



## What is hearing impairment

Hearing impairment, is a partial or total inability to hear. This can affect one or both ears. There are an estimated 23,000 children aged 0-15 in the UK who are hearing impaired. It is estimated that 1 in 1000 children are born with profound hearing impairment, with 90% being born to hearing parents.

### There are two types of hearing impairment:

**Conductive** when sounds are unable to pass from your outer ear to your inner ear, often because of a blockage such as earwax, glue ear or a build-up of fluid from an ear infection, or because of a perforated ear drum or disorder of the hearing bones.

**Sensorineural** caused by damage to the sensitive hair cells inside the inner ear or damage to the auditory nerve. Sensorineural hearing loss not only changes our ability to hear quiet sounds, but it also reduces the quality of the sound that is heard, meaning that individuals with this type of hearing loss will often struggle to understand speech. Once the cochlea hair cells become damaged, they will remain damaged for the rest of a person's life. Therefore, sensorineural hearing loss is irreversible

## Causes of hearing problems

The causes differ depending on the type of hearing impairment

### Conductive:

Wax	A build-up of wax in the outer ear may stop sound from reaching the ear drum.
Perforation (hole in the eardrum)	A hole in the ear drum may be caused by several things including trauma, pressure, ear surgery and infection.
Glue ear	When the middle ear filling with fluid, which stopping the passing of sounds. By stopping the ossicles and ear drum from moving.
Inherited	May be caused by a syndrome or other genetic reasons.
Problems with the ossicles bone	Stopping the chain of small bones in the middle ear prevents sound from passing easily through to the inner ear.
Trauma (bang on the head)	May disrupt the small bones in the middle ear that transmit sound.
Ear surgery	May damage the ear drum or small bones in the middle ear stopping sound from passing easily through to the inner ear.

## Sensorineural:

Genetic predisposition	Can be attributed to many different syndromes or other genetics.
Complications during Birth	
Meniere's disease	Episodes of a build-up of excess fluid in one part of the inner ear cause pressure that affects.
Benign tumour	Compresses the hearing nerve, typically affecting one ear.
Inner ear Infection	Viral or bacterial infection can be sudden onset and differing severity.
Bang on the head (trauma)	Fracture of skull can cause damage to the cochlea or the hearing nerve.
Ear surgery	A risk of ear surgery is could cause trauma to the inner ear by surgical instruments.
Infectious diseases	Measles, Mumps and Meningitis can cause permanent damage to the cochlea.

## Awareness of poetical problem:

- difficulty following instructions through not hearing all the words clearly.
- tiredness – the effort of having to listen carefully can lead to poor concentration and frustration.
- difficulty with social interaction, especially in noisy environments.

## Impact on Learning:

Possible impact of hearing impairment on learning;

- Auditory processing – miss instruction

- Slower speech & language development
- Tired having to concentrate harder
- Communication difficulties often lead to social isolation and poor self-concept

## What can help communication:

- Hearing Aids
- Cochlear implants for sensorineural hearing loss
- British Sign Language
- Makaton



## Teaching:

### Three principal of inclusion in the National Curriculum

1. Setting suitable leaning challenges
2. Responding to pupils diverse learning needs
3. Overcoming potential barriers to learning and assessment for individuals and groups of pupils

## How to make your Teaching & Classroom inclusive

- Wearing a synced microphone to cochlear implant
- Have an agree signal to check cochlear link is working
- Back up everything with visual cues
- Play Listening games in a quite environment
- Communicate in British Sign Language or Makataan

- Clear class rules, speak one at a time
- Reduce background noise – carpets, wall hanging, curtains, rubber bottoms on chairs & tables
- Communication with parents

## Hearing impairment specialist organisations

**National Deaf Children's Society** - Support and information for families of deaf children.

**Action on Hearing Loss** - Largest UK charity supporting people with hearing loss and tinnitus.

**British Deaf Association**

**DeafBlind UK**

**Deaf Sign** - Resource for issues related to deafness and sign language.

**HearFirst** - Disability and deaf awareness training.

## Resources:

<http://www.disability.co.uk/sites/default/files/resources/UKStatistics%26Facts.pdf>

<https://www.actiononhearingloss.org.uk/your-hearing/about-deafness-and-hearing-loss/definitions-of-deafness.aspx>

<https://www.hearinglink.org/>

<http://www.asha.org/public/hearing/Effects-of-Hearing-Loss-on-Development/>

<http://www.medel.com/blog/tips-teachers-students-cochlear-implants/>