

Important facts about batteries for contemporary hearing aids

There are many factors affecting the lifespan of hearing aid batteries

1 Individual hearing loss

As hearing loss worsens...

Is further amplification of sound needed



Increase in power supply

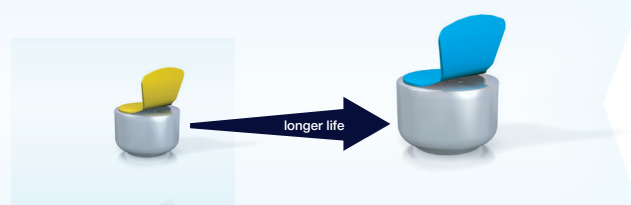


Decrease in battery life



2 Size of the battery

A physically smaller battery contains less space for the components needed to power the battery.



3 Individual use of the hearing aid

Two aspects to consider:

How many days per week is the hearing aid used?



How many hours per day is the hearing aid used?



4 Differences per hearing aid

Features of today's digital hearing aids, such as:

Additional features

- FM system
- Tinnitus masking

Wireless / Bluetooth features

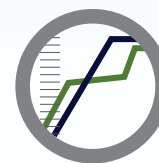
Factory settings

- For example, signal warning systems

Filtering of noise



Diversity of signal processing



Can shorten battery life by 20%.

With and without interface units



Using these features can increase power consumption by as much as 300%. This results in a shortened battery life.

Factors affecting the life of hearing aid batteries (continued)

5 Surroundings



Low humidity

As humidity decreases...

batteries may dry out, shortening their lifespan.

This can occur when:

- hearing aid wearers in northern climates live indoors during winter time
- hearing aid wearers have a fireplace and use it regularly.
- hearing aids are stored in a dry box, in an equally dry environment.
- batteries are in a hearing aid that is not worn frequently.
- the normal lifespan is set at more than seven days.



High humidity

As humidity increases...

batteries can absorb moisture, disrupting the usual discharge process inside the battery. This results in swelling or leaking of the battery, resulting in shortened battery life.

This can occur when:

- hearing aid wearers work for extended periods in environments with high temperatures/high humidity.
- hearing aid wearers live in an environment with high humidity in a home without air conditioning.
- batteries are in a hearing aid that is not worn frequently.
- the normal lifespan is set at more than seven days.



Temperature

A decreasing temperature causes...

the voltage of hearing aid batteries to decrease, causing the functional endpoint to be reached earlier. This results in a shortened lifespan.

This may occur if the hearing aid wearer works in a refrigerated room or outdoors in the winter.



Altitude

When altitude increases...

the oxygen content in the air decreases, reducing the voltage in the hearing aid battery. This results in reaching the functional endpoint earlier and thus a shortened lifespan.

This can occur if:

- hearing aid wearers live in high altitude areas
- flying with an outdated hearing aid battery.

6 Expected lifespan per battery

Battery size	Expected lifespan
10	3-10 days
312	3-12 days
13	6-14 days
675	9-20 days

* Cochlear implants require a special battery and can have a lifespan of only one day.

* Rechargeable hearing aid batteries have an expected lifespan that is approximately 10-15% of the above life span.

In short...

The expected lifespan of a hearing aid battery is different for every hearing aid wearer. There is no one-size-fits-all answer for every situation. The best way to gain insight in expected battery life is to try several battery brands over an extended period of time and compare them.