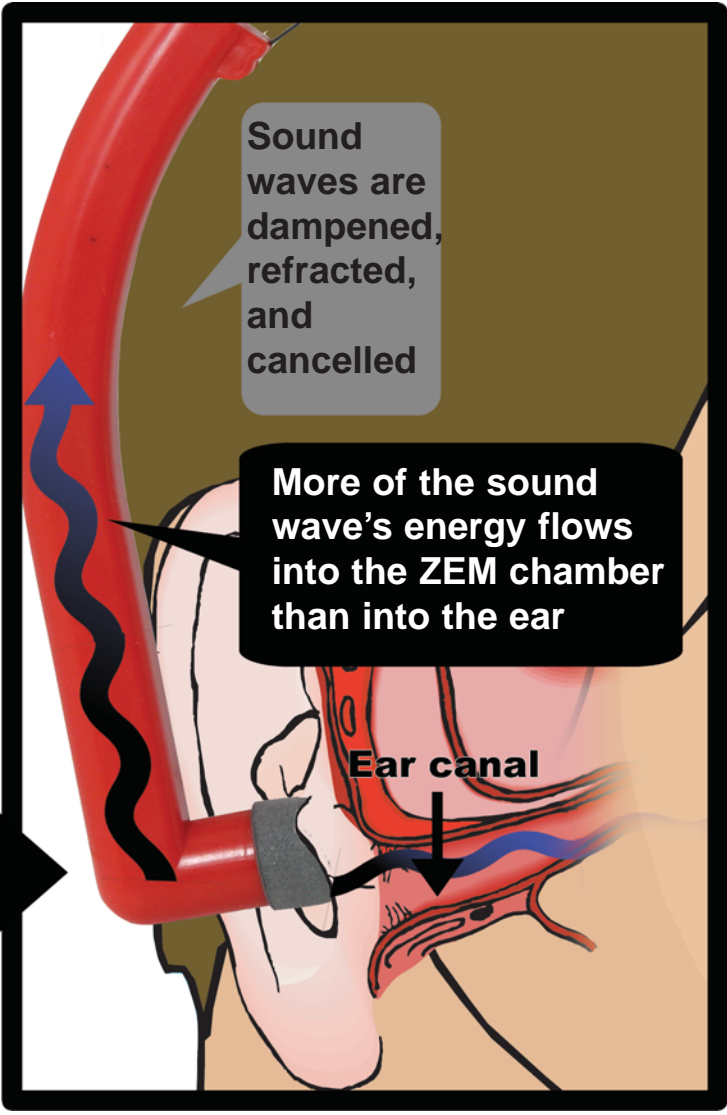


How The ZEM Works

The ZEM is two chambers that seat on the outer ears of the user. As sound reaches the ear of an individual wearing the ZEM, the volume of sound is reduced in several ways.

Sound is Directed Away From the Sensitive Ear Anatomy

The patented ZEM technology revolutionizes the way hearing protection works. Unlike ear muffs and ear plugs that attempt to block sound from entering the ear, the ZEM instead directs sound away from the ear. Sound waves will follow the path of least resistance. Because the volume of air inside the ZEM chamber is larger than the volume of air in the ear canal, the ZEM chamber offers less resistance to sound than the ear canal. Sound waves flow into the the ZEM chamber and away from the ear.



Sound Canceling Without Electronics

Once inside the ZEM chamber, sound is dampened and cancelled as the waves pass through a custom acoustic material which absorbs the sound. Once past this filter the ZEM uses the physical properties of sound waves to refract and cancel.

Tuned for Effectiveness

The length of the ZEM chamber is designed to be most effective in the middle range of sound frequencies. This particular configuration achieves over 32 decibels of noise reduction and does so evenly across all frequencies.