

Decibel Ratings and Hazardous Time Exposures of Common Noises

Decibels (dB) are measured logarithmically. An increase of 10 dB is ten times as loud. Thus, 80 dB is 10 times louder than 70 dB and 90 dB is 100 times louder than 70 dB.

Typical level(Decibels)	Example	Dangerous Time Exposure
0	Lowest sound audible	All exposure is safe
30	Quiet Library, soft whisper	All exposure is safe
40	Quiet office, or living room	All exposure is safe
50	Light traffic at a distance, refrigerator, gentle breeze	All exposure is safe
60	Air conditioner at 20 feet, conversation, sewing machine	All exposure is safe
70	Busy traffic, noisy restaurant. At this level, noise may begin to affect hearing if you are constantly exposed.	Risk begins
80	Subway, heavy city traffic, alarm clock at two feet	Over 8 hours
90	Truck traffic, noisy home appliances, shop tools, lawnmower. As loudness increases, the safe time exposure decreases.	Under 8 hours
100	Chainsaw, boiler shop, pneumatic drill. Exposure may be dangerous at 100 dB. Safe exposure time is cut in half with every 5 dB increase.	Under 2 hours
120	Rock concert in front of speakers, sandblasting, thunderclap. At 120 dB, exposure can injure the ear.	Serious danger
140	Gunshot, jet plane at 50 feet. Noise at 140 dB may cause actual pain in the ear.	Any exposure can cause damage
180	Rocket laynching pad. Without ear protection, noise at this level causes irreversible damage.	Hearing loss inevitable