

Hearing Protection – Why we should care

Noise exposure in daily life – a growing challenge:

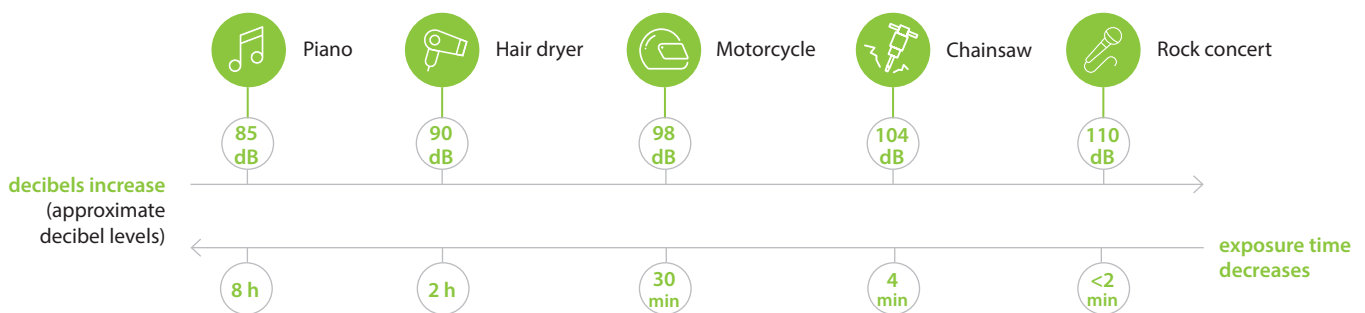


- Noise is an important public health issue. It has negative impacts on human health and well-being.¹
- Noise exposure is growing constantly both in leisure and work-related settings.¹

Top 10 noisiest jobs²

- | | |
|------------------------|------------------------------|
| 1 Airport ground staff | 6 Factory + farm worker |
| 2 Formula 1 driver | 7 Commuter music |
| 3 Construction worker | 8 Classical musician |
| 4 Nightclub worker | 9 Motorcycle courier |
| 5 Rock star | 10 Nursery worker or teacher |

Noise exposure above a certain threshold is expected to cause hearing damage³:



- ▶ **The importance of hearing protection is often underestimated:** from a level of 85 dB, in combination with an extended exposure time, noise can result in temporary or permanent deterioration of the inner hair cells.⁴
- ▶ **Different standards and guidelines per region regulate the daily noise exposure limits:**
 - European directive 2003/10/EC: daily noise exposure limit value $LA_{EX,8h} = 87$ dB
 - Occupational Safety and Health Administration (OSHA) standards: 85 dBA measured as 8-hour TWA (time weighted average)



Good hearing protection should...

- Cancel noise and loud sound
- Keep relevant sound and speech
- Let the ear breathe

Custom earplugs come in the following activity-based models:

- SleepTight
- InFlight
- Focus
- Music
- Active
- Swim
- Drive
- Hunting



When recommending hearing protection, it is important to consider the level of noise and the length of the exposure time. A hearing care professional can advise on the most appropriate type of hearing protection device.



References:

- ¹ World Health Organization. Environmental Noise Guidelines for the European Region. Retrieved from https://www.euro.who.int/__data/assets/pdf_file/0009/383922/noise-guidelines-exec-sum-eng.pdf
- ² Acoustical Surfaces. Top 10 noisiest job. Retrieved from <https://www.acousticalsurfaces.com/blog/acoustics-education/top-10-noisiest-jobs/>
- ³ Lawand, N., Lodder, J. (2021). Phonak Insight: Noise: Why should we care about it?, available at <http://www.phonak.com/evidence>
- ⁴ Centers for Disease Control and Prevention (2020, January 6). Vital Signs – Too loud! For too long! Retrieved from <https://www.cdc.gov/vitalsigns/hearingloss/index.html>