



VALUEHEARING

Information Booklet

All About

Rechargeable Hearing Aids

*Everything you need to know about using, wearing
and caring for your rechargeable Hearing Aids*

An Introduction

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Rechargeable hearing aids are one of the most useful innovation to have emerged in modern hearing aids.

The benefits are many. Two which our clients frequently mention is the cost saving over time compared to purchasing disposable batteries. The other is convenience - just put your hearing aids on charge overnight and they're ready for a full day's hearing in the morning.

In this booklet, we take a look at the technology behind rechargeable hearing aids and what you can do get the most from your aids.

Keep coming back to this section of the Value Hearing website for fresh and informative articles on topics such as:

- Top tips on how to make the most of your hearing aids
- Easy care and maintenance tips
- How to 'acclimatise' to wearing hearing aids
- Rebuilding personal confidence following hearing loss
- How to talk to your family about your hearing loss
- How to talk to your boss about your hearing loss
- Fun and fascinating fact you didn't know about sound and hearing.

But this is not all about us, this is about you. So, if there are any topics you'd like us to cover, [then drop us a line](#) - we want to hear from you!

The Benefits of Rechargeable Hearing Aids

Rechargeable hearing aids offer a great benefits and great convenience.

There are numerous advantages to rechargeable batteries for hearing aids:

Assurance – You can be sure of having hearing aids 100% ready to go every morning since they're charged overnight when you're not wearing them.

Economical – Although rechargeable hearing aids are more slightly more expensive than battery-powered hearing aids at initial purchase, it doesn't take long for the savings to add up.

You can recoup the cost of your rechargeable hearing aid in as little as twelve months.

Green - One of the problems with disposable batteries is safely disposing of them, they contain heavy metals and a choking hazards for children and animals.

Easy to use - Hearing aid batteries are fiddly at the best of times. But for for users with reduced dexterity, such as arthritis, diabetes, and Parkinson's disease, disposable batteries can become a nightmare. Hearing aids with Lithium-ion batteries built in ng aids are easy to set into their docking port.

Flexibility – Lithium-ion rechargeable hearing aids can source their power wherever you go - the car, the USB port on your computer and more. While hearing aids with the silver-zinc rechargeable batteries can also use disposable batteries as a back-up.

Longevity – Disposable batteries can drain prematurely if not properly sealed. Rechargeable hearing aids are robust and reliable. Docking stations also have built in dehumidifiers to help keep your hearing aids in top working condition.

Did You Know?

The world's oldest 'rechargeable' battery is the lead-acid battery that we all know from our motor vehicles.

This type of battery was invented in 1859 and it is still in use today - but completely impractical for hearing aids!



The History of Rechargeable Hearing Aids

Rechargeable hearing aids, or more accurately, Hearing aids using rechargeable batteries have been around for some time. Siemens were first to release their rechargeable hearing aids at least a decade ago. Later GnResound dipped a toe into these waters, only to discontinue their rechargeable hearing aid options soon after.

These older rechargeable hearing aids worked by replacing the normal battery cell with a rechargeable cell. You could interchange between the rechargeable cell and the normal cell and often you had to during a normal day, especially with the earlier versions.

These older rechargeable hearing aids were fraught with issues:

- The rechargeable battery cells are expensive (\$25 each) and needed replacing a couple of times a year, so could cost more than normal batteries
- The cells might only last 4-8 hours when a few months old, which was a problem if you wore your hearing aids more than that on average

The big innovation came with with the Phonak Audeo B-R range of rechargeable hearing aids which came with a Lithium-Ion battery built into the aid - just like the battery in your mobile phone. And just like the phone, your hearing aids are directly charged from a docking station.



The Lithium-Ion battery is rated for 24 hours continuous use including some audio streaming using Bluetooth accessories (although be aware that constant streaming will drain your hearing aids).

A three (3) hour charge using the included charger gives you a full 24 hours' worth of use. There is also a 30 minute quick charge, which delivers 7 hour of use. Some manufacturers also include a travel battery pack, which we are told gives you seven (7) days of recharging without the need to access a powerpoint.

The Lithium-ion batteries are guaranteed to last four to five years - which is about the length of time you should expect for your hearing aids themselves.

Did You Know?

The first person to use the word 'battery' to refer to the storage of power was Benjamin Franklin in 1749 when he was describing his experiments with electricity and capacitors.

