

Peace, quiet pave road to health

Noise can take a bigger toll on the body than you think

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Your high blood pressure, digestive ills or recurring colds might stem from an inescapable and perhaps surprising source: noise.

Fortunately, though, there's an antidote in quiet, a hard-to-find but healing gift.

Eight hours of 85-decibel noise, a little less than that emitted by a lawn mower or motorcycle, can damage hearing, but that's only the most obvious of several ways life's clamor harms our physical and mental health.

It may begin even before birth, if animal studies revealing noise-linked fetal effects - some of them subtle - are an adequate measure. Loud sounds can produce anxiety in the mother and her fetus, for example, potentially contributing to hyperactivity in the infant.

"Noxious levels of sound are stressful," physician Jack Westman says, "and they evoke a whole range of physical responses. The most common are an increase in blood pressure and heart rate."

Noise also has been blamed for contributing to cardiovascular disease, impairing school performance, increasing accident risk and causing headaches and depression, says Westman, professor emeritus of psychiatry at the University of Wisconsin School of Medicine and Public Health.

But humans couldn't survive without it.

"Sound that exceeds a certain level or is unfamiliar alerts us to danger," he says by phone from Madison. "It triggers the flight-or-fight response."

In the short term, that response can save us in an emergency. Sound is registered in the brain's auditory cortex and activates the pituitary and adrenal glands to release stress hormones, readying us to jump out of the way of an approaching truck or to fend off a threatening dog.

"It's automatic," Westman says. "You become accustomed to noise over time

and it may not consciously bother you anymore, but it's still activating these systems."

Noise in a restaurant can set the stress response in motion, even though the only danger you may face there is overeating. But when stress hormones are released in tandem with the digestive process, food won't taste as good or be metabolized as efficiently as when eaten in a quiet environment.

That's one of the reasons that Janet Luhrs, author of *The Simple Living Guide* (Broadway, 1997, \$22.95, paperback), tries to start her day with breakfast in the garden at her Seattle home.

"I'm hearing the birds chirping, enjoying the plants and feeling a little breeze," she says. "It's a very calming atmosphere, and it sets the tone for the rest of the day."

Luhrs says she learned the importance of a peaceful morning routine from a doctor who said it takes only 12 minutes to decrease levels of the stress hormone cortisol and improve mental function. Hormones are highest when people wake, he told her.

For similar reasons, the Rev. Deanne Hodgson, an associate pastor at the Church of the Beatitudes in Phoenix, counsels parishioners preparing for surgery in ways to discover inner quiet in bustling hospital settings.

Hodgson is a registered nurse and certified tai chi instructor who leads classes in the Chinese mind-body relaxation exercises at the church. The classes are open to the public.

"We're constantly being bombarded, not only with sound but with visual 'noise,'" Hodgson says. "The challenge is to discover a peaceful place within yourself, and that's where the practice of meditation of any sort is very useful."

When people become quiet, she says, their breathing gets deeper, their circulation improves and their blood pressure drops.

Researchers have learned that heart patients in hospitals using noise-abatement techniques have better pulse rates. In noisier hospitals, newborns require oxygen more often and the incidence of re-hospitalization is higher in patients overall.

Facing back surgery for sciatica, Dorothy Bentzin settled into a hospital waiting room at 4:30 one morning in August and created her own oasis by practicing tai

chi.

"It's the quietness you get in tai chi," the Phoenix woman says, "the way the concentrated movement and thinking and being calm slow you down. It helped me be less nervous."

The next day, Bentzin did tai chi arm movements in bed, eager to resume at least part of the regimen, including stretching, yoga and meditation, that has helped her lose 60 pounds and regain good health in the past three years.

For Bentzin, 67, busy with part-time work in a cake-decorating supply store, her family of five children and eight grandchildren, and close friends, tai chi "is a tremendous stress reliever."

By whatever means, reducing noise-induced stress seems to help with less-serious ailments, too. In a study led by psychologist Sheldon Cohen, anxious test subjects exposed to rhinoviruses were more susceptible to the common cold than relaxed subjects.

Cohen, of Carnegie Mellon University's Laboratory for the Study of Stress, Immunity and Disease, says the reasons noisy environments make people sick aren't completely known.

In animal studies, his lab has found associations between chronic stress and impaired immune function.

People who are relaxed and happy, Cohen says, probably "have lower levels of stress hormones and also have more positive health practices, such as not smoking, drinking moderately, sleeping better and so on."

What is known is that people require not only sleep, but periods of relaxation while awake, the UW's Westman says.

"There's no question that children need this, too," he says. "This is something they're inclined toward naturally. If you take 2-, 3- or 4-year-olds and give them the opportunity to engage in solitary play, they will self-soothe themselves with quiet activities."

Schools recognize that need by enforcing periods of "quiet time," but grown-ups may have to work a little harder to create such breaks for themselves.

Even short reprieves can aid healing from what some European medical researchers call "noise sickness."

Hodgson, of the Church of the Beatitudes, seeks quiet in photography, taking photos of healthy green grass sprouting against the odds through cracks in the asphalt. Others might find it in practicing yoga, taking a walk with no purpose but the pleasure it brings, or doing breathing exercises.

"No matter where you are," Hodgson says, "you can take a deep breath in through your nose, be mindful of it, hold it for a count of eight and then slowly let it go out through your mouth while you look at something beautiful.

"It relaxes your body, focuses your mind and centers your spirit. It keeps you right, and that's kind of astounding. You don't even have to kick everyone out of the house to do it."

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