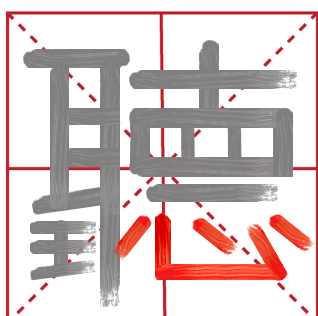
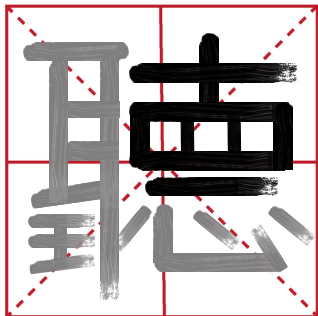




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Hearing

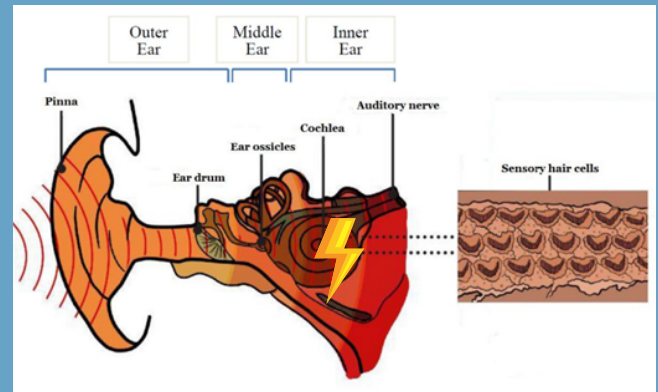


Personalized electronic activities for entertainment are more common due to the development of technology and the outbreak of COVID-19. A recent study reported that data of streaming media has been increased at least 50%. In addition, earphones have become the necessity of 'independent personal space', greatly raising the risk of Noise-induced hearing loss.

'The World Report on Hearing' (by WHO) has been developed in 2021. It forecasted nearly 1 in every 4 people is expected to have some degree of hearing loss, and 1 in 14 will require hearing care by 2050.

Permanent hearing loss

Sudden blasts of noise or exposure to loud noise will damage the sensory hair cells in the inner ear and cause noise-induced hearing impairment. Due to the fact that sensory hair cells will not regenerate, once damaged, permanent hearing loss occurs.



Three main factors determine the impact of noise on hearing

- Intensity (loudness)
- Duration (length of time)
- Frequency of exposure (how often)



Intensities (dB) of some common sounds

Normal conversation	60
Vacuum cleaner	80
Motorcycle (average)	100
Ambulance siren	120
Firecracker	150

Daily time limit for exposure

Unlikely to cause impairment	8 hours
15 minutes	Dangerous
Reaching the threshold of pain	

Long / Repeated exposure (at or above 85 dB) can cause hearing impairment

Disadvantages/possible consequences of hearing impairment

In general

- Mental health
- Quality of life
- Language development
- Ability to learn new things

For children

- Academic
- Language skills
- Social
- Behavioral



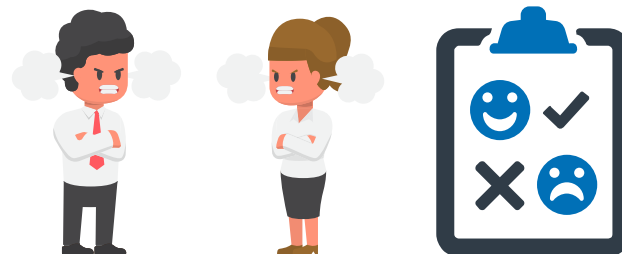
Checklist of Hearing Loss

In general

- Ringing in the ears / Have earache or ear discharge
- Delayed response to soft sounds
- Show poor understanding of what other people are saying
- Turn head to one side constantly while listening
- Tend to lean forward or pay extra attention to the speaker's face while listening
- Often complain that other people are not speaking clearly
- Show difficulty locating the sound source
- Often request for repetition by saying 'Pardon?' or 'Say that again' during a conversation
- Have unclear speech
- Often give irrelevant answers or misinterpret instructions
- Understand speech much poorer than others in a noisy environment
- Confuse words with similar sounds e.g. 'sin' and 'tin'

For child student

- Cannot respond immediately to verbal instructions during group activities.
- Can respond only after watching peers' responses
- Rely on the notes and explanations from classmate to understand what the teacher has taught
- Always miss the letter "s" in English dictation
- Has poorer performance in subjects which demand listening
- Poor oral expression and comprehension skills compared with students of the same age
- Prefer staying alone and not willing to participate in group activities



'60-60 Rule'



Adjust the volume of earphones to no more than **60%** of maximum

+

Limit the usage time less than **60** minutes per day



Practicable actions

- Increase the frequency of breaks
- Use the built-in function to restrict the maximum output volume
- Deep-in-the-ear earphones produce louder sound at the same volume setting, hence, the volume should be lower when playing powerful music.
- Block out noise by wearing appropriate hearing protection devices (such as earplugs and earmuffs), even for short exposures

Noise-induced hearing loss is preventable if we persist in safe listening habits. Permanent hearing loss sparks off a chain of disadvantages and loses the chance to hear beautiful sounds. Protecting hearing health by adopting the '**60-60 Rule**'!

References :

WHO;
CHP, HKSARG;
PSA Charitable Foundation

The above information
is for reference only.

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