

# Hearing Impairment

Sarthak Educational Trust



# Hearing Impairment – An Overview



- Hearing loss, also known as hearing impairment, is a partial or total inability to hear.
- A deaf person has little to no hearing.
- It may occur in one or both ears.
- In children, they have difficulty in processing linguistic information which can affect the ability to learn spoken language and adversely affect their educational performance and in adults it can create difficulties with social interaction.

# Types of Hearing Impairment

Hearing impairment occurs when there's a problem with damage to one or more parts of the ear.

- **Conductive hearing loss** results from a problem with the outer or middle ear, including the ear canal, eardrum, or ossicles. A blockage or other structural problem interferes with how sound gets conducted through the ear, making sounds seem quieter. In many cases, conductive hearing loss can be corrected with medications or surgery.
- **Sensorineural hearing loss** results from damage to the inner ear (cochlea) or the auditory nerve. The most common type is caused by the outer hair cells not functioning correctly. The person has trouble hearing clearly, understanding speech, and interpreting various sounds. This type of hearing loss is permanent. In many cases, hearing aids can help the person hear normally.
- **Mixed hearing loss** happens when someone has both conductive and sensori-neural hearing problems.

# Symptoms of Hearing Loss

- ✓ Muffled hearing or misunderstanding people
- ✓ Asking for repetition
- ✓ Tinnitus(Ringing sensation in the ear)
- ✓ Difficulty attending
- ✓ Difficulty understanding speech in noise
- ✓ Turning the volume up on the television/music
- ✓ Thinking others "mumble,"
- ✓ Difficulty understanding speech on the telephone
- ✓ Difficulty understanding speech, particularly of women and children
- ✓ rhyming mistakes-for example, hearing the high-pitched sound /t/ in the word *tin* as /f/ in the word *fin*.
- ✓ not participating in activities/isolating one's self,
- ✓ speaking too loudly or too softly.

# Symptoms of Hearing Loss – In School Children

Signs and symptoms in school-age children also include:

- ✓ poor academic performance,
- ✓ delayed language and speech production development,
- ✓ behavioral concerns,
- ✓ auditory processing problems.

Not all patients will experience each symptom.



# Causes of Hearing Loss

**Congenital Hearing loss** - It includes hereditary hearing loss or hearing loss due to other factors present either in utero (prenatal) or at the time of birth.

Other causes of congenital hearing loss that are not hereditary in nature include

- Prenatal infections
- Illnesses
- Toxins consumed by the mother during pregnancy or other conditions occurring at the time of birth or shortly thereafter

**Sensory Neural Hearing Loss** – It includes reasons such as Intrauterine infections including

- Rubella (German measles), cytomegalovirus, and herpes simplex virus
- Complications associated with the Rh factor in the blood
- Prematurity
- Maternal diabetes
- Toxemia during pregnancy
- Lack of oxygen (anoxia)

# Causes of Hearing Loss

Acquired Hearing loss – It appears after birth, at any time in one's life, perhaps as a result of a disease, a condition, or an injury. The following are examples of conditions that can cause acquired hearing loss in children are:

- Ear infections (otitis media)
- Ototoxic medications (such as kanamycin streptomycin which damaging to the auditory system)
- Meningitis
- Measles
- Encephalitis
- Chicken pox
- Influenza
- Mumps
- Traumatic Head injury
- Loud exposure to noise

# Degree & Ranges of Hearing Impairment

## Degrees of Hearing Loss



# Early Intervention Activities – Speech Therapy

Auditory training- Process of teaching the hearing impaired child/adult to take full advantage of available auditory cues (Residual Hearing). Steps in auditory training:

- Awareness
- Discrimination
- Identification
- Comprehension

Stimuli used-

- **Verbal sounds** - Learning six sound- |a|,|i|,|u|,|m|,|s|,|sh| & Learning to listen sounds(LTLs) - Cat: meo-meo, Cow: moo, Car: Beep beep, Telephone: tring-tring etc.
- **Non-Verbal Sounds** - Drum, manjeera, daphli, steel bell etc.
- Speech and language therapy includes Correct placement of articulators/ Building Expressive and receptive vocabulary/ Phrase formation/ Sentence formation(simple)

# Early Intervention Activities – Special Education

- People with hearing impairment or hard of hearing often use vision as a primary means of receiving information. Captioned videos, diagrams, and other visual aids are useful instructional tools for students with hearing impairments.
- Teach hearing impaired child and building concepts of basic colors, vegetable, fruits, transport chart, board, worksheet & stationary items.

Teaching strategies for Hearing Impaired child:

- Avoid Lip-reading and sign language.
- Use more than one way to demonstrate or explain information.
- Break tasks and activities down into short, clear and concise steps
- maintain eye contact with the student also.
- Use of Visual Aids, Videos and Pictures for better understanding.
- Use key notices

# Early Intervention Activities – Home Based

- Make your child aware of ringing phone, knocking door, door bell, horn of various vehicles and all kind of environmental sounds.
- Use real objects (common fruits) that child has to bring or point them when asked. Got to park and count children playing their, introduce new word every day, Emphasize the word or repeat when child sees or point any objects.
- Use Flashy cards, coloring book, real objects, picture book, calendar (date-months)
- Count and write activities.



THANK  
YOU