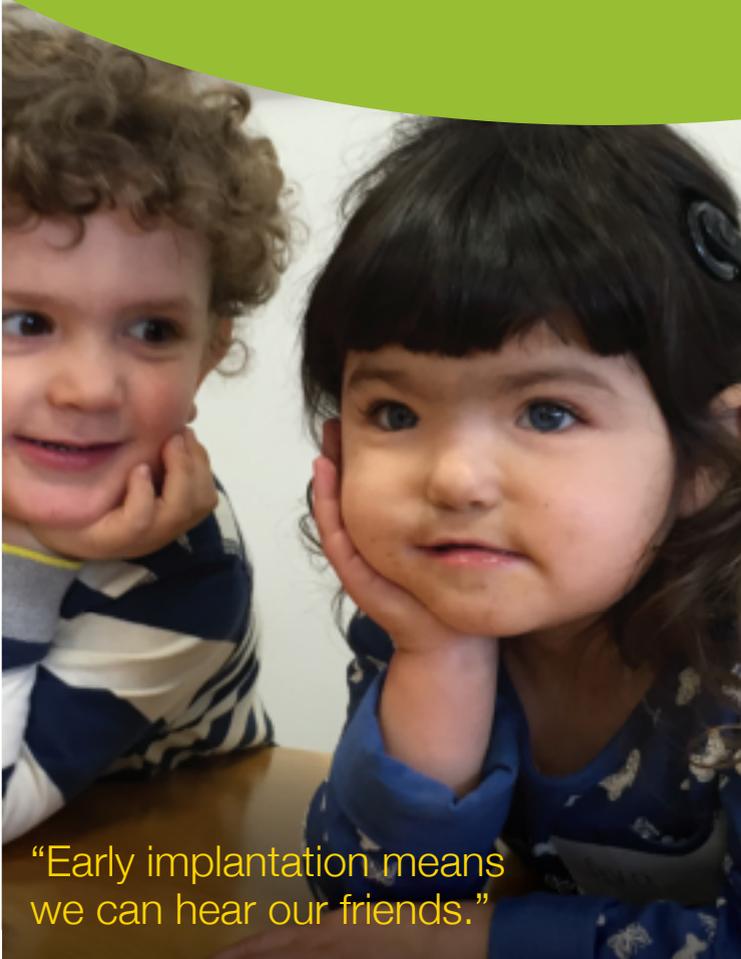


The Ear Foundation®

Cochlear implants

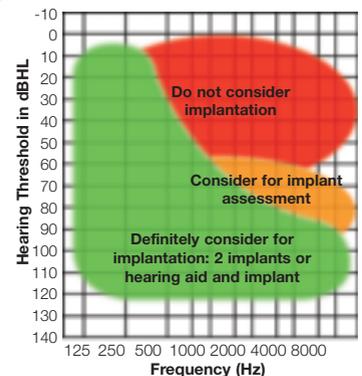


“Early implantation means we can hear our friends.”

Did you know?

- There are about **600,000** implant users in the world
- There are about **14,000** implant users in the UK, and about **700** adults and **550** children are implanted each year (www.bcig.org.uk)
- Only about **5%** of those adults who might be able to benefit from an implant are currently getting one
- Cochlear implantation is safe, and reliable with low levels of complications, including in infants
- Cochlear implantation is cost effective, both for adults, including those over **70**, and for children
- The earlier children are implanted, the better the outcomes
- Implantation soon after onset of deafness is more effective in older children and adults
- Those who are born deaf or have been deafened early in life and implanted as adults can also benefit

So...what if hearing aids are not enough...



When hearing aids do not provide enough hearing . . . think about a cochlear implant.

Don't delay: ensure that a referral is made as soon as possible, so that a full assessment can begin.

There is lots of information available – see list of resources.

Talk to others!

Remember: Hearing loss in children is linked to delayed communication and language development, to poorer educational attainments and later employment prospects.

Hearing loss in adulthood is linked to isolation, depression, dementia and unemployment.

Evidence tells us...

That cochlear implantation enables most deaf children to:

- acquire and understand spoken language, speak intelligibly and use the telephone.
- have improved literacy and educational attainments.
- attend mainstream schools.

That born deaf adults:

- can benefit and change their communication choices.