[View our rechargeable hearing aid range and get your quote.](#)

Types of rechargeable batteries

There are two main types of rechargeable hearing aids on the market. Each uses a different battery type for power:

- Lithium-Ion (Li-ion)
- Silver Zinc (Ag-Nz)

Until the development of Lithium-ion batteries, the most efficient way to store power was in silver-zinc batteries. Lithium-ion batteries are exactly the type of battery found in your mobile phone. It is integral into the design. Silver Zinc batteries can be removed from the hearing aid and replaced with conventional hearing aid batteries when needed.

Lithium-Ion:

Pros:

- Can deliver over 24 full hours of charge including about 5 hours of streaming on a single 3 hour charge.
- Quick charging – a quick 30 minute charge gives you 6 hours of use
- Can last all day, not matter how full your day is.
- There is no battery door, so the hearing aid is more moisture resistant than those with battery doors.
- Safe
- A single battery can last 5+ years – so no additional ongoing costs.
- Very low risk of battery ingestion

Cons:

- You either need a power point or a battery pack to ensure you don't end up with a dead hearing aid when travelling.
- The Lithium-Ion battery makes the hearing aid a bit bigger than ones with a standard size 312 or 13 battery.

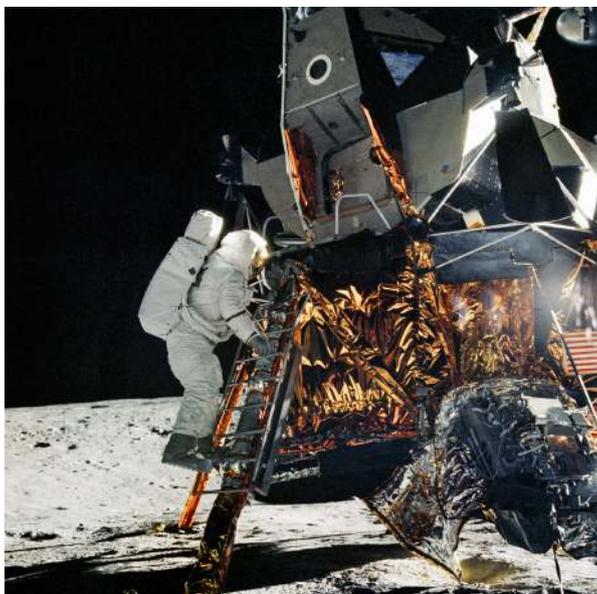
Silver-Zinc:

Pros:

- Fully recyclable
- Safe
- Aid is smaller than Lithium-Ion Counterpart
- Gives up to 12-16 hours use with 5 hours streaming on a 4 hour charge
- Disposable batteries can still be used as back-up

Cons:

- No Quick Charging, so if you forget to charge them, you are out of luck, unless you are willing to wait a while.
- Needs replacing every 6 to 12 months at a cost of about \$100-\$150 per pair
- Water can still get into the battery door
- It appears that you can actually short out the rechargeable cell by accident, costing you \$50 per cell to replace!
- Easy to lose the expensive battery – you'll need to remember to remove it when aid goes in for repair.
- Makes the aid a bit longer than non-rechargeable versions to accommodate charging contacts.
- Risk of battery ingestion still exists as the battery is removable.



Did You Know?

Silver Zinc batteries provided backup power for the Apollo lunar module, rover and life-support backpack for the astronauts.

After the Apollo 13 near-disaster, an auxiliary silver-zinc battery was added to the service module as a backup to the fuel cells.

Discover everything you need to know about hearing aids - absolutely FREE!

- How Can You Tell If You Have Hearing Loss?
- How Do You Know If You Need Hearing Aids?
- Preparing to Buy Hearing Aids
- Choosing A Hearing Care Professional
- Where To Find A Good Audiologist
- What To Ask When Making Your Appointment
- What Makes A Good Audiologist for YOU
- What To Expect From A Hearing Assessment
- What Information Should You Expect
- Types of Hearing Aids & How They Work
- Overview of Hearing Aid Brands in Australia
- What you Should Expect From The Hearing Specialist Recommendations
- Hearing Aid Fitting Appointments
- Getting Used To Wearing Hearing Aids
- Care of your Hearing Aids

HEARING AID BUYERS GUIDE for the Self-Funded Australian

A Practical Guide to Obtaining
the Best outcome and Value for Your Money



Christo Fourie, Clinical Audiologist

Click on the book cover to receive your free Buyer's Guide!

Which Type of Rechargeable Hearing Aid is Right for Me?

So which rechargeable hearing aid is right for you?

It all depends on your lifestyle.

