

# Wearing gloves could help save your hearing

At first glance, gloves, sleeves, and earplugs might seem to be an unlikely trio of hearing protection gear. However, all three can play a role in saving your hearing.

Exposure to certain chemicals can bring hearing loss. These chemicals, which are found in some paints, pesticides, solvents, and drugs, could be inhaled, swallowed, or absorbed through the skin.

Once inside your body, these chemicals travel to the inner ear through the bloodstream. There, they can damage the hearing nerve or inner ear hair cells.

Depending on the chemical type, you might notice that sounds seem less clear and you have a difficult time hearing voices over background noise. You may notice that:

- Sounds are distorted,
- It is difficult to distinguish one tone from another,
- It is difficult to detect a pause between sounds, or
- It is hard to tell which direction a noise is coming from.

These effects could be temporary or permanent. The amount of damage depends on the amount of exposure to the chemical and how long you were exposed to it, as well as the level of noise.

Chemicals that have a harmful effect on hearing and balance are called ototoxic chemicals. They can damage hearing even in a quiet environment, but the risk of hearing loss increases when a person is exposed to these chemicals and certain levels of noise at the same time.



Exposure could occur at work or at home, and workers in certain jobs are at higher risk. Firefighters, machinists, and those who work in printing, painting, and pesticide spraying are among those at highest risk for exposure to both high noise levels and ototoxic chemicals. Ototoxic chemicals include carbon disulfide, toluene, carbon monoxide, acrylonitrile, and mercury compounds, according to the Occupational Safety and Health Administration (OSHA).

To reduce your risk of hearing loss from ototoxic chemicals:

- Read labels on cleaning solutions and chemicals, and follow the safety precautions listed.
- Wear gloves, arm sleeves, aprons, and other protective clothing when working with an ototoxic chemical that could be absorbed through the skin.



- Make sure the area is well ventilated. You may need to wear a mask or breathing gear.
- Wear hearing protection in a noisy environment.
- At work, review Safety Data Sheets (SDS) for ototoxic substances, chemicals, and health hazards. If possible, replace a hazardous chemical with one that is less toxic.



Some medications, including some antibiotics, cancer treatment drugs, and pain relievers with salicylate, can damage hearing. If you are concerned that medication you are taking could harm your hearing, or if you are concerned that exposure to other chemicals has caused damage, talk to your doctor.