



DIAL DOWN STRESS

How to Stay Calm and Cool

by Lisa Marshall

Whether from natural disasters, divisive politics, unmanageable workloads or a smartphone culture that makes it tough to unplug, U.S. adults are feeling more strain now than they have at any other time in the past decade, according to the American Psychological Association's 2017 Stress in America Survey. One in three say their stress has increased in the past year and one in five rate the level at eight or more on a scale of one to 10. About three in five, or 59 percent, say they believe this is "the lowest point in the nation's history" and nearly two-thirds say concerns about our nation's future (including its health care, economy and international relations) are key sources of their stress.

"We're seeing significant stress transcending party lines," notes Arthur C. Evans Jr., Ph.D., the association's CEO.

All that stress is having a powerful impact on health, with as many as 80 percent of visits to primary care physicians characterized as stress-related, according to

Adopting the right attitude can convert a negative stress into a positive one.

~Hans Selye

the American Medical Association. Workplace stress accounts for 120,000 deaths a year—more than influenza, diabetes and Alzheimer's disease combined—according to a 2015 Stanford University study.

Yet, empowering news has emerged amid this epidemic of anxiety-related illness. Research shows that by eating right, exercising and changing our mindset about stress itself, we can buffer our bodies from many health hazards.

"Unfortunately, you can't always avoid the things that stress you out. But you can control how you respond to stress before it takes over your life," says Melanie Greenberg, Ph.D., a Mill Valley, California, psychologist and author of the recent book *The Stress-Proof Brain: Master Your Emotional Response to Stress Using Mindfulness*

and Neuroplasticity.

Our Brain on Stress

Whether it's an urgent email from the boss or a rude motorist driving unsafely, tense situations elicit a physiological response remarkably similar to what might occur if we were chased by a lion.

Deep inside an almond-shaped region of the brain called the amygdala, an alarm goes off, signaling the release of hormones like adrenaline and cortisol that boost heart rate, usher extra blood to muscles, hasten breathing and spike blood sugar to provide more fuel for the brain to react.

Evolutionarily, this response was key to early human survival, providing the energy boost needed to flee predators. Even today, it has its upside, says Greenberg. "In the short term, stress can be exciting and even beneficial, revving you up so you can put your passion and energy into something."

But chronic excess can lead to high blood pressure and blood sugar, inflammation, cognitive problems and a hair-trigger

response to stress, in which our body overreacts even to mild annoyances. It can also, research suggests, accelerate aging by eroding the protective caps on our chromosomes, called telomeres.

“Think of the stress response as an elastic band,” says Dr. Mithu Storoni, a Hong Kong physician and author of the new book *Stress Proof: The Scientific Solution to Protect Your Brain and Body — and Be More Resilient Every Day*. “If you pull it and it snaps back immediately, that’s fine. But if you pull it too intensely or too frequently, it doesn’t snap back, and there are lots of downstream consequences.”

Stress-Proofing Our Body

Eating right can better protect our bodies, says New York City Registered Dietitian Malina Malkani. She recommends loading up on nutrient-dense, high-fiber foods like leafy greens, beans and lentils, nuts and seeds during stressful times, because they can slow our rate of digestion and minimize unhealthy dips and spikes in blood sugar.

Beneficial, bacteria-rich foods like yogurt, kefir, sauerkraut and kimchi are other foundational foods for stress-resilience, says Storoni, because they can dampen bodily inflammation that arises from chronic tension. They can also replenish bacterial strains like *lactobacillus* and *bifidobacteria* which, according to studies of college students, tend to decrease when we feel pushed beyond our limits to handle what’s coming at us.

One 2016 study of 171 volunteers, published in the *Journal of Complementary and Alternative Medicine*, found that those that ate yogurt containing *lactobacillus plantarum* daily for two months had fewer markers of stress in their blood. Another study published in the *European Journal of Clinical Nutrition* in 2007 found that when 132 adults drank a probiotic-infused milk drink daily for three weeks and were then subjected to an anxiety-prone situation, their brains reacted more calmly than those of a control group.