If you travel a lot or enjoy hiking and camping, then the silver-zinc rechargeable hearing aids are likely to be a better option as they can be supplemented with disposable batteries for back-up.

In the past decade or so, there has been some experimentation with rechargeable hearing aids. Most notably Siemens (now Signia) and GN Resound (who later stopped using these batteries). Siemens uses an older nickel-metal-hydride battery, which delivers about 8-10 hours of use per charge.

In 2017, everything started to change in regards to rechargeable hearing aids. A company called ZPower® started gaining traction with their rechargeable Zinc-Air hearing aid battery. Phonak launched their Lithium-Ion rechargeable B-R range of hearing aids. They were quickly followed by Signia with their Lithium-Ion Cellion range of hearing aids.

So, today we essentially have two camps of rechargeable hearing aids. One is based on Lithium-Ion, while the other is based on ZPower's® rechargeable Zinc-Air solution.

Lithium-Ion:

Lithium-Ion batteries are built into the hearing aids and cannot be removed by the user. You simply put the hearing aid in the charger overnight. By doing so you receive 24 hours of use from the rechargeable hearing aid including some use while streaming. These batteries are designed to last at least 2 to 6 years, depending on brand but are replaced when the hearing aids go to the manufacturer for repair or servicing.

Pricing options differ between suppliers. Phonak includes the charger in its pricing, whereas Signia and GN Resound do not. It's important to make sure any quotes include the charger, as the hearing aid won't function without it.

Lithium-Ion hearing aid batteries are controlled by a chip, so you shouldn't have any issues with over-charging or exploding batteries. Due to the small size of the batteries, they are also safe to fly with.

Lithium Ion is [available in three brands](#), Signia, GN Resound and Phonak.

Phonak

Phonak offers the following rechargeable devices, starting at their essential level device:

- Audeo B50-R (Basic Range)
- Audeo B70-R (Advanced Range)
- Audeo B90-R (Premium Range)
- Naida B50-R (Soon to be released)
- Naida B70-R (Soon to be released)
- Naida B90-R (Soon to be released)
- Bolero B50-PR
- Bolero B70-PR
- Bolero B90-PR
- CROS-R
- Audeo M30-R
- Audeo M50-R
- Audeo M70-R
- Audeo M90-R



Phonak's batteries are rated to last 6 years.

Signia

Signia offers a range of models with rechargeable batteries.

The ranges include

- Cellion PX
- Styletto NX (2 year battery life)
- Pure charge & Go NX
- Motion NX



The [NX range is their latest range](#) and offers great sound quality.

The Lithium-Ion rechargeable hearing aids are usually a few hundred dollars more expensive than their non-rechargeable counterparts.

GN Resound

GN Resound is a later entrant to Lithium Ion based rechargeability.

The Quattro 961-R and Quattro 761-R both offer this functionality.

They have a lovely charger case that stored a few charges for when you are off the grid.



ZPower® Silver-Zinc:

ZPower® is a company who have innovated by building a rechargeable silver-zinc battery solution that can be adapted to fit most suppliers' hearing aids. The initial release is focused around size 312 batteries, but work is being done to release a size 13 model soon. ZPower® also shows size 10 and 675 batteries on their website. So, watch this space.

Silver-Zinc

The hearing aid manufacturer that wants to make use of the ZPower® rechargeable option, needs to design a battery door that fits into the ZPower® charger.

The ZPower® rechargeable hearing aid battery then replaces the normal hearing aid battery. A charger is included and the hearing aid user simply docks the hearing aid in the charger overnight. The charger is smart enough to detect if a normal zinc-air battery is in the aid instead of the rechargeable hearing aid battery. It will simply not charge in that event.

There are several manufacturers supporting Z-Power® as it is a very easy and affordable way to turn popular hearing aids into rechargeable versions. Many brands also offer retrofit rechargeable kits for their hearing aids. It consists of a battery door, some rechargeable hearing aid batteries and the charger.

Unitron Rechargeable Hearing Aids:

Unitron was one of the first companies to partner with ZPower® to produce the Moxi Fit-R range of hearing aids. Unitron offers rechargeable hearing aids at all levels of technology. Receiver in canal aids:

- Moxi 500 Fit-R
- Moxi 600 Fit-R
- Moxi 700 Fit-R
- Moxi 800 Fit-R
- Moxi Pro Fit-R

Receiver in canal aids with Bluetooth Direct connectivity:

- Moxi 500 All-R
- Moxi 600 All-R
- Moxi 700 All-R
- Moxi 800 All-R
- Moxi Pro All-R

Behind the ear hearing aids:

- Stride 500 M-R
- Stride 600 M-R
- Stride 700 M-R
- Stride 800 M-R
- Stride Pro M-R

Oticon:

At present, Oticon only offers a rechargeable option in its brand new [OPN MiniRite hearing aids](#).