That deafened adults can:

- gain confidence in communication
- regain independence in everyday life
- improve speech intelligibility
- use the telephone.



Cochlear™



The Ear Foundation

What is a Cochlear Implant?

Cochlear implants provide useful hearing to adults and children who get little or no benefit from a hearing aid. They consist of:

The internal part:

The receiver, surgically implanted in the mastoid bone behind the ear, with electrodes inserted into the inner ear, (cochlea).



The external part:

The microphone and speech processor convert sound into an electrical signal which is sent to the electrodes in the inner ear. These then send the signal through the auditory nerve to the brain, where it is perceived as sound.



“We need to be kept up to date with what is available”

What if you already have an implant?

Technology is being updated regularly – processors, and more and more accessories are available to help you in noisy situations, listen to music or to swim for example. You may wish to think about trying accessories such as an FM system which can help in groups and in noise. See the Sound Advice service at The Ear Foundation.

Special cases:

Children with complex needs

Many deaf children have needs in addition to their deafness; visual, physical, cognitive, language learning difficulty. These children are now fully considered for cochlear implantation, but the assessment process may be more prolonged.

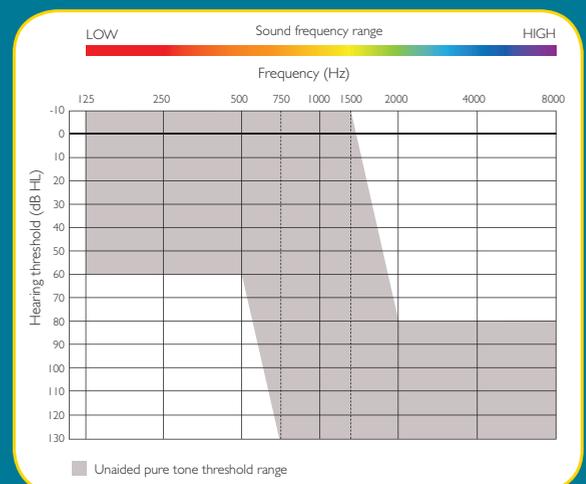
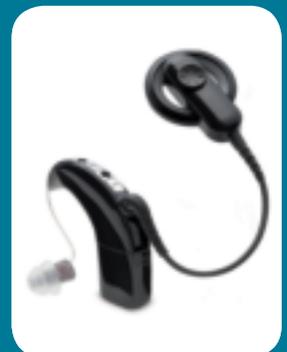
Those with hearing only in one ear

We know that deafness in one ear can cause difficulties, particularly in noisy situations, such as the classroom, a busy office or shop. Cochlear implantation is increasingly being considered for those with single-sided deafness.

Those with useful low frequency hearing?

In the past those with low frequency hearing were often not considered for implantation as the risk of losing this hearing was too great.

Now, more and more are considering devices with use both electrical and acoustic stimulation thus providing high frequency information and preserving the low frequency hearing through a combination of hearing aid and cochlear implant technologies.



The cochlear implant pathway

Stage of the journey

Diagnosis

Referral

Assessments

Shared decision

Surgery

Initial fitting

Learning to use the new hearing provided by the implant

Life-long support & maintenance

Issues to consider

- Information about services available should include cochlear implantation

- Hearing aids fitted • Prompt referral after diagnosis
- Middle-ear problems considered • Funding issues addressed.

- Multi-disciplinary assessments necessary
- Include discussion of expectations: meet other parents/children/adults
- Information on assessments shared with adult/ parent/child.

