DON'T IGNORE THE SIGNS

HEARING LOSS:
What Experts Want You To Know

We spoke with Dr Yuen Heng Wai, Ear, Nose and Throat (ENT) specialist, and RadLink Consultant Radiologists Dr Yong Yan Rong and Dr Choong Chih Ching to discuss hearing loss, from early warning signs to the advanced scans that help pinpoint the cause.

Dr Yuen Heng Wai

Q1

Dr Yuen, what exactly is hearing loss?

Dr Yuen: Hearing loss means you are not hearing as well as you should. It can be mild, where you miss softer sounds, or complete, where you cannot hear at all. Sound normally travels into your ear canal, makes your eardrum vibrate, and passes through three tiny bones in your middle ear to the cochlea. The cochlea changes those vibrations into nerve signals your brain understands. If any part of this system is damaged or blocked, your hearing is affected.

Q2

How would someone know if they are starting to lose their hearing?

Dr Yuen: Often, it sneaks up on people. You might notice you are asking others to repeat themselves, turning up the TV volume, or struggling to follow conversations in noisy restaurants. Some people think everyone is mumbling. Other signs include ringing in the ears, ear pain or discharge, and even dizziness.

Q3

What usually causes hearing loss?

Dr Yuen: There are two main types.

- **Conductive hearing loss** happens when something stops sound from reaching the inner ear, such as earwax buildup, fluid from infections, or a hole in the eardrum.
- **Sensorineural hearing loss** happens when the inner ear or hearing nerve is damaged. This can be due to aging, long term loud noise exposure, head injuries, certain illnesses, or genetic factors.

Q5

Should I wait to see if it gets better?

> No. If you suddenly lose hearing, treat it as an emergency. The earlier we see you, the better the chance of recovery. Waiting can cause permanent damage.
>
> — *Dr Yuen*

Q6

Is there really a link between hearing loss and dementia?

Dr Yuen: Yes. The Lancet Commission reports in 2020 and 2024 both identify hearing loss as a modifiable risk factor for dementia. Reduced hearing means less stimulation for the brain, which can speed up cognitive decline. Untreated hearing loss can also affect mental health. People may feel isolated, frustrated, and even depressed.

Hearing loss is a modifiable risk factor for dementia

Q7

What tests or scans are used to check for hearing loss?

Dr Yong Yan Rong and Dr Choong Chih Ching, Consultant Radiologists at RadLink: Besides standard hearing tests done by the ENT specialist, imaging can give us a detailed look inside the ear and along the hearing nerve to help find the cause.

A CT Temporal Bone Scan uses a special X-ray to create detailed images of the outer, middle, and inner ear bones. This is especially useful for conductive hearing loss caused by blockages or structural changes.

An MRI Internal Auditory Meatus (IAM) uses magnetic fields to capture high-resolution images of the inner ear and the hearing and balance nerves. It is essential when we suspect sensorineural hearing loss due to nerve or inner ear problems.

Dr Yong Yan Rong

Dr Choong Chih Ching

Q8

What role does contrast-enhanced MRI play in diagnosing ear or nerve-related conditions?

Dr Yong and Dr Choong: Contrast-enhanced MRI involves injecting a safe dye into the bloodstream before the scan. This makes certain tissues and blood vessels appear clearer on the images. It is especially helpful in detecting inflammation of the inner ear or nerves, identifying infections, and spotting small tumours such as vestibular schwannomas that might press on the hearing or balance nerves. This level of detail allows for a more accurate diagnosis and helps the ENT specialist plan the best treatment.

Q9

How accurate are these scans in identifying subtle causes of hearing loss, such as early otosclerosis or mild nerve inflammation?

Dr Yong and Dr Choong: Prospective studies assessing HRCT accuracy reported sensitivity of approximately 81% in identifying benign lesions and inflammatory conditions, 91% for detecting otosclerosis in conductive hearing loss, and nearly 100% for malignancy. However sensitivity can drop for small or early lesions. In sensorineural hearing loss, MRI is the preferred modality for nerve imaging as CT often misses small tumours. In patients with sudden hearing loss MRI is preferred in most cases, unless there are features of chronic ear disease. Dr Yuen will recommend which is the most suitable imaging modality for your condition during your consultation.

FINAL ADVICE TO READERS

Do not ignore the signs.

Hearing connects you to people, experiences, and the world around you. If you notice changes, get checked early. Protecting your hearing can also protect your brain and your quality of life.

— Dr Yuen Heng Wai

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Questions? Get in touch with our team

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