A retrofit kit is available for the following models:

- OPN1 MiniRITE
- OPN2 MiniRITE
- OPN3 MiniRITE



Please note, the rechargeable kit is not compatible with the OPN Mini-Rite-T nor the OPN 13BTE.

Bernafon

Bernafon, as the Bernafon Zerena is basically an OPN in Bernafon clothing, it also has a rechargeable option.

Starkey:

Starkey has a rechargeable option available in their Muse microRIC range of hearing aids for the following levels of technology:

- Muse i1200
- Muse i1600
- Muse i2000
- Muse i2400



Widex:

Widex is releasing a rechargeable solution in their Beyond Fusion RIC range of hearing aids (which will be known as Widex Beyond Z).

This rechargeable solution will be able to be retro-fitted to any Beyond hearing aid:

- Beyond Z110
- Beyond Z220
- Beyond Z330
- Beyond Z440



Their rechargeable solutions have now been extended to the latest Evoke range of hearing aids.

Did You Know?

The battery as we know it today was developed by the Italian physicist Alessandro Volta in 1800.

With this invention Volta proved that electricity could be generated chemically and debunked the prevalent theory that electricity was something generated solely by living beings.

But there is suggestions that basic batteries using iron, copper in an electrolyte solution [go back as far as 200 BC!](#)

According to archaeologists, the Baghdad Battery may have been used to perform basic electroplating or use for some kind of religious ceremony.



How To Care For Your Rechargeable Batteries

Lithium-Ion Batteries

Keep your hearing aids in the docking station when not in use.

A constant charge will not shorten the battery life, so store your aids in the charging station even if they don't need fully charging.

When charging, make sure the hearing aids are free of debris.

Place the hearing aids in the charging base. The hearing aids will automatically turn off. The indicator light will blink when the hearing aids are charging. The light will stop blinking and stay lit when the hearing aids are fully charged, which takes about 3 to 4 hours.

When taking your hearing aids from the charger, use the case and not the wire that connects to the receiver.

Silver-Zinc Batteries

Keep your hearing aids in the docking station when not in use.

A constant charge will not shorten the battery life, so store your aids in the charging station even if they don't need fully charging.

The instruction for disposable batteries is to open the battery case, this is not the case with silver-zinc batteries. Do not open the battery door when not using your hearing aids.

However, if you're not going to use your hearing aids for more than three hours and you cannot put them in the charging station, remove the batteries and store them in a place where they are not touching each other or other metallic objects.

When charging, make sure the hearing aids are free of debris.

Place the hearing aids in the charging base. The hearing aids will automatically turn off. The indicator light will blink when the hearing aids are charging. The light will stop blinking and stay lit when the hearing aids are fully charged, which takes about 3 to 4 hours.

When taking your hearing aids from the charger, use the case and not the wire that connects to the receiver.

The Future of Batteries

There are remarkable advancements in hearing aid technology being released every year. We're polishing up our crystal ball to look at the future of hearing aids.

Predicting technology trends is not an exact science, but what it does do is allows us to take educated guesses based on past trends and cutting edge research to formulate logical pathways for today's items. When it comes to the future of the hearing aid, we are living in a world of constant change and advancement, making it hard to differentiate the present from the future—essentially, the future of the hearing aid is now.

But to look forward over the next 10, 20 or 30 years isn't difficult to do because some of the technology that the future of the hearing aid will be based upon is already operational or as close to it as we've ever been. [Click here to have a brief look](#) at what you have to look forward to and what you can expect from the hearing aid industry over the next few decades.

Battery technology is changes in leaps and bounds and no doubt that in a few years' time hearing aid batteries might be powered by clear solar panels, by movement or [even just by talking!](#)

Value Hearing is an independent and Australian-owned company.

Qualified and registered clinicians expertly guide you to the best solution for your unique hearing loss.

Value Hearing uses a unique assessment and discovery appointment that finds your ideal hearing solution quickly and accurately.

Your hearing aid is professionally fitted, reviewed and adjusted to give you the best immediate benefit.

Our comprehensive and proactive aftercare service means you'll never forget to have your hearing aids adjusted and optimised over time. Active recalls remind you when it might be time for a check-up.

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