



A Union of Professionals

WORK SHOULDN'T HURT

The Health Consequences of Chronic Stress

Chronic stress is a known health risk for a range of psychological, behavioral, and medical disorders and diseases. Unions, employers and individuals can mitigate these disorders through preventive stress management and enhanced well-being. Too often, we think of stress as a “psychological” problem of an individual that can be controlled by will, but the [research](#) tells a different story.

High levels of stress are toxic and a danger to your health. A stressful work environment can contribute to problems such as headache, stomachache, sleep disturbances, short temper and difficulty concentrating.

Chronic stress can result in anxiety, insomnia, high blood pressure and a weakened immune system. It can also contribute to health conditions such as depression, obesity and heart disease.



Are you a person who:

- Has little or no control over the organization, content and/or pace of your work; and
- Feels that—over the long run—you have not been appropriately rewarded or recognized for your hard work and effort?

How Can Stress Cause Disease?

You don't experience anything in a vacuum. When you perceive that you are under enormous stress at work and are feeling overwhelmed, certain biological/hormonal reactions are triggered in your brain.

A part of your brain (hypothalamus) alerts the pituitary, which in turn sends a signal to your adrenal glands to secrete several substances, including cortisol.

At normal levels, cortisol performs vital tasks in the body, including maintenance of blood pressure and cardiovascular function, reduction of the immune system's inflammatory response, balancing the effects of insulin breaking down sugar for energy, and regulating the metabolism of proteins and fats.

Cortisol's most important job is to help the body respond to stress. However, when chronic stress causes too much cortisol secretion, the results can be disastrous.

Everyday signs of too much cortisol include:

- Rapid weight gain, especially around the middle;
- Mood disturbances—irritability, anger;
- High blood pressure; and
- Excessive fatigue.

Those with chronic stress and high levels of cortisol may be at risk of developing depression. The excess cortisol will not only cause depression but also destroy brain cells in the hippocampus that can impair the short-term or working memory.

If you answered yes to either or both questions, recent research indicates that you may be at high risk for developing [coronary heart disease and reduced immunity](#) (i.e., more colds, flu, etc.).

The **American Federation of Teachers** is a union of 1.7 million professionals that champions fairness; democracy; economic opportunity; and high-quality public education, healthcare and public services for our students, their families and our communities. We are committed to advancing these principles through community engagement, organizing, collective bargaining and political activism, and especially through the work our members do.

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Other work-related stressors associated with increased rates of disease include discrimination, bullying, monotony, social isolation or lack of support, job insecurity, and few promotional opportunities.

More health consequences

Powerful research studies indicate that chronic workplace stress leads to other serious health effects such as:

- High plasma fibrinogen levels—associated with excess coronary heart disease in high-demand and low-control jobs.
- Increased insulin resistance—a person secretes too much insulin, but it doesn't transport the glucose into the cells; insulin resistance is a precursor of adult onset diabetes.
- Blood fat or lipid disturbances with an increase in triglycerides.
- A reduction in immunity and therefore a greater risk of infections and/or inflammation.
- An increased risk of preeclampsia (a dangerous high blood pressure during pregnancy) for women employed in high-stress jobs—2.3 times the risk compared with nonworking women

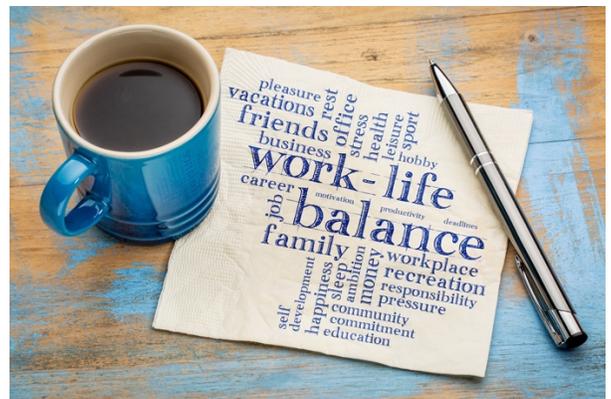
Evidence is mounting that stress increases blood levels of homocysteine, an amino acid now linked with elevated rates of heart disease and with dangerous changes in the arteries. In fact, high levels of homocysteine can damage small blood vessels in the brain, leading to the loss of important cognitive or problem-solving functions.

What action can an individual take?

True stress reduction depends on eliminating high-demand, low-control jobs or high-strain jobs, while taking individual action. Here's the latest research advice:

- **Get more sleep.** If you sleep fewer than eight hours a night, you may be building up a sleep deficit. Not enough sleep has been associated with high blood pressure and cortisol levels.
- **Lose a little weight.** At least two studies have found that if you lose as little as 10 pounds, cortisol levels go down (can't guarantee that stress will).
- **Get some exercise.** Regular exercise (30 minutes of moderate exercise four or five days a week) will reduce cortisol levels and blood pressure.

- **Find social support** at work and in your family. Research has found that people with large social networks succumb less often to work-related stress than isolated workers.
- **Map out alone time**, especially if you are a woman. Studies show that working women who are parents secrete much higher levels of cortisol day and night (regardless of their marital status) than women without children. Working mothers need time that belongs strictly to them.
- **Experiment with meditation** and other quiet contemplation. Meditation has been shown to reduce blood pressure levels.
- **Reduce noise levels** at work and at home. Studies have shown that high levels of noise can cause irritability and stress as well as raise cortisol levels.
- **Place yourself in situations where you feel more in control.** Get involved in the union, the PTA, church or other community organizations.



- **Find ways to have more fun and joy in your life.**
- **Make sure that you get 400 micrograms of folate (folic acid) every day** and plenty of vitamins B-6 and B-12. These B vitamins have been shown to significantly reduce circulating homocysteine levels. A Harvard University study found that nurses who consumed the most folate and vitamin B-6 over 14 years were 45 percent less likely to have a heart attack than those who consumed the least. High levels of folate are found in black-eyed peas, spinach, asparagus, lentils and chicken liver. Good sources of B-6 are bananas, plantains, and chicken and beef liver.
- **Try not to self-medicate with alcohol or drugs.** Alcohol, especially, has been shown to raise homocysteine and cortisol levels in heavy drinkers.
- For more information contact the health and safety team at 4healthandsafety@aft.org [May 2022]