

# Ontario Occupational Noise Exposure Limits

## Governing Legislation

- **Occupational Health and Safety Act (OHSA)**
- **Ontario Regulation 381/15 – Noise** (in force since **July 1, 2016**)

## Exposure Limit (Legal Maximum)

### **85 dBA Lex,8**

- The **maximum allowable equivalent sound exposure level** is **85 dBA averaging over 8 hours (Lex,8)**.
- Employers must ensure **no worker exceeds this limit, without considering hearing protection** when measuring exposure.

## Exchange Rate (Dose Relationship)

### **3 dB Exchange Rate**

- For every **3 dBA increase, allowable exposure time is halved**.
- This is a **more protective standard** than the older 5 dB exchange rate.

### **Examples:**

- 85 dBA → 8 hours
- 88 dBA → 4 hours
- 91 dBA → 2 hours
- 94 dBA → 1 hour
- 97 dBA → 30 minutes

These relationships follow Ontario's Lex,8 calculation method.

## Measurement Requirements

- Noise exposure is assessed as **Lex,8** (equivalent continuous sound level normalized to 8 hours).
- Measurements may be taken using:
  - **Noise dosimeters** (preferred for personal exposure), or
  - **Sound level meters** (task/location based).
- Measurements are taken **without hearing protection applied**.

## Employer Duties When Noise May Exceed Limits

Employers must follow the **hierarchy of controls**:

1. **Engineering controls**
  - Enclosures, barriers, equipment substitution, maintenance
2. **Administrative controls / work practices**
  - Job rotation, reduced exposure time, scheduling
3. **Hearing protection devices (HPDs)**
  - **Only after** higher-order controls are considered

## Hearing Protection & Training

If HPDs are required, employers must:

- Select HPDs appropriate for the measured noise levels
- Ensure proper **fit, use, care, and maintenance**
- Provide **worker training and instruction**
- Ensure HPDs are used per **manufacturer instructions**

## Warning Signage

- Clearly visible **warning signs** must be posted at entrances to areas where noise **regularly exceeds 85 dBA**, where practicable.

## Scope & Coverage

- O. Reg. 381/15 applies to **all workplaces covered by OHSA**, including:
  - Construction projects
  - Health care facilities
  - Schools
  - Farms
  - Fire, police, and emergency services

## Comparison (Helpful Context)

- **Ontario**: 85 dBA Lex,8, **3 dB exchange rate**
- **Federally regulated workplaces**: 87 dBA Lex,8, 3 dB exchange rate

Ontario's limit is therefore **more protective**.