



Put simply, sound is transmitted through a series of chambers, initially travelling via the ear canal to the eardrum and ending up in the brain. For the purpose of sound therapy, the middle ear is where the important stuff happens. It consists of three bones and two muscles, with the bones picking up the vibrations from the eardrum and transmitting them to the inner ear.

## block it out

It's the middle ear that can override the vast amounts and kinds of sounds travelling to the inner ear by controlling the amount of vibration in the bones, and the amount of sound that's transmitted to the inner ear and brain. It does this by increasing the tension of the two middle ear muscles, thereby reducing the amount of vibration occurring in the middle ear bones.

Because we're constantly surrounded by very loud sounds, and sounds we'd rather not pick up on, the ear is continually encouraged to dampen these sounds down, pushing them into the background. The continual tensing of these muscles means they become rigid over time, blocking our ability to hear the whole range of sounds available to us, inhibiting our ability to learn, concentrate, communicate and get motivated. This "loss" of hearing can also make you irritable and can even lead to social withdrawal as you find it more and more difficult to differentiate sound and hear conversations.

To combat this, sound therapy works by re-educating the auditory processing system. "Sound is food for the brain," explains Hawke. And as with any kind of food, some types are better than others. "The music of Mozart and the baroque masters that contains particular rhythms, harmonies and a full range of frequencies is the basis for sound therapy," she says.

Joudry agrees: "The ear is more likely to open up to soft harmonic sounds," she says, "and in the process of doing so the muscles in the middle ear will relax and their tension will be lower." In sound therapy this effect is intensified by filtering specific kinds of music in such a way that the emphasis is on the higher frequencies.

"In a sense, these muscles are receiving a micro-massage, and are being exercised and toned," Joudry says. "A chain of events is then set in place – more high frequency sounds are transmitted to the inner ear, stimulating the receptor cells here and eventually in the hearing centre of the brain.

"This therapy then needs to be done on a regular basis, to re-teach the ear and the brain how to hear and listen to sounds."

Sound therapy is said to help in three ways: by exercising the middle ear muscles, stimulating the cilia, and opening our ears by unblocking psychological barriers. "Hearing is sometimes closed down to some extent for psychological reasons and sound therapy encourages the resolution of these psychological issues by reintroducing high frequency sound and re-creating the pre-birth experience of sound," says Joudry. "As the psychological issues are resolved, you will become more open to the full range of hearing."

## the energiser

"Did you know that 86 per cent of the energy for your brain comes through your ears?" asks Hawke. While the ear is responsible for learning and communication, she says, the energy it receives also keeps us motivated and stimulated. When we begin to block out

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certain sounds we rob ourselves of the precious energy we need to get through the day. "Listening to sound therapy gives you more energy than a cup of coffee and makes you happier and healthier. Voice and ear are inextricably linked, as both are foundations of neurological, emotional and social development."

The variety of benefits experienced by sound therapy listeners seems extraordinary, says Joudry, yet this is only because we fail to recognise the profound importance of the ear to our overall functioning and wellbeing.

"The ear is the gateway to the brain. It is linked via the cranial nerves to many other organs and it's the organ by which we orient ourselves in our environment and in relation to others." We can experience remarkable things, she says, when we can hear well and we can listen properly. So open your ears to a new experience, you may surprise yourself.

For more information, go to www.learningconnections.com.au; www.soundtherapyinternational.com