Honeywell
HOWARD LEIGHT

CONSTRUCTION NOISE

KNOW THE RISKS AND HOW TO PROTECT WORKERS

CONSTRUCTION WORKERS EXPERIENCE THE SECOND HIGHEST RATE OF OCCUPATIONAL EXPOSURE TO NOISE HAZARDS

- Construction sites are noisy no matter what precautions are taken
- The jobs conducted and tools used vary within a shift or project – so do the noise hazards
- Impact-noise exposures are plentiful
- It's challenging to train and fit a part-time or transient workforce with hearing protection
- Site managers are often responsible for mandating hearing protection

COMMON CONSTRUCTION NOISE HAZARDS

93 dB	100 dB	102 dB	105 dB	110 dB	115 dB	116 dB	120 dB	121 dB	130 dB
Table Saw	Bulldozer	Impact Wrench	Chop Saw	Chain Saw	Hammer Drill	Generator	Hammer on Nail	Oxygen Torch	Jackhammer

85 dBA

Regular 8-hour exposures to **85 dBA** can damage hearing

100 dBA

Repeated exposures of just **1 hr/day to 100 dBA** noise can damage hearing

CFR 1926.101: *OSHA's regulation for hearing protection in construction. It states that wherever noise levels or duration of exposures exceed 85 dBA in an 8-hour time-weighted average, ear-protective devices shall be provided and used. Ear-protective devices inserted in the ear shall be fitted or determined individually by competent persons.*

Yet, more than 31% of noise-exposed construction workers report not wearing protective devices

CAUSES	EFFECTS
Continuous exposure to sounds ≥ **85 decibels**	Leads to temporary or permanent hearing loss
1-time impulse or impact noise exposure	Tinnitus (ringing in the ears)
	Limits ability to understand speech
	Impairs ability to communicate
	Reduces productivity
	Leads to social isolation and withdrawal
	Increases risk of hypertension and high cholesterol

EXPOSURE RATES AND EFFECTS:

51% of construction workers have been exposed to hazardous noise

25% of noise-exposed tested construction workers have a material hearing impairment (impacts day-to-day activities)

16% of noise-exposed tested construction workers have hearing impairment in both ears

14% of construction workers have hearing difficulty

7% of construction workers have tinnitus

DURATION OF EXPOSURE AND PROXIMITY TO THE SOURCE ARE KEY FACTORS THAT IMPACT THE EFFECT OF NOISE ON HEARING

Noise Induced Hearing Loss is fully preventable, here is how:

TIPS FOR PROTECTING CONSTRUCTION WORKERS' HEARING:

Be mindful of communication needs among workers and provide them with comfortable, convenient and compatible hearing protection solutions

Educate teams on site-specific noise hazards, invite safety specialists to speak on hearing protection, and encourage compliance through positive incentives

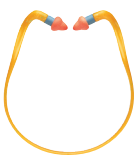
Hold free training classes on hearing protection and how to achieve a reliable, comfortable fit and encourage peer-to-peer support for using protective devices

VARIOUS TYPES OF PROTECTION DESIGNED FOR SPECIFIC CONDITIONS:

Disposable Foam Earplugs – for comfort and greater protection

Push-in foam earplugs – for ease of insertion and comfort

Reusable earplugs – for ease of insertion and reuse



Banded earplugs – for lower-level intermittent noise

Passive Earmuffs

Electronic earmuffs – for communication or impact noise

Optional: Custom molded earplugs – for difficult-to-fit workers