

How loud is it? — Construction

As a worker in the construction industry, you're exposed to hazardous levels of noise on the job. Regular exposure to sounds louder than **85 decibels (dBA)** can cause permanent hearing loss. The risk of permanent hearing loss is still present even if you aren't exposed to noise continuously. Construction workers have higher rates of hearing loss than workers in other noisy industries. And many young construction workers aren't wearing hearing protection while on the jobsite.

The risk of hearing loss depends on the noise level and how long you're exposed to it. Working in higher noise levels for a short time can cause the same harm to your hearing as working in lower noise levels for a long time. The table to the right shows how long you can be exposed to certain noise levels without harm. It also lists examples of typical noise-level ranges for various equipment types.



Your hearing protection must be the right size for you and be comfortable, and you must wear it properly.

Maximum daily unprotected exposure time by noise level in dBA		Examples of noise-level ranges (in dBA) by equipment type*
8 hours	85	Dump truck (84-88)
4 hours	88	Crane (78-103)
2 hours	91	Backhoe (85-104)
1 hour	94	Dozer (89-103)
30 minutes	97	Belt sander (93-104)
15 minutes	100	Pneumatic nail gun (98-101)
7.5 minutes	103	Concrete saw (97-103)
3 min, 45 s	106	Compactor (90-112)
1 min, 50 s	109	Grinder (106-110)
1 minute	112	Jackhammer (100-115)
30 seconds	115	Riveter; sandblasting nozzle (111-117)
15 seconds	118	Pavement breaker (98-120)
7.5 seconds	121	Piledriver (119-125)

* Based on data collected by WorkSafeBC; may not reflect all types of equipment or operating conditions. Newer, well-maintained equipment is usually quieter than older equipment.

To understand the risk you face, it's important to know how loud your work environment is and how long you're working in it. For example, regardless of your trade, if you're exposed to a noise level of 91 dBA (like a backhoe), you can only work in this environment for 2 hours before the noise becomes hazardous. If you do a variety of work, the noise exposure from the tasks adds up. For example, over an 8-hour day while using different types of equipment, labourers can be exposed to an average of 93 dBA. That's six times the safe dose of noise.

Because construction workers are exposed to hazardous noise, your employer must take steps to protect your hearing. These steps include reducing workplace noise, arranging annual hearing tests, and supplying you with adequate hearing protection.

Hearing tests

All construction workers must have their hearing tested every year. You will get a wallet card with your hearing-test results to carry with you. Compare the test results each year to see if your hearing is being properly protected.

Hearing protection

Your hearing protection must provide enough protection from noise. To do this, it must be the right size for you and be comfortable, and you

must wear it properly. (For example, if you can easily see a foam earplug from the front, it is not inserted correctly and may not protect you.) Make sure to wear your hearing protection before exposure to hazardous noise, and remove it only after leaving the hazardous-noise area. Your hearing protection must also allow you to communicate if you need to.

The Canadian Standards Association (CSA Group) recommends protection for 8 hours of exposure as follows:

Exposure (in dBA, averaged over 8 hours or equivalent)	Recommended CSA class
≤ 90	C
> 90 up to and including 95	B or BL
> 95 up to and including 105	A or AL
> 105	Dual*

*Dual hearing protection is required. Use a minimum of a Class B earmuff and a Class A earplug.

For more information

The following WorkSafeBC resources are available online:

- [Hear for Good: Preventing Noise Exposure at Work](#)
- [Hearing protection](#)
- [Hearing loss prevention](#)