## **EAR INFECTIONS**

I am currently in my early forties and I often get ear infections. I know that ear infections are most common in children, but is it normal for adults to get them too? What causes these infections and are there any ways to avoid getting infected? I was also advised to avoid swimming whilst having an ear infection, why is this so? Will ear infections always result in a fever and hearing loss? Also, what are the treatments available for ear infections?

The middle ear is a small M&M sized air space behind the eardrum which drains to the nose via the Eustachian tube. The Eustachian tube also equalises pressure of the middle ear with the nose. When the Eustachian tube locks suddenly, example, during the descent of a plane flight, the pressure buildup in the ear can be very painful and this may lead to fluid collection in the middle ear. Young children's Eustachian tubes are shorter and more horizontal, increasing the risk of retrograde infection from the nose, reflux and milk contamination. Additionally, they have more allergic nose problems, adenoid hypertrophy and upper respiratory tract infections.

An adult's Eustachian tube is longer and more horizontal, but they also get middle ear infections if they often have allergies of the nose or sinusitis. After a cold, middle ear fluid may persist for one to three months if not treated, causing up to a 50% reduction in hearing. Adults also have higher risk of nose cancer or tumour, which can block the Eustachian tube and cause middle ear infection. Those who have undergone radiotherapy to the head and chemotherapy also have more middle ear fluid trapped.

Chronic middle ear infections often are painless and without fever. Patients complain of blocked ear, ringing in the ear and sometimes, mild imbalance. Avoid cigarette smoke, treat colds and allergies or sinusitis early. Surgical placement of grommet tubes on the eardrum to drain the middle ear fluid may be needed in chronic cases. Grommets placement can prevent erosion of middle ear bones, scarring and permanent eardrum and hearing loss damage.

Acute ear infections of the ear canal or middle ear can be painful and be associated with fever. If high fever and pain do not improve after two days, antibiotics are often required to avoid brain infections as a very thin bone separates the ear from the brain. Usually, topical ear drops suffice. However, oral antibiotics are needed if there is deep seated bone infection or middle ear

infection. In a rare type of ear canal infection associated with diabetic patients - malignant otitis externa - the infection can be very severe and hard to treat, and may result in severe pain and also brain infection or even death. These infections will require intravenous antibiotics in hospital and surgical treatment, together with careful control of diabetes.

A more common type of ear canal infection usually presents itself with an unpleasant smelling ear discharge. It can be due to poor hygiene, dirty pools, traumatic digging of the ear rubbing off protective wax and skin layers, narrow tortuous canals or skin disorders. Many patients overuse cotton buds or metal diggers to remove ear wax, tearing skin and removing protective ear wax. In cases where the discharge is persistent and profuse despite ear drops and antibiotics, there may be deep-seated mastoid bone infection, not just ear canal or middle ear infection. Or there can be middle ear cholesteatoma tumour. A thorough microscopic ear examination after careful cleaning is important before antibiotic and antifungal creams or ear drops can work. Ear swabs and CT scans may be needed in difficult cases.

## Specifically for swimmer's ears:

Do not swim in dirty water, or when you have an ear infection as you contaminate the pool water too. If you swim frequently, we can customise swim plugs to fit your ear canal. During baths, bathing caps can help keep water out of the ears. After swimming, shake out the water from the ears. If you are sure there is no perforation of the eardrum, over-the-counter swim ear drops can be used to dry out the ear canals if you get frequent ear infections. Some also make their own mix of acetic acid or combination of isopropyl alcohol and white vinegar to dry out their ears. If infection persists, do see a doctor so that the doctor can clean out the ear and give appropriate oral or topical antibiotic and pain ear medications. PRIME



Adj Assoc Prof Lynne Lim Senior ENT Consultant Lynne Lim Ear Nose Throat & Hearing Centre (Child & Adult)

#17-07 Mount Elizabeth Medical Centre (Orchard) 3 Mount Elizabeth, S228510 www.drlynnelim.com Tel: +65-6737 7787

#15-02, Connexion-Farrer Park Medical Centre 1 Farrer Park Station Road, S217562

## **Dr Lynne Lim**

An Adjunct Associate
Professor and Senior ENT
Consultant, Dr Lynne Lim
is a National University
of Singapore (1992)
and Harvard School of
Public Health (2005)
graduate. She is also a
fellow of Royal College of
Surgeons in Edinburgh
and has received her ENT
Specialist Accreditation
from the Ministry of
Health in 2001.





