

Problems with hearing and balance

related to chemotherapy and radiation therapy



You are receiving chemotherapy or radiation therapy. You have seen an audiologist for an assessment. This fact sheet explains the importance of that assessment and what symptoms to watch for.

What is the audiology assessment for?

It's done **to see** if there is any damage to the hearing system. The earlier any damage is detected, the more we can do to reduce its impact on your daily life. Sometimes other damage can even be prevented.

Chemotherapy and radiotherapy treatments can have side effects that involve the ear. While these are less known than nausea and fatigue, for example, they also deserve your attention.

When is this assessment done?

Ideally, it's best to do an initial assessment **BEFORE** the first treatment. Those results can then be compared with other assessments done at later visits (after treatment has begun).

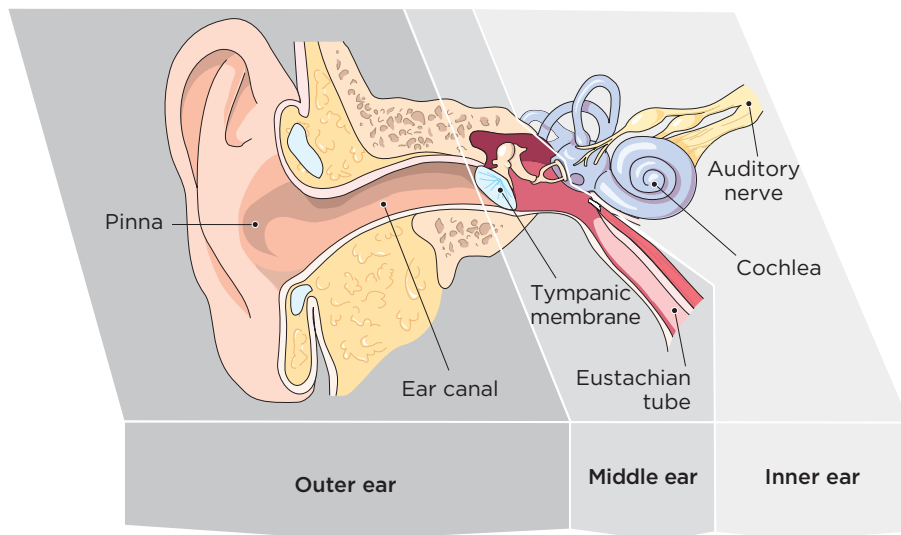
The timing and number of assessments vary from person to person. Talk to your audiologist.

How does the auditory (hearing) system work?

It has **3 components**. Each has its own role.

- **Outer ear:** transmits sound to the middle ear.
- **Middle ear:** amplifies sound and transfers it as mechanical vibrations to the inner ear; helps aerate the ear.
- **Inner ear:** transforms mechanical vibrations into neural messages, which will be transmitted to the brain; also helps with balance.

The treatments can affect any part of the ear. This can lead to hearing or balance problems.



What symptoms should I watch for?

Here are some possible symptoms. They can appear during your chemotherapy or radiotherapy treatments, or later (up to 2 years after the treatments end). Depending on the case, some symptoms may be temporary, while others may be permanent.

- You start having tinnitus, or your tinnitus gets worse: you hear sounds that don't come from an external source (whistling, buzzing, clicking, etc.).
- You have less tolerance for noise (such as car horns, sirens, children shouting).
- You notice that you don't hear as well as before in one or both ears; for example, you ask people to repeat more often, you have trouble understanding when there is noise around you, you need to raise the volume of the television, or you no longer hear sounds that you used to hear, like that of a digital thermometer



- You feel pressure, blockage, or pain in the ear.
- Your own voice or external noises seem to echo or be distorted.
- You notice your internal sounds, such as your heartbeat.
- You lose your balance or feel dizzy.

What should I do if I have one of these symptoms?

Call the Audiology Service directly. If needed, you will be given an appointment right away.

Important

- > **Report any symptoms**, even if they seem mild or temporary (for example, they last only one day). This is important! Do it as soon as you notice it.

Do these symptoms related to hearing and balance affect many people?

We don't really know. Several things affect whether symptoms will occur. For example, the type of treatment, the person's age, and the condition of the hearing system before the treatment begins.

What are the possible solutions?

There are different possible solutions. In each case, the approach is geared to the patient's own symptoms, needs, and treatments.

First, an audiologist will assess your hearing. If necessary, he or she will contact your oncology care team, who will look for ways to reduce the impact of chemotherapy or radiation treatments on your hearing and balance. For example, your doctor might consider whether a change in your treatment is indicated.

Meanwhile, the audiologist will suggest different options to help with your hearing problems (hearing aids, specific follow-up for tinnitus, etc.). See also the fact sheet: [Tinnitus](#). Together, you will choose the options that best suit you.



Is there anything else I can do to prevent damage to my hearing?

You can take action during and after your oncology treatments to help prevent hearing system problems.

During the treatments and in the following 6 months, loud noises can be more harmful to your ears.

Avoid loud noises (e.g. loud music, rock concerts, lawnmowers). If you can't avoid them, use ear plugs or earmuffs (hearing protectors). By cutting down on the noise around you, you reduce its possible impact on your hearing system.

Who can I contact for help or to answer questions?

Contact your audiologist or care team.

Audiology Service:

> **514 890-8236**

Name:

Tel.:



USEFUL RESOURCES

Other health sheets published by the CHUM are available. Ask for those that might fit your situation.



You can also find them on our website chumontreal.qc.ca/fiches-sante



NOTEPAD



Questions



Resource people and contacts

The content of this document in no way replaces the recommendations and diagnoses made, or the treatment suggested by your health professional.

To find out more about the Centre hospitalier de l'Université de Montréal chumontreal.qc.ca