“Probably the most important thing you can do to make your body stress-resilient is to maintain a healthy ecosystem of bacteria in your gut,” advises Malkani, who recommends exchanging dessert for

low-sugar yogurt every day and taking probiotic supplements as well as steering clear of sweetened beverages and refined carbohydrates. The spice turmeric is also a good stress-buster due to its anti-inflammatory properties and ability to help normalize blood sugar, Storoni notes.

Despite our natural craving for comfort food, it’s a good idea to go easy on saturated fats in the immediate aftermath of a traumatic situation, because stress slows fat metabolism. In one recent study, Ohio State University researchers asked 58 women about their previous day’s stressors, and then fed them the fat-loaded equivalent of a double cheeseburger and fries; the stressed-out women burned 104 fewer calories.

“If a woman had a stressful day at work every day and ate a meal like this, she could easily gain seven to 11 pounds in a year,” says study author Jan Kiecolt-Glaser, a professor of psychiatry and psychology and director of the university’s Institute for Behavioral Medicine.

Exercise, too, can help combat stress-related illness. But Storoni attests that not all exercise is created equal. One recent study in the *Journal of Physiology* found that in animals daily moderate exercise (the equivalent of a light jog) can boost levels of brain-derived neurotrophic factor (BDNF), a critical brain protein diminished by stress and sleep deprivation, significantly more than weight training or intense exercise. On the flip side, excess strenuous exercise (laps around the track or an intense gym workout) can boost inflammation, whither brain cells, and aggravate the physical impacts of stress, says Storoni.

“If you want to exercise to relieve the stress you just experienced, keep it at low intensity,” counsels Storoni. If possible, work out in the morning, as it can boost melatonin levels at night, helping you get to sleep faster, she notes.

Stress-Proofing Our Mindset

While diet and exercise can buffer our body from the impacts of chronic stress, a shift in mindset can keep it from becoming chronic in the first place, says Greenberg. “The goal is not to eliminate stress, but to put it in its place—to use its energizing and motivating

aspects to take care of what needs to be done, and then relax,” and stop paying attention to it. This, she says, requires being mindful of what’s happening in the present moment.

“When you feel your heart racing at the sight of another urgent demand at home or work, stop what you are doing, take a deep breath and tune into what’s happening in your body,” advises Greenberg. She notes that when the highly reactive amygdala “hijacks the brain”, we often say and do things in the heat of the moment that we later regret. Waiting just a moment (like counting to 10) allows the more rational part of our brain (the prefrontal cortex) to kick in. “It allows you to go from panic to, ‘I’ve got this.’”

Greenberg observes that we often feel most stressed when we feel out of control. When faced with a daunting task, it may help to make a list of the things we have control over and a list of the things we can’t control—then make a plan to act on the manageable one and let the others go.

“Mindfulness is also about keeping our self-judging and ruminating mind at bay, which may keep repeating, ‘I’m not doing enough,’” she says. “Realize that you do not have to listen to every thought that comes into your head. Ask yourself, ‘What is the most important thing for me to focus on right now?’”

Greenberg also says it’s important to aim to broaden and brighten our view in tough times, explaining, “Feeling stress biases your brain to think in terms of avoiding threat and loss, rather than what you can gain or learn from the situation.” Start by jotting down three ways this challenging situation may be beneficial in the long run; also make a list of things and people we are grateful for, she suggests.

“Practicing gratitude helps you realize that you have a choice about what to focus your attention on and you don’t have to let stressors take all the joy out of life,” according to Greenberg. As an added bonus, “You’re less likely to take your stress out on loved ones when you think about what they mean to you and how they have helped you,” she says.

Lisa Marshall is a freelance health writer in Boulder, CO. Connect at LisaAnnMarshall.com.