Hearing Health Information

The World Health Organization estimates that 1 out of 2 young people are at risk of hearing loss due to unsafe listening habits.

- Exposure to loud sounds (e.g. music or noise) causes fatigue of the sensory cells of the ear. This results in temporary hearing loss or tinnitus (a ringing sensation in the ear).
- However, when the exposure to sound is particularly loud, regular or prolonged, it can permanently damage the ear's sensory cells and other structures, resulting in **irreversible** recreational noiseinduced hearing loss. The high-frequency range (i.e. high-pitched sounds) is impacted first and may not be noticeable immediately.
- Continued exposure to loud sounds leads to the progression of hearing loss, ultimately affecting speech comprehension, perception of meaningful environmental sounds and quality of life.
- Since hearing loss tends to disrupt interpersonal communication, some individuals experience significant levels of distress as a result of their hearing difficulties.
- Exposure to loud sounds in young people also contributes to agerelated hearing loss.
- Hearing loss can affect many aspects of life, including a person's social and educational development, as well as the ability to work.
- Some people may be more susceptible to hearing loss than others. Genetic predisposition, chronic conditions such as diabetes are known to increase the risk of acquiring noise-induced hearing loss. Since we cannot tell who the most susceptible individuals are, prevention is the most effective way to avoid hearing loss.

A way to avoid acquiring recreational noise-induced hearing loss is by adopting safe listening habits. Safe listening depends on the intensity (loudness measured in decibels), duration (length of time) and frequency (how often) of the exposure. These three factors are interrelated and contribute to the overall sound dose that one's ears are exposed to.

The louder the sound is, the less time you can safely listen to it. When using your personal listening device, sound levels of 80 dB are considered safe for 40 hours per week. The permissible time for safe listening decreases as sound levels increase (see example below).

dB(A) SPL	Weekly (1.6 Pa ² h)	
107	4.5 minutes	
104	9.5 minutes	
101	37.5 minutes	
98	75 minutes	
95	2.5 hours	
92	5 hours	
89	10 hours	
86	20 hours	
83	20 hours	
80	40 hours	

Rocket launch —	180		
	170		
Shotgun blast —	160		
Firecracker —	150		
Rifle blast — Jet engine	140		
Jackhammer —	130		
Ambulance siren	120	— Marching Band — Drumline rehearsal	
Chain saw/letski —	110	 Blues bar/Rock concert 	
Loud sporting event —		- Concert band	
Snowmobile —	100	 Symphony orchestra 	
Motorcycle/Subway		Orchestra pit	
Power mower —	90		
Loud traffic	Loud		
Noisy restaurant	80		
Vacuum cleaner — Washing machine	70		
Normal conversation —	60		
		Intensities o	
	Quiet	different	
Quiet office 🗕		environment sounds to he	
	30	decibels bett	
Whisper —	Faint		
	20		
Leaves rustling —	10		
Decibel Level			

Intensities of different nvironmental ounds to help ou understand ecibels better.

Safe listening tips to prevent recreational noise-induced hearing loss:

Tip 1: Lower the volume (keep in mind the table above).

Tip 2: Limit your listening time, as it would lower the overall sound dose your ears are exposed to.

Tip 3: Monitor your listening habits.

Tip 4: Use carefully fitted noise-cancelling earphones/headphones to allow music to be heard at lower sound levels.

Tip 5: Hearing screening can help to identify the onset of hearing loss at an early stage.