

Throttle Back on Stress

John Shutske, Professor and Extension Agricultural Safety and Health Specialist at the University of Wisconsin–Madison

When I was a little boy, I was intrigued by trucks, tractors and machines like any farm kid. I understood what the gas pedal was in my mom's car and my dad's pickup. But it took me a while to understand exactly what the throttle did on the steering column of our John Deere 4020 and how it controlled fuel flow.

Understanding stress is similar — and for our health and the well-being of our loved ones and relationships, learning where to find the levers to “throttle down” the chemicals that fuel high levels of stress is crucial.

All people feel short-term stress when something frightening happens: a fire in a building, a letter informing you of an increase in your operating loan interest rate, unexpected medical news. When we encounter acute events or “stressors” like these, the information we channel through one or more of our five senses triggers a chain of responses that start in the brain.

Your brain tells your pituitary gland to release small amounts of hormones that tell your body to yank down the throttle to add fuel to the stress response. These hormones flow through your bloodstream and quickly turn on a bigger release of neurotransmitter and steroid hormones (mainly adrenaline and cortisol) that have immediate effects we all recognize.

These hormones speed up your heart rate. Blood pressure increases. Stress hormones cause your spleen to release more red blood cells to supply oxygen so you can act quickly. Lots of other things happen — blood sugar increases, our digestive and reproductive systems go on a temporary vacation, and the front part of the brain that is responsible for deep thinking, careful decision-making and productive communication becomes less effective.

Understanding stress

In short-term stress situations, the response of “fight or flight” is helpful. We are prepared to fight a threat (like calling 911 and grabbing an extinguisher to fight a fire), or we can run away from the situation. In scary situations, sometimes this release of hormones is so overwhelming that we “freeze up.” Humans have developed this acute stress response over thousands of years. It helps ensure our survival.

The problem is that during prolonged challenging and stressful times, over months or years, this stress response repeats itself over and over. The brain has thermostat mechanisms that keep these chemical releases in check, and these mechanisms become less effective, or they simply begin to wear out. The result becomes long-term, chronic stress that often leads to physical and mental health problems (cardiovascular disease, diabetes, infection, depression), injury (because of constant distraction while working) and deteriorating relationships. The constant presence of high levels of this stress fuel (adrenaline and cortisol) can make it more difficult to make smart and focused long-term financial decisions. Chronic, unresolved stress sometimes leads to substance abuse, addiction and even suicide.

So, the question is: Where is this “throttle” that we can pull back on or release to slow the flow of the hormones that fuel chronic stress?

There are many answers to this question, and I recommend you explore the publications cited at the end of this article for more information. But here are some specific suggestions. There are many stress throttle levers. We need to pay some attention to all of them if we want to cut back on the stress-inducing fuel supply.

Check in with your primary health-care provider.

Fighting off stress in difficult times takes physical energy. If you are dealing with underlying health problems or conditions, it's important to seek good medical advice and follow the directions of your local physician or other health professional whom you trust.

Give your body the quality fuel that it deserves.

Coping with stress, difficult financial decisions and an uncertain future requires that you eat well and provide the high-quality energy your body needs. Our brains are relatively small (about 3 pounds). Yet the brain burns 20% of the energy our body uses. No farmer would dream of heading out to harvest an 80-acre field in a \$300,000 chopper or combine filled with lousy-grade, dirty fuel. The crop won't get harvested, and the machine will break down when it's most needed. But sometimes that's how we treat our bodies in stressful times. Eat breakfast. Eat often. Eat healthy, well-balanced meals. And stay hydrated.

Find time to quietly power down. Increasingly, research points to the value of short (10- to 15-minute) opportunities to quiet our minds and purposely relax our bodies and brains. In my teaching, I've had people tell me they'd never care to learn how to meditate or practice “mindfulness.” But some of these same people wait all year, craving the quiet moments and opportunities like sitting in a silent deer stand for hours at a time during hunting season while watching snow flurries dust the landscape. Or quietly working in the garden on a warm summer evening while basking in the glow of a sunset. Powering down can include a quiet walk in the woods, where you purposely pause to reflect on the things you are grateful for in life while you enjoy the sights, sounds and smells of nature. These actions help rebuild our brain's “thermostat” and capacity to throttle back chronic stress. A little bit of exercise has also been shown to increase the size of the parts of the brain that keep stress in check.

Take control in areas where possible.

There are some things you simply cannot control — the weather, global market conditions and others. Yet, research in both people and animals suggests that having some sense of control — where it is possible — is the most important stress fuel throttle! Work with trusted advisers, experts, friends and family members to look at options and develop plans. It's hard if chronic stress has partially shut down that front part of your

Continued on next page.