STRESSED OUT?

Learn how the body responds to stress—and healthy ways to cope

**Your Body Under Pressure**

**Fast Fact:** The body’s main stress hormones are adrenaline, norepinephrine, and cortisol.

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
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<tr>
<td><strong>BRAIN:</strong></td>
<td>The body’s stress response starts when the brain’s hypothalamus (1) signals the pituitary gland (2). This gland then signals the release of the hormones that prepare the body to fight or escape.</td>
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<td><strong>HEART:</strong></td>
<td>Heart rate and blood pressure increase. This helps blood quickly deliver oxygen to power muscles.</td>
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<td><strong>LIVER:</strong></td>
<td>The liver releases glucose (blood sugar) into the bloodstream. This powers cells in the body.</td>
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<td><strong>LUNGS:</strong></td>
<td>Breathing rate increases, sending more oxygen to power muscles.</td>
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<td><strong>STOMACH/INTESTINES:</strong></td>
<td>Food digestion slows and energy is redirected to other parts of the body.</td>
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<tr>
<td><strong>MUSCLES:</strong></td>
<td>Muscles tense up to prepare the body for action.</td>
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**More Info:** For additional facts about health, visit [scholastic.com/headsup](http://scholastic.com/headsup) and [teens.drugabuse.gov](http://teens.drugabuse.gov).

Think of a time you were stressed. You may remember your heart racing, palms sweating, shoulders tensing up.

These reactions and feelings are part of the body’s natural response to stress. Once the brain identifies a threat, the body releases a flood of hormones that prepare it for the challenge.

Known as “fight or flight,” the stress response helps us survive. But it is also activated by events that aren’t life-threatening. This can include school and relationship pressures. It can even happen when you are over-connected to technology and social media. Some stress is helpful, like keeping you energized to study for a test. But constant stress can wear you down emotionally and physically, which can lead to serious health problems.
Chronic Stress

Ongoing, or chronic, stress does not allow the body’s stress hormones to return to normal levels. This can lead to health problems. Chronic stress can:

- Increase the risk of getting sick because stress can weaken your immune system
- Cause sleep problems because of increased energy
- Lead to injuries or headaches from constant muscle tension
- Increase the risk of anxiety and depression
- Cause problems with learning and memory
- Increase the risk for heart disease, obesity, and diabetes

Tips to Help You Cope

- MOVE YOUR BODY: Exercise creates “good stress” and helps you cope with mental stress.
- MEDITATE: Meditation and deep breathing can decrease blood pressure and improve mood.
- TAKE A TIME-OUT: Stepping away from social media and texting can help you relax.
- DO ONE THING AT A TIME: If you feel overwhelmed, reduce multitasking.
- GET SUPPORT: If you are stressed, ask for help from a trusted adult.

Stress and Misusing Drugs: Not a Good Mix

Some people think drugs can help reduce stress. But drugs can actually make the body’s stress response even stronger. Here are some examples:

- Stimulants increase heart rate, blood pressure, and feelings of anxiety. Stress also causes these effects. As a result, taking stimulants when stressed can make these symptoms worse.
- Alcohol may be calming at first. But frequent use can raise stress hormone levels. This increases irritability and anxiety.
- Both stress and drug use can make a person more impulsive and interfere with decision making. They can also change how the brain experiences pleasure. These effects increase the risk for drug use and for developing an addiction.

HAS YOUR MIND EVER GONE BLANK ON A TEST?
The stress hormone norepinephrine may temporarily interfere with brain circuits used to recall memories. If this happens to you, pause and take a deep breath to relax. This can help slow the hormone surge. You’ve got this.

From Scholastic and the scientists of the National Institute on Drug Abuse, National Institutes of Health, U.S. Department of Health and Human Services