



مدينة الملك فهد الطبية  
King Fahad Medical City



## Ototoxicity





## What is Ototoxicity?

It is the exposure to certain medications/chemicals that can negatively affect hearing and/or balance.

## How Does Ototoxicity Affect Hearing/Balance?

Ototoxicity may cause damage to the structure and function of the sensory cells in the inner ear, which may result in;

- Hearing loss; usually affecting the high frequencies, but may progress to lower frequencies.
- Tinnitus.
- Feeling of fullness / pressure in the ear.
- Imbalance and / or dizziness.

In some cases, the damage is temporary or reversible when the medication is discontinued.

However, in other cases, the damage is permanent and irreversible.

## Which Medications Are Ototoxic?





There are more than 200 drugs that are known to have ototoxic side effects (and possibly on balance). Some of these drugs are:

- **Chemotherapy Drugs used to treat cancer** (e.g. Cisplatin, Carboplatin, Vincristine\*).
- **Antibiotics used to treat infections** (e.g. Amikacin, Gentamycin\*, Erythromycin\*, Vancomycin, Streptomycin, Neomycin).
- **Loop Diuretics used to treat certain heart and kidney conditions** (e.g. Furosemide\*).
- **Antimalarial Drugs used to treat Malaria** (e.g. Quinine\*).
- **Salicylates used to relieve pain and treat certain heart conditions** (e.g. Aspirin).

## What You Need to Know?

### Before Starting Ototoxic Treatment:

- You should discuss the potential effects (risks and benefits) of your treatment with your physician. 
- An audiologist should perform a baseline audiologic evaluation, prior to treatment, and counsel you on the signs and symptoms of any hearing-related changes. 
- The effect of ototoxicity is difficult to predict, and depends on various factors including: dosage, duration of treatment, age, presence of pre-existing hearing loss, genetic factors, and concurrent exposure to other drugs or therapies (e.g. head / neck radiation).

## During the Course of Ototoxic Treatment:

- You should have periodic hearing tests throughout your treatment depending on your particular treatment plan.
- In cases where the medication cannot be stopped or changed, the audiologist will discuss other ways to manage the effects of the hearing loss.
- Counseling and early intervention is important to discuss realistic expectations, communication strategies, amplification, and rehabilitation, in order to reduce the long-term impact of hearing loss and maintain a good quality of life.

## After Completing Ototoxic Treatment:

- Once you finish your treatment, you should have a post-treatment audio-logic evaluation, even if your hearing remains unchanged.
- Long-term follow-up evaluations may be needed to confirm that hearing is stable and to rule out any late onset hearing loss.

# لأن الوعي وقاية ..

إدارة التثقيف الصحي

Communication and Swallowing  
Disorders Dept.



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