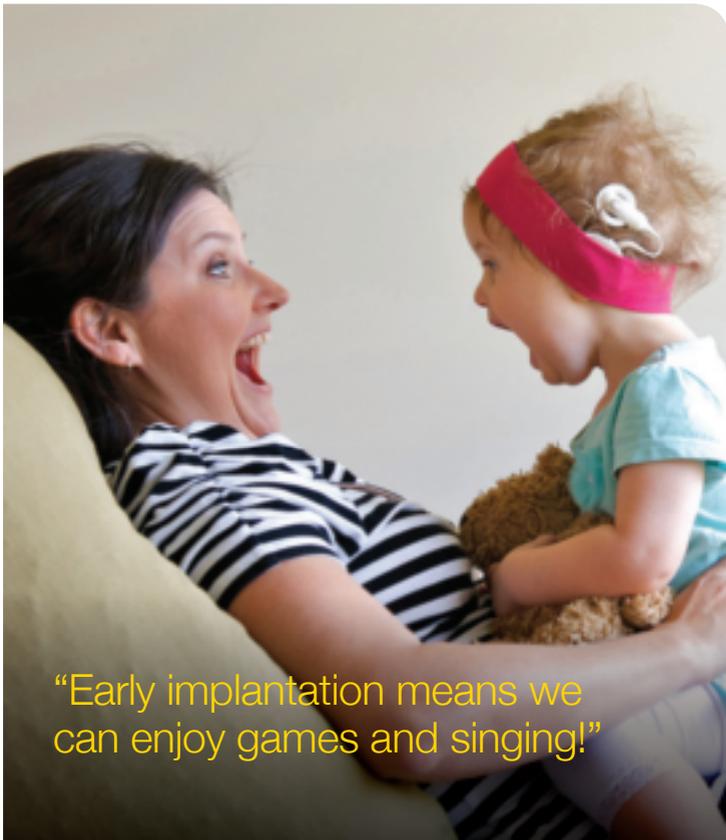
- Adult/parent/child and cochlear implant team make decision, sharing, information available
- Choice of ear/hearing aid and implant/bilateral implants.

- With experienced surgeon and theatre team
- Informed and experienced nursing staff • Latest technology and techniques available
- For children, paediatric specialist care.

- With latest technology and techniques available
- Hearing aid use considered • Initial adjustment to new sound.

- Being persistent!
- Learning from other users and families
- Access to appropriate rehabilitation and support.

- Support needed for children in school and transitions in education • Access to rehabilitation for both children and adults • Access to user and family groups • Ongoing trouble-shooting skills needed • Availability of spares – parts and processors • Monitoring of progress – changing needs over time • Technology available as appropriate: all speech processor functions, FM systems, accessories, upgrades • Monitoring of functioning- re-implant if necessary.



“Early implantation means we can enjoy games and singing!”

Two ears: better than one?

Two ears enable us to listen more effectively in noise and to localise where sounds are coming from.

This is important for understanding conversation in everyday life. We can provide two hearing aids, hearing aid plus implant, or two implants . . . we know that:

- bilateral implantation is routine for children from an early age in most European countries
- early bilateral implantation improves communication and language development
- those with some residual hearing benefit from a hearing aid and an implant
- simultaneous bilateral implantation is most effective early in life, or soon after hearing loss
- having a second implant can be effective, especially when a short time between the two surgeries.





“Now I can enjoy music again...”

Where to go?

If as a parent, adult or a professional, you think a referral should be made for cochlear implant assessment, don't delay. There is a lot of information available, and experienced cochlear implant centres throughout the world.

The names and contact details of cochlear implant centres in the UK can be found at www.bcig.org.uk

Each centre will have its own specialist team and information about its services.

Look at www.cochlear.com to help you find your nearest cochlear implant clinic in other European countries.



Benchmarking practice and outcomes – how and when?

Cochlear Implant centres should provide a minimum data set in order that practice is monitored and progress by individuals or groups benchmarked over time.

Some implant centres provide progress reports, showing for example:

- Numbers implanted, by age, complexity and devices used
- Explants and reasons: re-implantations and reasons
- Surgical complications, infection and failure rates
- Numbers wearing implant systems, by year after implant
- Indications of progress over time – measures of speech perception and production.

Quality Services

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For further information:

Useful Guidelines and Quality Standards are available from British Cochlear Implant Group and National Deaf Children's Society. Useful information about cochlear implants available from:

Action on Hearing Loss
www.actiononhearingloss.org.uk

British Association of Teachers of the Deaf
www.batod.org.uk

The British Cochlear Implant Group
www.bcig.org.uk

Cochlear Implanted Children's Support Group
www.cicsgroup.org.uk

European Cochlear Implant Users' Group
www.eurociui.org

Hearing Link
www.hearinglink.org

National Cochlear Implant Users Association
www.nciua.org.uk

National Deaf Children's Society
www.ndcs.org.uk

NICE guidance
www.nice.org.uk

For information on hearing loss in several languages:
www.hear-it.org

www.earfoundation.org.uk