Make Gentle Your Life...since stress

is making you sick. Aimee Lee Ball reports on how to attain a state of calm without crawling under a rock.

Photographed by Frederik Lieberath

Our grandmothers were right when they warned, "You'll worry yourself sick." Whether troubles are transient (lost luggage, traffic gridlock, El Niño damage to your roof) or chronic (a date with the IRS, a never satisfied boss, an overwhelming Visa balance), it now seems clear that disease is connected to anxiety. There is significant and convincing scientific evidence that stress can contribute to a broad variety of health problems, from the common cold to cancer. "Between 60 and 90 percent of the complaints brought to a doctor's office are due to stress," claims Dr. Herbert Benson, president of the Mind/Body Medical Institute at Harvard Medical School. "All forms of pain are made worse by stress. It contributes to mild and moderate depression, cardiac irregularity, impotence, PMS, infertility and menopause."

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All of us react to stress—the perception of a threat to our physical or psychological well-being and the feeling that we can't cope—with a set of involuntary physiological changes called the "fight or flight" response. It's the same response that helps an animal in the jungle get ready for conflict or to escape. Your body taps into stored energy, transferring it from fat cells and the liver (where you don't need it at the moment) to the muscles. Your heart rate, blood pressure, breathing and metabolism all speed up, thanks to the secretion of stress hormones such as adrenaline. And since your body is in survival mode, it postpones any unnecessary projects: Digestion and growth are inhibited, reproduction and sex drive slow down—and the immune system is suppressed.

This primal response is set in motion to help us prepare to fight or to flee when faced with physical danger, just like a wild beast. But animals don't have in-laws, deadlines, divorce courts and the stock market. Physiologically, our bodies aren't designed to differentiate between a true physical crisis and a long line at the bank. This instinctual response is doing us in, writes Stanford University biologist Robert M. Sapolsky in *Why Zebras Don't Get Ulcers* (W.H. Freeman). "A large body of evidence suggests that stress-related disease emerges [because] we activate a physiological system that has evolved for responding to acute physical emergencies, but we turn it on for months on end, worrying about mortgages, relationships and promotions."

Indisputable Evidence

In a seminal 1991 study at Carnegie-Mellon University, in Pittsburgh, psychologist Sheldon Cohen and his colleagues inoculated almost 400 volunteers with five respiratory viruses and discovered that the risk of getting sick was directly proportional to the amount of stress the subjects had recently experienced. And in a study at Ohio State University, psychologist Janice Kiecolt-Glaser and her colleagues followed medical students in their 20s at exam time (your basic high-stress situation), injecting them with a hepatitis B vaccine and measuring how long it took them to mount an antibody response. More than half of those who were anxious about the exams showed a decreased antibody or immune response. "Medical students are experts at taking tests," says Kiecolt-Glaser. "Yet even these young, healthy people were at greater risk for getting sick and having a more prolonged illness."

After studying newlyweds and older married couples, Kiecolt-Glaser found that immune function was also dramatically reduced by the stress of marital discord. Couples were hooked up to IV tubes, which allowed researchers to draw blood samples at regular intervals while the husband and wife discussed sensitive or problematic topics. The more the couple displayed negative, abrasive behavior toward each other, the greater the amount of stress hormones in their blood, and the more their immune systems were weakened.

Though even the scientists who have delved deeply into the research acknowledge how difficult it is to document and prove conclusively that stress causes disease, it's easy to see the plausible link between stress and illness in commonplace incidents: You're going on vacation, you have 8000 errands on your checklist before you board the plane, and once you sit in your assigned seat, you come down with a cold. Or you have to spend several days with irascible out-of-town relatives sleeping on the sofa bed in your living room, and the moment they leave, you get a stomach flu.

But stress and illness don't take their toll in a democratic fashion. It's the interpretation of an event that elicits the body's stress response, and all of us perceive life in unique and arbitrary ways. Psychologist Suzanne Kobasa, then at the University of Chicago, studied why some people with high-stress jobs—politicians, soldiers and district attorneys, not to mention those of us with tyrannical schedules and unforgiving responsibilities—seem to be more resilient to stress.

She found that robust people have characteristics of stress hardiness labeled the three *c*'s: commitment, control and challenge. *Commitment* means being engaged and interested in people and activities (the opposite is feeling alienated). *Control* means the ability to make things happen (the opposite is feeling powerless and victimized). *Challenge* means confidently taking on new experiences (the opposite is feeling threatened).

