



NOISE POLLUTION



Suppose you are spending some quiet time alone—reading, studying, or just daydreaming. Suddenly your peaceful mood is shattered by the sound of a lawn mower, loud music, or an airplane taking off. If this has happened to you, then you have experienced noise pollution.

Noise is defined as any loud, discordant, or disagreeable sound, so classifying sounds as noise is often a matter of personal opinion. When you are at a party, you might enjoy listening to loud music, but when you are at home trying to sleep, you may find the same music very disturbing.

There are two kinds of noise pollution, both of which can result in long-term hearing problems and even physical damage to the ear. The chapter “Sound” explains how we receive and interpret sound.

How Can Noise Damage Hearing?

The small bones and hairlike cells of the inner ear are delicate and very sensitive to the compression waves we interpret as sounds. The first type of noise pollution involves noises that are so loud they endanger the sensitive parts of the ear. Prolonged exposure to sounds of about 85 dB can begin to damage hearing irreversibly. Certain sounds above 120 dB can cause immediate damage. The sound level produced

by a food blender or by diesel truck traffic is about 85 dB. A jet engine heard from a few meters away is about 140 dB.

Have you ever noticed the “headphones” worn by ground crew at an airport or by workers using chain saws or jackhammers? In most cases, these are ear protectors worn to prevent the hearing loss brought on by damage to the inner ear.

Whose Noise Annoys?

The second kind of noise pollution is more controversial because it involves noises that are considered annoyances. No one knows for sure how to measure levels of annoyance, but sometimes annoying noise becomes intolerable. Lack of

