

MYTHS AND FACTS

Myth: Cochlear Implants are expensive

The NHS fully funds adults and children who qualify medically for a cochlear implant. See [NICE guidance for cochlear implants](#).

Myth: Cochlear Implant placement involves major surgery

The surgery often doesn't require an overnight stay. Most ear, nose and throat (ENT) surgeons regard it as a routine operation.

Myth: Cochlear Implantation involves brain surgery

Not at all. The surgeon places the internal implant under the skin behind the ear and inserts an electrode into the cochlea, the spiral-shaped part of the inner ear. The surgeon doesn't go anywhere near the cranial cavity, where the brain is held.

Myth: A Cochlear Implant will destroy your residual hearing

Some residual hearing may be lost but this is becoming less likely as surgical implant techniques and electrode designs continue to improve. The softer and more flexible the electrode, the less likely it is to damage the delicate structures of your inner ear. Rates of preserving the remaining hearing of a person are considerably higher today than they were ten years ago. This is due to better surgical techniques and improved electrode designs.

Myth: There is no problem with waiting until a child can make up their own mind whether to get Cochlear Implants

Unfortunately this isn't the case. During the first few years of life, the brain's capacity to learn to hear is at its peak. The baby's cochlea is fully formed before birth and doesn't grow afterwards, which is why it's possible to implant babies from six months of age. However, if the brain's auditory pathways (hearing part) are not stimulated, after about three and a half years, a person's capacity to learn to hear and speak diminishes because that part of the brain is partially given over to other functions. A child needs to be able to hear in order to learn to speak and pronounce words correctly. If they can't hear themselves, they will not be able to develop normal speech. This doesn't mean that some benefit can't be gained from cochlear implantations carried out later, but the results will not be as good as with an early implantation.

Most children who are fitted with cochlear implants at an early age don't display any significant differences in their hearing and speaking abilities from children without hearing problems. [1] Research shows that children with cochlear implants perform better at school, are more likely to attend mainstream schools and have better career prospects than their peers with similar degrees of hearing loss who don't have implants. [2]

An added benefit of early implantation is that speech and language development can also follow a fairly natural pattern.

Myth: Hearing with a Cochlear Implant is not like normal hearing

Children who receive implants in both ears at an early age have the potential to develop speech to the same level as non-hearing-impaired children.

Adults who receive a cochlear implant after losing their hearing tend to report that speech sounds mechanical and high-pitched initially but after rehabilitation, sounds normal again. This is because the brain has adapted to the new sound. However, results vary between individuals.

It's also important to note that the sooner the hearing loss is addressed in adults, the better the chances for a good hearing outcome. [3]

Myth: A Cochlear Implant becomes outdated and will need to be replaced often

A cochlear implant is made up of two parts – an internal implant and an external audio processor. The internal implant will last for many years, possibly for life, whereas the audio processor will be changed after a few years. However, most audio processors are specially designed to be 'backwards compatible', which means they can be used with implants from previous generations of technology.

Myth: People with Cochlear Implants can't go swimming

Swimming won't damage the internal implant so if your audio processor isn't waterproof, you can simply take it off before swimming. However, many audio processors now have waterproof accessories, which mean you can swim and shower wearing them. Scuba diving with an audio processor isn't recommended because of the increased water pressure at certain depths. Check with the manufacturer to what depth it is safe to dive with the internal implant.

Myth: People with Cochlear Implants cannot understand speech without reading lips

Most cochlear implant users don't necessarily depend on lip reading, though some who relied on it before their operation may still use it in certain situations. Many recipients use the telephone, enjoy music or even play an instrument.

Myth: I'm too old for a Cochlear Implant

There's no upper age limit. As long as you're fit and healthy enough to undergo implant surgery and handle the device, you can have an implant. There are many users who received their cochlear implant in their eighties or nineties. The oldest person in Europe to have a cochlear implant fitted was Mollie Smith from Warwickshire in 2014, aged 99.

Myth: Cochlear Implant users must stay away from WIFI devices

WIFI devices won't interfere with your cochlear implants. In fact some modern cochlear implant processors use a form of WIFI to communicate with other devices.

Myth: You can't play active sports if you have Cochlear Implants

It's perfectly safe to play active sports with cochlear implants, though it's important to wear suitable headgear in order to protect the audio processors (you don't have to remove them).

Myth: There's a big risk of facial paralysis

The risk of temporary facial paralysis is now tiny – only 0.2%, according to a large UK audit on implantation in children, published in 2013. It used to be higher in the past as the surgery involves passing the electrode close to a main facial nerve. However, surgical techniques nowadays use a monitoring device, which is why the risk is now so low. In the same audit, there was no permanent facial paralysis. In fact, even the risk of major complications was found to be low, at 1.6%. [4] Your surgeon can explain the risks in more detail.

Myth: You can't have an MRI scan with a hearing implant

If your cochlear implant is MRI compatible, you can have an MRI scan. Some are compatible up to 1.5 teslas and others up to 3.0 teslas, the latest technology that allows for really detailed images. If an MRI scan is necessary and your device isn't sufficiently compatible, you would need to have the magnet in your implant surgically removed before the scan. The same magnet would then be placed inside the implant again.

Myth: Cochlear Implants have wires coming out of the skin

No, the electrical signals are transmitted through intact skin from the audio processor to the internal implant.

Reference:

1. Special Report No. 1: Basic Information on Hearing, MED-EL: Innsbruck.
2. Bond M, Mealing S, Anderson R, Elston J, Weiner G, Taylor RS, et al. 2009. The effectiveness and cost-effectiveness of cochlear implants for severe to profound deafness in children and adults: a systematic review and economic model. *Health Technol Assess* 13(44):1-330.
3. Arlinger S, 2003. Negative consequences of uncorrected hearing loss – a review. *International Journal of Audiology*; 42 Suppl 2:2:17-20.
4. Broomfield, S. (April 2013) Results of the National Paediatric Bilateral Cochlear Implant Surgical Audit, University Hospitals Bristol.