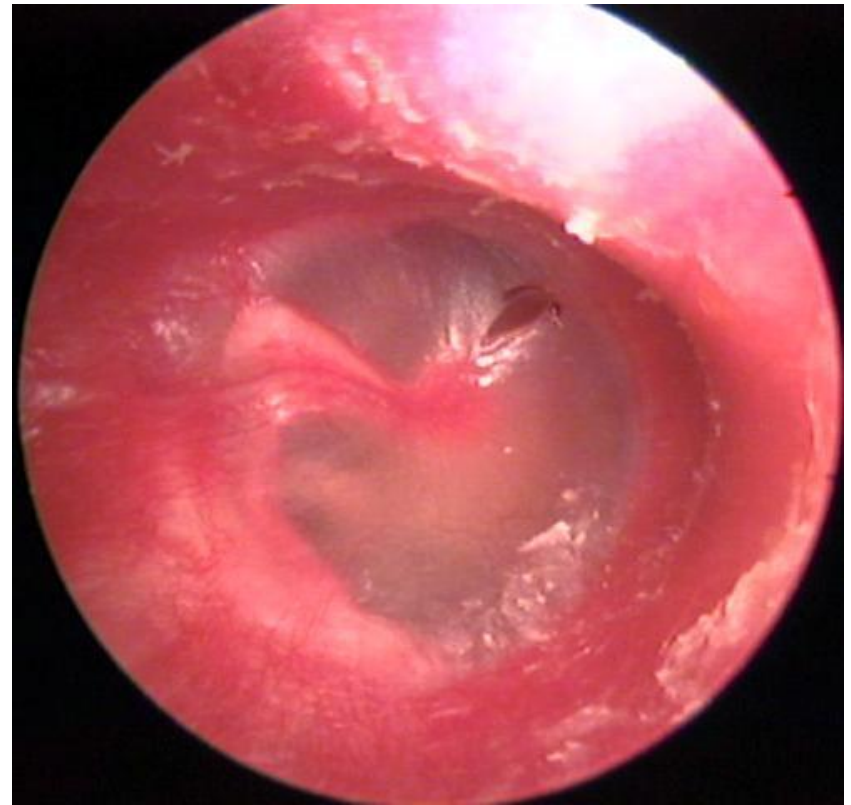


The period before perforation

- There is **no discharge** in the ear channel.
- The eardrum **has no perforation**.
- The eardrum becomes **hyperemic** with vessels injections in earlier stage.
- The **light reflex disappears**, the landmarks of eardrum become invisible.
- The eardrum begins **to bulge** and finally becomes perforated.



The period of purulent discharge



The period of purulent discharge



Symptoms:

- No Pain!
- Hearing loss (but with slight signs of improvement)
- No fever!
- Purulent discharge from the ear
- Perforation of the eardrum



The purulent discharge period



The meatus is full of discharge and if this is mopped away the discharge may be seen coming from the perforation. Pulsation of discharge is present and is synchronous with the pulse



TREATMENT



- **Conservative**
- **Surgical**



Conservative treatment

- **Antibiotics (N.B.! – not use antibiotics of the aminoglycoside group!)**
- **Nasal decongestants for the improving of the tube functions**
- **Antihistamines and antiinflammatory drugs**
- **Ear drops**



Ear drops



- **During the first period:**

Spirit ear drops (**spirit boric acid, aurisanum**)

- **During the second period:**

Water ear drops which contain antibiotics, steroids (**Otofa**)

Don't use ear drops with antibiotics of the aminoglycoside group! (**sofradex, garazonum**)



Myringotomy (tympanotomy, tympanostomy)



