Hearing problems
When you need an imaging test—and when you don’t

Tinnitus is the medical term for “ringing in the ears.” This is a common condition. People who have it may hear roaring, buzzing, whistling, humming, or other noises. Another condition, sudden hearing loss, is when hearing is lost all at once or over a few days. It usually affects only one ear.

For these conditions, imaging tests can be unnecessary, costly, or even harmful. Here’s what you should know.

With tinnitus, imaging tests usually don’t help. Tinnitus often goes away on its own, but it can last for a long time. It can interfere with daily life. Sometimes doctors find a problem that can be fixed, such as too much earwax, an ear infection, or the use of certain medicines.

In most cases, tinnitus is related to hearing loss. It may be related to muscle tension in the head and neck, but often there is not a cause that can be fixed. There are ways to manage it, though. To learn about your tinnitus and recommend treatment, a doctor should do a complete medical history, a physical exam, and often a hearing test.

Imaging tests, such as a CT scan or MRI, are very unlikely to find a serious condition, unless your history and exam show other problems.

With sudden hearing loss, imaging tests are not the first step.
If you have sudden hearing loss, you should see a doctor right away. You should be checked for earwax, fluid in the ear, or other things that can block sound. If no physical cause is found, you may have sudden sensorineural hearing loss (SSNHL). This is damage to the inner ear or the hearing nerve. It’s usually in just one ear.

When they suspect SSNHL, many emergency room doctors order a CT scan of your head. They want to make sure you’re not having a stroke or another problem with your brain. But the scan isn’t useful, because hearing loss in just one ear is not a symptom of stroke (unless you have other symptoms).

Like tinnitus, SSNHL usually does not have a cause that can be fixed. But early treatment can help. After treatment, you should have testing to see if there is a growth on the hearing nerve. This type of growth isn’t cancer. But if left untreated, it can cause further hearing loss, dizziness, and facial nerve problems (this is rare).

**Imaging tests have risks.**

A CT scan uses radiation, which can increase the risk of cancer in the future. An MRI can be unpleasant. You are in a narrow and noisy tube. The noise can make tinnitus worse. In rare cases, the contrast dye used in some tests can cause side effects or an allergic reaction. The tests often lead to more tests, referrals to specialists, and unneeded anxiety.

**When are imaging tests useful?**

An imaging test may be useful for tinnitus if:

- The tinnitus sounds like your pulse or heartbeat.
- The tinnitus is only in one ear.
- You also have hearing loss and the loss is different in each ear.

A CT scan may be helpful for sudden hearing loss if:

- You had a head injury.
- You have chronic ear problems, such as infections, earaches, or drainage.

An imaging test may be useful for either condition if you also have symptoms of a problem with your nervous system, such as:

- Weakness or loss of feeling on one side of the face or body.
- Trouble speaking, seeing, chewing, or swallowing.