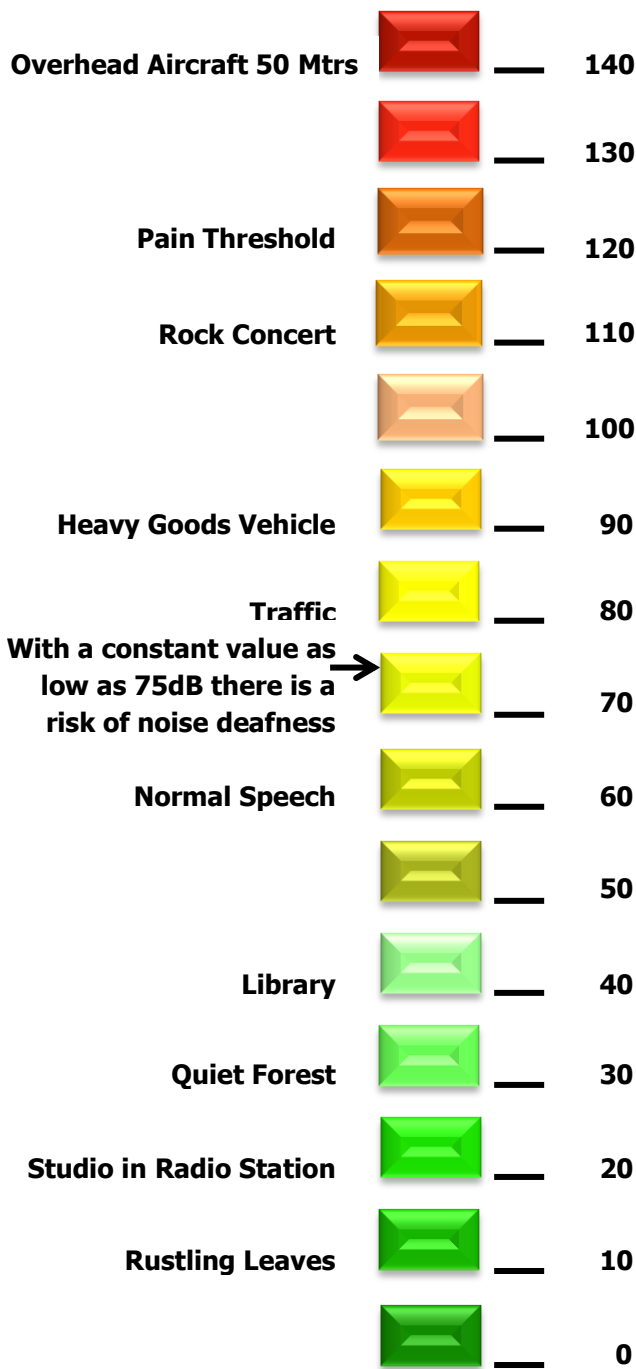


# Sound Reduction

Sound doesn't have to be complicated...



## How does sound travel?

Sound travels through the air like ripples on a pond surface when a stone is dropped into it. The sound radiates outwards in all directions from the source, gradually reducing in intensity or until an object stops its progress.

## Sound (dB Decibels)

Sound is described in different ways but primarily in terms of intensity and frequency. The sound intensity is described in dB. A low dB indicates a soft sound, a high dB value indicates a loud sound.

Frequency describes how high or low pitched the sound is (Hz).

## Sound Reduction

A stereo's volume set at **60dB** decreased by...

- 3dB is just perceptible
- 5dB clearly noticeable
- 10dB Half the original volume

## Recommended Indoor Ambient Noise Levels

### Dwellings:

- Bedrooms 30-35dB
- Living rooms 30-40dB

### Offices:

- Private 35-40dB
- Open plan 45-50dB

## Typical noise levels

- 50 metres overhead aircraft 140dB
- Car alarm 120dB
- Passing train 90dB
- 20 metres from busy carriageway 78dB
- 20 metres from busy main road 68dB



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