

## Solutions for sensitive hearing

If you are overresponsive to sounds, there are many situations in which this is bothersome. For example at parties, on the street, in shops, at work or in the classroom. Or on a crowded train platform, with an announcer, moving trains and the conductor's whistle. When you register sounds that are badly filtered or unfiltered, your brain has to process so much sound that it will sometimes 'sound the alarm'. At that point the brain's interpretation is that the input is harmful to the body. This is accompanied by the necessary adrenaline and stress. A mechanism of the body to ensure that you can fight against or flee from danger. Only.... there usually is no danger for you, when an ambulance with sirens passes you by or when a chair next to you scrapes on the floor with an annoying sound. The brain has allowed the input to pass unfiltered; the filter for sound input does not work well enough. You can protect yourself against that. Some tips:

## Adjustments in the environment

• By using rugs in noisy areas, you can muffle sounds of people passing by;

• make a reversable sign for the door, with 'welcome' on one side and 'do not disturb' on the other, to make it clear when you really don't want people walking in;

• when chairs make scraping noises and there is someone who is very much bothered by this, tennis balls can be a solution. Cut a cross-shaped opening and put them on the end of the legs.



## Hearing protection and music devices

There are many different hearing protectors on the market. Hearing protection in the form of:

- hearing protectors for adults and children;
- foam earplugs;
- silicone or acrylic earplugs;
- with and without filter;
- universal or custom-made.

The advantage of headphones is that they also provide soothing deep pressure on the head, which can have a dampening effect for sounds. However, if you prefer not to have anything on your head, plugs may be a better choice.

Some hearing protectors give a choice between dampening low, medium or high tones. You experience low tones especially well, because air pressure is involved. Think of a hard bass tone, which vibrates through your body. If this bothers you, choose dampening of low tones. The more painful tones are usually the higher tones. Shrill sounds, screaming, scraping chairs. When you are mainly concerned of the higher sounds such as sirens and screams, then you choose high tones dampening.







Noise canceling headphones work because they absorb the sounds in the environment, after which they quickly produce an 'anti-sound'. The sounds then cancel each other out. It works especially with low-frequency and monotonous sounds. So with predictable background noises such as buzz or the sound of aircraft engines. How well the headphones work varies by brand.

You can also choose to use a music device (such as an MP3 player or smartphone). You can listen to music, so that you are less bothered by ambient noise. You should keep the volume low. It should mask the ambient noise, not overpower it. Too loud a volume (above 80dB for a longer period of time) causes hearing damage.

When wearing hearing protection it is very important that you use it for relatively short periods of time. For example, during a performance, the time you walk through a fair, or during the school lunch in the cafeteria. When you wear hearing protection for extended periods of time, the brain will increase its sensitivity to sounds to compensate for a lack of information. This has the opposite effect, because the sensitivity will only get worse.

When a child really cannot function in a classroom without protecting his or her hearing from ambient noise, choose to use a music device, with music that the child enjoys and that does not distract them from doing their work. Have them stop the music during the moments when instruction is given. The brain experiences sounds which means it won't become more sensitive to sounds due to a lack of information.

If you have any questions, tips or ideas about hearing protection, you can email us at monique@dutchsensorysolutions.nl.

Kind Regards, Monique Thoonsen November 2021