There are two types of ear infections depending on the site of origin. An outer ear infection or acute otitis externa (AOE) is an infection of the tube connecting the outer ear and eardrum and a middle ear infection or acute otitis media (AOM) is an infection of the parts of the ear behind the eardrum.

Both types of ear infections are very common causes of earache.

**What is otitis externa?**
Otitis externa, also known as “swimmer’s ear”, is the inflammation and infection of the skin of the entire outer ear canal. The infection can be localized and then forms an abscess. Acute otitis externa can affect any gender and age and is caused by bacteria. Occasionally, a fungal or yeast infection can occur, especially if antibiotic ear drops are used too often, and for prolonged periods of time.

**Causes of acute otitis externa**
- Excessive cleaning of the ear canal with ear buds or finger nails will remove the protective layer of wax.
- Frequent exposure to water, in regular swimmers.
- Weather – hot and humid climates encourage growth of bacteria in the ear canal.
- Skin conditions such as eczema and psoriasis may affect our ear canals and cause otitis externa.

**Symptoms of acute otitis externa**
- Patient presents with pain, fullness or pressure in the ear and a watery or puss-filled, foul-smelling ear discharge.
- As the condition worsens pain may become severe and the ear canal may become completely blocked. Because of swelling and debris causing hearing impairment.

**Treatment of acute otitis externa**
- The treatment goal is to cure the infection and to return the ear canal to a healthy condition.
- When the infection is very mild and in the initial stages, simply refraining from swimming or washing hair for a few days
- Ear is extremely painful on touching or when chewing.
can get the infection under control.

- However if the infection becomes severe with severe pain and ear discharge it is recommended to seek medical care.
- In some cases the drainage in the ear canal builds up, and the infection won’t clear until the debris and pus is removed. Referral to an otolaryngologist (an ear, nose, and throat (ENT) specialist) may be required.
- Once the ear is clean, the infection will be treated with antibiotic ear drops or combined antibiotic and steroid drops. The antibiotic will help to fight the infection, and the steroid will reduce inflammation and swelling. The infection will resolve within a few days.
- In a few cases when the ear canal is very swollen and ear drops will not penetrate the ear canal, the physician will insert a wick?? Saturated with antibiotic ear drops for a few days.
- Pain medication either OTC or prescription is often needed for a few days until the infection is under control.
- Although acute otitis externa will resolve within a few days with local antibiotic ear drops, the complete return of hearing and production of normal wax will take a few more days.
- The ear canal should be kept dry during treatment. An earplug or small cotton ball can be used during bathing to keep water out.

- Only in a few cases if the infection extends to the pinna?? Or the face, an oral or systemic antibiotic might be prescribed, or in severe cases admission to a hospital, where intravenous antibiotics can be administered, is necessary.

If the infection persists and there is a poor response to the antibiotics one has to exclude other causes of otitis externa such as:

- A fungal or yeast infection.
  Treatment: in case of fungal otitis externa, the ear canal must be cleaned and anti-fungal drops or ointment inserted.

- A localized infection causing an abscess
  Treatment: An abscess of the ear canal, if not responding to systemic or oral antibiotics, must be drained by a doctor.

Prevention of acute otitis externa

- Keep your ears dry. Dry your ears after swimming or showering.
- Avoid swimming in polluted water.
- Use well-fitted and clean ear plugs.
- Avoid the use of cotton buds. Your ears have a self-cleaning mechanism.
- Treat skin conditions such as eczema and psoriasis.

What is otitis media or middle ear infection?
Otitis media is an infection of the middle ear
that causes inflammation (redness and swelling) and a build-up of fluid behind the eardrum. Acute otitis media is often seen in children between three to six years old and only sometimes occurs in adults.

Younger children are more prone to middle ear infections because of the shape and size of their Eustachian tube, which is the passage connecting the middle ear to the throat. Under normal circumstances this passage remains open and allows unwanted fluids and debris to drain from the ear to the back of the throat.

Most middle ear infections occur when an infection such as a cold, leads to a build-up of mucus in the middle ear and causes the Eustachian tube to become swollen or blocked. This means mucus can’t drain away properly, making it easier for an infection to spread into the middle ear.

Causes of acute otitis media
- Ear infections often originate from viral colds.
- Children who are exposed to other children such as in day care settings are at higher risk of catching common colds and thus ear infections.
- Exposure to cigarette smoke.
- Allergies to pollen, dust, etc.
- Bottle feeding, if being fed while lying down, causes the collapse of the Eustachian tube and can lead to middle ear infection.
- Enlarged adenoids obstructing the Eustachian tube and preventing drainage of fluid from the middle ear.

Symptoms of acute otitis media
- Acute otitis media usually starts with a common cold.
- The child presents with a localized mild earache which becomes severe as the infection progresses.
- This is associated with hearing impairment, fever and generally not feeling well.

Signs in young children
As babies are unable to communicate the source of discomfort, it can be difficult to tell what’s wrong with them. Signs that a young child might have an ear infection include:
- Pulling, tugging or rubbing their ear.
- Irritability, poor feeding or restlessness at night.
- Coughing, or a congested or runny nose.
- Diarrhea
- Unresponsiveness to quiet sounds or other signs of difficulty hearing, such as inattentiveness.
- Loss of balance.
- Purulent ear discharge.

Treatment for acute otitis media
Most ear infections clear up within three to five days and don’t need any specific treatment. However, see your GP if you or your child have:
- Symptoms showing no sign of improvement after two or three days.
- Persistent fever and a lot of pain.
- A discharge of pus or fluid from the ear.
After being assessed by the doctor the child might be treated with a systemic, oral antibiotic and medication for pain and fever. Most children respond well to the treatment.

If there is no response to the antibiotic the child should be referred to an ENT specialist for possible drainage of the middle ear infection.

**Complications of acute otitis media**
- Perforation of tympanic membrane, ear drum.
- Glue ear or serious otitis media.

**Perforation of the ear drum**

In some children with acute otitis media, if the infection was not diagnosed and treated adequately, in time perforation or rupture of the ear drum may occur.

In most cases it will heal spontaneously, especially with the help of antibiotics.

In some children however, perforation in the ear drum becomes permanent causing hearing impairment and chronic ear discharge and will require surgical treatment.

**“Glue ear” or serious otitis media**

Glue ear is caused by accumulation of sterile fluid in the middle ear after a bacterial infection was treated with antibiotics. Sometimes this fluid is not absorbed or drained via the swollen or blocked Eustachian tube and does not respond to treatment with antibiotics. As a result, the child might develop hearing impairment, slow speech and poor motor skills.

To prevent this, drainage tubes called “grommets” are inserted in the middle ear to drain fluid. This procedure is done under general anaesthetic by an ENT specialist.

For more information consult with a healthcare provider at your nearest Platinum Health facility or kindly contact the Platinum Health Client Liaison team on 014 591 6600 who will provide you with contact details of Platinum Health healthcare providers or facilities. Alternatively visit the Platinum Health website: www.platinumhealth.co.za