VALLEYHEALTH

Your Guide to Cochlear Implants

Cochlear implants are medical devices that can give a sense of sound to people with severe hearing loss. For many children and adults, they are life-changing.

How Hearing Works — And What an Implant Does

The inner ear has the **cochlea**—a tiny, shell-shaped organ with hair cells.

Sound moves these hair cells, sending signals to the hearing nerve and brain.

When hair cells are damaged, signals weaken and hearing drops.

A **cochlear implant** helps by skipping the damaged hair cells:

- A thin **electrode** is placed inside the cochlea during surgery.
- A small **sound processor** worn on the ear captures sound, converts it to electrical signals, and sends them to the electrode to stimulate the cochlea from low to high pitch.
- Modern systems have many electrode contacts, and programming helps many users understand words again.

Who May Be a Good Candidate

Cochlear implants are not for people who hear well with hearing aids or for those looking for a low-cost alternative to hearing aids.

- If you can **use a phone** and follow speech, your hearing may still be too good for an implant.
- People who do best include with cochlear implants are:
  - **Adults who once heard well** but lost hearing later. Their brains already know sound patterns.
  - **Young children** implanted around **1–2 years old.** Their brains are still developing pathways for speech and sound.
- People who have **never heard sound** may get less benefit because the brain has not built those pathways.

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Getting Evaluated

- Begin with a **hearing test** to measure how loud sounds must be before you can hear them.
- You will also have a **speech understanding test** while wearing your **best hearing aids.**
  - Understanding **over 50%** of words often means you are not a candidate yet.
  - Understanding **under 50%** may mean you would do better with an implant than with hearing aids.
- An ear, nose, and throat (ENT) specialist and an audiologist will guide the next steps.

Results, Coverage, & Next Steps

- Many users learn to **understand speech** and enjoy daily sounds again.
- Children who receive a cochlear implant early often develop **clear speech and language.**
- Results vary. Follow-up visits, device programming and listening practice improve outcomes.
- Most **private insurance, Medicare** and **Medicaid** cover cochlear implants when medical criteria are met.

Getting Started

- If you struggle to understand speech even with good hearing aids, talk with your **primary care provider** or **ENT** about a cochlear implant evaluation.
- Bring your current hearing aids to appointments so testing reflects your best possible aided hearing.
- Ask about timelines for surgery, activation and follow-up programming, plus support for hearing practice at home.

With the right evaluation, surgery and follow-up programming, a cochlear implant can help many people reconnect with voices and everyday sounds.

To learn more or find care, visit valleyhealth.org.