

## Hearing Aids at Work

Hearing aids, which amplify sound, are not designed to act as hearing protection—whether turned on or off. The various wearing options and the associated problems are:

1. *Hearing aid worn, turned OFF; no hearing protection worn:* Though it may feel like it, the earmold (earpiece), or the body of the hearing aid will not effectively block out sound like an earplug. Many hearing aids have small vent holes to reduce pressure in the ear canal; these vents allow sound to come through and make the hearing aid a poor hearing protector, even if turned off. Furthermore, the material of custom moulded hearing protection is made from materials designed to block sound, and must meet current CSA standards for hearing protectors.
2. *Hearing aid worn, turned OFF; hearing protection (ear muffs) worn over top:* The earmold in the ear provides some sound reduction (attenuation) in addition to the attenuation the earmuff already provides. The combination of the two could block out too much sound—remember the wearer is hard of hearing. The worker may not hear vital warning signals or other essential sounds.
3. *Hearing aid worn, turned ON; no hearing protection worn:* If the noise at work is loud enough to permanently damage hearing, amplifying the noise with a hearing aid turned on could cause more hearing loss.
4. *Hearing aid worn, turned ON; hearing protection worn:* These workers feel they can't hear well with their earmuffs on. This may be because the earmuffs they are provided with have too much attenuation, i.e., they are Class A. The use of Class B earmuffs would make hearing easier, and the hearing aid unnecessary. Also, the perspiration that can be present under an earmuff is damaging to the delicate electronics of hearing aids.

**Even hearing aids with special circuits to limit loud sounds may produce hazardous exposures if worn in noise.**

There are a number of hearing protection options for hard of hearing workers:

- lower attenuation, that is, Class B, earplugs, earmuffs, banded plugs
- vented custom molded earplugs
- vented earmuffs
- flat attenuation (equal sound reduction at all pitches) earplugs, custom molded or pre-formed
- flat attenuation earmuffs
- communication headsets, for radio communication--earplugs or earmuffs
- electronic, which amplify a bit (not to a hazardous level)--earmuffs

For more information, contact the occupational audiologist in Hearing Loss Prevention Toll Free 1-888-621-7233 (extension 7149) or 604 232-7149 for local calls.