

# ACUTE AND CHRONIC STRESS

## How to Meet the Challenges

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Research has shown that prolonged emotional stress and anxiety can cause an emotional and mental drain on all of the body systems, and have a direct impact on immune function. Constant irritations and chronic ongoing stress, such as financial worries, the loss of a job, the loss of a family member, getting divorced, moving to a new city, a change in the health of a family member, a life changing injury, or other unresolved issues can drastically effect the body's recovery systems. It is much like carrying around heavy weights that you never ever get to put down. Eventually the body cannot keep up, and illness ensues. Long term chronic stress produces actual tissue changes and organ dysfunction, leading to many conditions, such as headaches, colitis, mononucleosis, nausea, heart attacks, sleep disorders, irritable bowel syndrome, inhibited immune resistance, psychosomatic illness, susceptibility to colds and flu, and many others. Yes, many imbalances occur in the body due to chronic unresolved stress, and repetitive stress episodes.

The effects of chronic stress are very different than the acute stress episodes (the life or death moments) that create extreme, but short term, reactions and then dissipate back to normal functioning. During the acute stress episode, the flight or fight mechanism is activated, which sets off a certain stress cycle: The brain perceives something is going on, so it releases ACTH (adrenocorticotrophic hormone) to stimulate the adrenals. Beta-Endorphins, our natural narcotics, are released to keep us from feeling pain. Prostaglandin—E1, a natural anti-inflammatory agent, is released to help us handle wounds we are about to sustain. Serotonin is released to speed up the ability of nerve cells to communicate. Our adrenal glands release Epinephrine and Cortisone, and prepare the body to pump more blood, and help the pancreas keep our blood sugar level in balance with the release of insulin. Then our sympathetic nervous system releases Norepinephrine, the liver releases stored blood sugar, the thyroid is stimulated, and our heart rate goes up. All of this happens almost simultaneously.

This response that prepares us for running or fighting engages the complete cardiovascular, baroreceptor, nervous, and endocrine system. And once the danger abates, everything settles down, the chemicals get processed through the liver and life usually goes on back to normal.

But, what happens if we experience almost the same extreme type of stress (not quite life or death, but enough to stimulate the same reactions to a lesser degree) on a daily basis - perhaps at work or while going through a divorce and child custody battle? The situation does not climax and is not resolved for a very long time? The chemistry produced then is not dissipated and this imbalance creates more and more stress on our bodies. Although the release of these chemicals can be life saving in an emergency situation, the chronic release of these can damage the immune system and reduce one's ability to fight infection and can even lead to more serious illnesses such as cancer. Prolonged stress creates excessive clotting, which can lead to , high blood pressure, stroke or heart attack. This same clotting can also create fibrin cocoons, which can shield cancer metastases from T-cells and other body defenders. Additionally, chronic stimulation of the thyroid can lead to deficiency, which contributes to fatigue, depression, hair loss and and weight gain.

Chronic release of Beta-Endorphins reduces our ability to deal with pain, even increasing the possibility of migraines and backache. The same is true of prostaglandins—they become less helpful as anti-inflammatories. Other effects of chronic stress and repeated flight or fight activations include constipation, diarrhea, hypoglycemia, pancreatic exhaustion.

As if these emotional stresses weren't enough, add to this the physical stresses our bodies have to endure, such as exposure to pollution, radiation, pesticides, chemicals, heavy metals, inhalants, and other toxins, and it is no mystery why so many are developing chronic illnesses that seem to have no apparent cause of cure.

Identifying and managing stress, supporting the immune system, and developing successful lifestyle and coping strategies are the most critical areas to address as we strive to improve our health and maintain homeostasis. If one is able to change their circumstances so that extreme chronic stress is not blanketing their life, this would be ideal. If circumstances are not changeable, then learning and implementing good coping skills is critical. Balancing the stress with joyful activities that release endorphins in the brain can help. What brings you joy? What makes you laugh and forget your troubles? Make sure to schedule time for these as often as possible to counteract the effects of chronic stress. In some cases, seeing a professional to help guide one through coping strategies is necessary, or to get help with the physical effects of stress.

In addition to this, regular exercise is absolutely one of THE BEST tools you can use to reduce stress. Other tools include spending time in nature, relaxing with some quiet time, turning off stimulating technology (such as cell phones, television, computers, etc.) will also help to give your nervous system some recovery time. Spending time at peace, and looking at the beautiful and positive areas of your life – staying focused on those – can help not only your mental/emotional state, but also your physical state. ♦

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