Other researchers have added a fourth *c:* community. Belonging to a strong social network seems to help the body resist the common cold and other upper-respiratory illnesses, according to a 1997 study by Cohen. Healthy volunteers were asked to report the number of social relationships they had. When they were quarantined and monitored for the development of sniffles, 62 percent of those with three or fewer types of relationships got a cold, while 35 percent of those with six or more types of relationships got sick. Cohen speculated that a more diverse social network promotes feelings of self-worth and responsibility and gives meaning to life, so these people may be better motivated to take care of themselves. And successful social relationships may alter our moods, boosting levels of immune-system-regulating hormones.

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Learning to Relax

Although the fight-or-flight response is ancient, automatic and instinctual, it may do more harm than good in 20th-century society. Enter Harvard's Benson, who has developed a modern neutralizing counterpunch called the relaxation response. Essentially, it's a learned behavior that can offset or reverse the body's instincts and produce a profound effect on health.

"Belly breathing"—learning to inhale from the diaphragm rather than the chest (as most of us do), so breathing isn't shallow or restricted—is the first part of the relaxation response. Benson prescribes 10 to 20 minutes daily, but you can also do a "mini"—a refreshing quickie in which you focus on your breath and repeat a word or phrase, or simply count. (As you inhale, you might say, "I am," and as you exhale say, "at peace." Or count "One-two-three-four" on the in breath, and "four-three-two-one" on the out.) You can do minis hundreds of times a day: When your boss says, "Come into my office"; when you're called from the waiting room to the dentist's chair; when you're waiting at the door of your blind date's apartment.

Once you've mastered diaphragmatic breathing, the next step is "mindfulness": focusing attention on the here and the now, not drifting into wishes about the past or frets about the future. Being mindful, for example, means that when you're taking a shower, you're completely absorbed in the act of taking that shower, without thinking about anything else, like the speech you need to give or the secretary you want to fire. Imagery can help: Put that speech on a cloud and let it float away into the blue sky, or watch it roll out to sea on a wave. The opposite of being mindful is going to the refrigerator and forgetting why you're there, or picking up the phone and not knowing whom you intended to dial. (Psychologist Jon Kabat-Zinn, director of the stress-reduction clinic at the University of Massachusetts Medical Center, came up with the perfect explanation of mindfulness for the title of his book: *Wherever You Go, There You Are* [Hyperion].)

Changing "cognitive distortions," those exaggerated or illogical beliefs that can quickly lead to stressful emotional states, is the last—and, probably, most difficult—step of the relaxation response. There's "all-or-nothing thinking" (when stuck in line at the supermarket, you think: I always pick the wrong cashier); "mind-reading" (someone doesn't say hello, so he must dislike you); "fortune-telling" (you're waiting so long at the doctor's office, you know you'll never get to work); and "should-have statements" (stuck in traffic, you blame yourself for not taking a different route). Reversing these thought processes requires more than just willpower (if only it were so easy); it takes time to unlearn these behaviors, which is why stress-management workshops can help.

Psychologist Ann Webster, a protégé of Benson's at Harvard, leads workshops in stress management for people with serious illnesses such as cancer and AIDS. But Webster also teaches the techniques to lawyers, bankers and other corporate warriors. She often begins by affixing a small "bio-dot" to the soft web of a person's hand: The dot starts off black, and as the person relaxes and the hand warms, it changes color. "I had a financial analyst in one group," she says, "who said, 'I seem to have a defective dot.' I gave him a different one, and after a while, he said, 'This one's not working either.'" Men like this are hard cases because they often believe that learning to relax will mean losing their competitive edge, even though Harvard studies have shown the opposite to be true. We all have a peak-performance zone: We need a certain amount of stimulation to feel progress, creativity, satisfaction. Too little leaves you bored and stagnant; too much, out of control. But overstimulation—and its attendant stress—leads to ineffective problem-solving, short-term memory loss (one woman in Webster's group left the house with a wooden hanger still in her coat), exhaustion and even illness. We don't get ill each time we're stressed, but the effect can be cumulative.

The chronically stressed often go to what Webster calls "the doors of compensation"—the door to the medicine chest, the liquor cabinet, the refrigerator. The relaxation response offers an alternative: a series of simple, though not simply accomplished, practices. Webster is fond of saying, "When the only tool you have is a hammer, you tend to treat everything as if it were a nail." Stress management is a toolbox.

If the idea of living mindfully to reduce your stress seems wimpy or prosaic to you, then consider the real science. At North Carolina's Duke University Medical Center last year, researchers studied patients with coronary-artery disease—the leading cause of death in the United States for both men and women—and found that stress-management techniques reduced their risk of a heart attack and surgery by 74 percent. Even if we're not heart attacks waiting to happen, perhaps something relatively simple, like breathing correctly, *can* lessen our risk of serious illness, even prolong our lives. Then maybe, just once, we could all go on vacation without catching a cold. ■