



Let's face it. Stress is inevitable. But what is not inevitable is our response to it, and how this impacts our heart and our overall health.

Imagine the following scenario. You are driving to work, and you are rear-ended. You jump out of your car, shaken, annoyed, and when you see your bashed-in bumper, your temper catches hold. What follows is an unhappy confrontation with the apologetic guilty party as you exchange phone numbers, driver's licenses and insurance information. Because you are running late, you finish up quickly, but your bad mood lasts all day.

Here is an alternative scenario involving the same car accident. When you are hit from behind, you do a self-check and realize you are uninjured. Relieved, you get out of your car and ensure that the guilty party is also all right and did not strike you because she was having a health crisis at the wheel. Your bashed-in bumper is upsetting but, you acknowledge, it could have been worse. As you exchange information with the woman, you accept her stricken apology as genuine because you have had a few close calls yourself and you can sympathize with the guilt she is clearly feeling. You finish up and drive to work, grateful that the damage is fixable and that nobody got hurt.

Clearly, these two scenarios represent different ways of thinking about and responding to the same potentially stress-inducing incident. In the former, stress and negativity get the upper hand; in the latter, increased objectivity and positivism improve an unfortunate situation. In both cases, unseen physiological effects are occurring in the body during these kinds of scenarios — and which approach do you think is healthier for the heart? You guessed it. Number two. Short term, the second type of reaction reduces the risk of a stress-induced cardiac event (heart attack, arrhythmia). Long-term, we are following a type of behavior that reduces the risk of high blood pressure and heart strain. So how do we cultivate this way of thinking, feeling and responding? Before we delve into the how's of stress reduction and the value of relaxing, let's discuss the whys.

Fight or Flight: Our Genetic Legacy

Powerful mechanisms such as the fight-or-flight response have evolved through time to allow the body to shift into “survival” mode so we can either fight back or escape a perceived threat. In times of stress, various hormones within the body are secreted to relay orders. In the musculoskeletal system, muscles tense up. The nervous system reconfigures to best preserve and utilize the body's energy stores. Focus is diverted away from areas that are not immediately essential, such as the digestive system, and is diverted toward the heart and brain where adrenaline and noradrenaline speed our reaction time, heart rate, blood pressure and blood volume pumped from the heart. The heart starts to pound, breathing quickens and becomes shallow, and we may start to sweat. It is no coincidence that these symptoms match those often found during a heart attack episode. That is why acute stress has short-term and long-term implications for cardiovascular health. Stress can also trigger anxiety attacks, which are sometimes mistaken for heart attacks.

As well, other stress hormones relay messages to boost sugar, triglyceride and cholesterol levels in the blood. The blood gets sticky in case we are injured and need to form clots so we are less likely to bleed to death. The immune system responds, ready to protect us. Over the short-term, this hormonal orchestra is designed to perform effectively. Prolonged stress, however, weakens these mechanisms, reducing immunity, causing systemic wear and tear and creating a host of physical, behavioral, emotional and cognitive symptoms. Although we are probably not trying to fight off dangerous predators like our ancestors might have been, these same stress responses can occur while we are stuck in traffic jams and conference calls.

Acute Stress and Cardiovascular Health

The tragedy of 9/11 presented researchers with an opportunity to study the impact of acute stress on the cardiovascular system. Almost 2,700 Americans who had completed a web-based assessment of acute stress prior to the terrorist attacks were reassessed one, two, and three years later. The physicians found that, even after adjusting for various factors, acute stress responses to 9/11 were associated with a 53 percent increased incidence of cardiovascular ailments, including hypertension and heart problems. These findings were reported in the Archives of General Psychiatry in 2008.

We are cramming our days full of activities and events. And regardless of what kind of stress we are under, self-imposed or otherwise — be it physical, mental, emotional or financial — our body perceives it in the same way. The brain categorizes all stress as deserving a fight-or-flight response and signals hormones to act. Over the course of a normal day, we are activating our stress response repeatedly, and this is where the problems lie.

Why We Need to Relax

We could probably all name someone (or dozens) who is a compulsive overachiever, who never seem to slow down and who claim they do not know how. We may even admire them, and silently wonder why we cannot seem to get our acts together like they have. Console yourself with this knowledge: over-activity and the compulsions behind it are not heart-healthy — in fact, they are not healthy, period. Nor are they effective long-term.

Initially, stress can enhance performance, but after a certain point, you deteriorate into mental fatigue and feel overwhelmed. Your work and mental, emotional, and physical health suffer. The stress can then lead to chest pain, arrhythmia, [high blood pressure](#), stomach problems, sleep disturbances, depression, anger, [burnout](#), overeating, undereating, drug or alcohol abuse, relationship conflicts, social withdrawal and much more. Stress permeates all aspects of life and is inescapable. The trick is to find a healthy balance that enhances good productivity yet includes regular relaxation.

By [training yourself to relax](#), you are allowing your body and mind a much-needed break from life's rigors. Physiologically, relaxing slows the breathing and heartbeat, and soothes the nervous system. Oxygen requirements decrease, blood pressure eases, the vessels dilate and blood flows easier throughout the body. If stress is the poison, relaxation is the antidote — one we should be embracing whole-heartedly. Relaxing also releases endorphins which

are natural mood lifters that induce a sense of well-being.

Combined with changes in diet, exercise and nutritional supplementation, stress reduction and management is a protective tool against heart disease and future cardiac events. Ironically, knowing we need to relax and allowing ourselves to relax are two very different things. True relaxation involves a passivity and patience that doesn't come easily to many of us. Have you personally "locked in" stress. Consider your body right now. How are you sitting? Focus on your body and identify the areas where you hold tension. Your neck and back, perhaps, from hunching over a computer all day? Your abdomen? Your jaw? Are you frowning, or smiling? Muscle actually has memory that can trigger mood (frowning vs. smiling) and induce physiological changes including heart rate and breathing. Hence, de-stressing involves calming the mind and body.