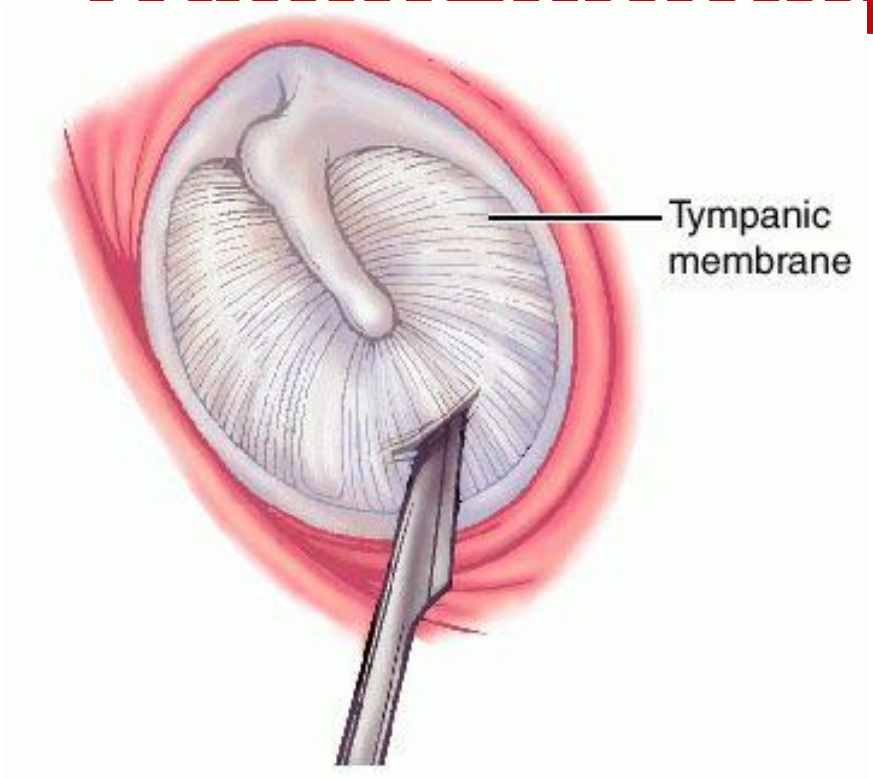
This is the incision of the eardrum.

It is performed in the end of the first period in case of:

- **Severe ear pain**
- **High temperature**
- **High intoxication**
- **Threat of development of the intracranial complications**



Myringotomy (tympanotomy)



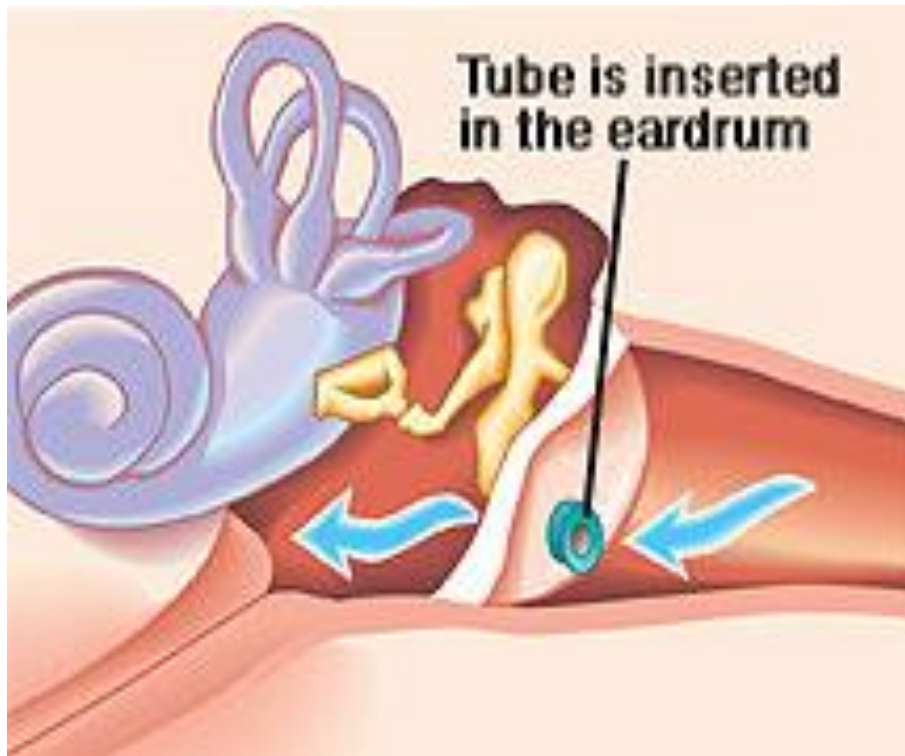
Tympanotomy



Tympanotomy



Tympanostomy



Surgical treatment

- The operation is called **antromastoidotomy**.



It is performed in case of complications



The characteristic properties of the acute otitis media in newborn



- **The signs of meningism may be present.**
- **The main symptoms of the disease may be fever and parenteral diarrhea**



The outcomes of acute otitis media

- Full recovery of hearing;
- Dry ear perforation;
- Development of mucuous otitis;
- Development of chronic purulent otitis

