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L-Theanine for Relaxation and Stress

Levels of stress and anxiety have reached epidemic proportions. For an increasing number of people, it is literally ruining their lives. Whatever the cause—a *hard day at the office*, *screaming kids*, *the commute home*, *the never ending list of things to do*—stress causes both emotional and physical problems as well as impairs our ability to enjoy life to the fullest.

As companies downsize and corporate competition intensifies, everyone is working longer hours. Technology may have eliminated many tedious, mind-numbing tasks, but it has extended work hours, and the pressure for instant response. Job insecurity and the threat of unemployment haunts many people. Add events such as divorce, the birth of a child, the death of a loved one, plus the daily pressures of balancing home and work, and its little wonder the figures for stress are so high.

For most of us, stress and anxiety have become an inescapable part of modern day living. It's estimated that up to 50 million Americans suffer from the effects of stress.¹ For some, anxiety and stress are persistent and overwhelming, and can interfere with daily life. A disorder called generalized anxiety disorder can cause its sufferers to worry constantly, always expect the worst to happen, and feel tense all of the time.² Sufferers can't just "snap out of it," because this disorder is caused by an imbalance of chemicals in the brain.²

But there's help out there to relieve stress and anxiety. In this issue of *Ask the Doctor*, we will talk about a *dietary supplement* that helps people relax and cope with stress, anxiety, tension, and occasional sleep difficulties.

But first, we need to discuss some background about stress, anxiety, and the side effects associated with antidepressant and anti-anxiety medications.

What is stress?

Stress is a psychological and physical response to the demands of daily life that exceed a person's ability to cope successfully. Stress is often characterized by fatigue, sleep disorders, irritability, and constant worrying. Depression often accompanies stress. The accumulated effects of stress may lead to more serious medical problems. Stress may be work-related or may stem from personal problems, such as divorce, family conflicts, or financial concerns. Often stress results from a combination of events.³

Why is stress bad for me? What does it do to my body?

Too much stress can actually damage your health. There is ample evidence that living a highly stressful lifestyle damages the heart, raises blood pressure, and can contribute to digestive problems. Not surprisingly, stress can also be damaging to the brain, even leading to premature brain cell aging.⁴⁻⁶

Most people are familiar with the body's dramatic response to an emergency. The heart pounds, the muscles contract, and the lungs expand; and while this is happening, we are capable of greater than normal strength and speed. This response is the body's way of rescuing itself when faced with an emergency. We don't have to think about it to make it happen. It's automatic.

The same can be said of a chronic stress response. Whether we're stuck in traffic, about to give a speech in front of a group, or sitting in the waiting room at a doctor's office, the human stress response happens automatically. The difference between the two is that the body's response in an emergency starts and resolves itself quickly. The response to being stuck in traffic may not.

In an emergency situation, the adrenal glands, located above the kidneys, secrete the hormone, cortisol, until the emergency passes. Then the body returns to its normal function.

However, chronic stress is more complex and can last longer. When our body is subjected to high levels of cortisol for an extended time, our health can be damaged. Studies have shown that increased cortisol production caused by long-term, chronic stress may damage the entire nervous system and suppress the immune system.⁴⁻⁶

The good news is that alterations in the central nervous system and the immune system can return to normal when stress is removed. The key is to learn how to deal with daily stress to allow the body to return to its normal state.⁴⁻⁶

Why do I have difficulty sleeping when I feel stressed out?

Most commonly, sleeplessness is the result of stress in our lives. In fact, sleep disturbances are one of the most serious symptoms of stress and can be difficult to control. We live in a fast-paced world. Sometimes the responsibilities in our lives cause so much stress that we are unable to relax enough to fall asleep or stay asleep.^{7,8}

Serious medical conditions can also disrupt sleep. Sleep disturbances are often associated with depression. In fact, 90% of people with depression and anxiety also experience sleeping difficulties.^{7,8}

HEALTH FACT:

Using an L-theanine supplement is a safe alternative because it will relieve anxiety and promote relaxation without causing the daytime sedation and grogginess that is associated with prescription medications on the market today.¹⁷

What are some conventional treatments for anxiety and stress?

Antidepressants and anti-anxiety medications are frequently used in combination with behavioral therapy to ease anxiety and stress. Antidepressants are among the most widely prescribed medications in the United States.⁹⁻¹²

The two major classes of antidepressants are selective serotonin reuptake inhibitors (SSRIs), and tricyclic antidepressants (TCAs). These medications work by inhibiting the re-uptake of neurotransmitters, such as serotonin, resulting in the accumulation of these

neurotransmitters. Brain chemicals such as serotonin are thought to be low in conditions such as anxiety and depression. Preventing their reuptake by the nerve cells essentially increases the amount of available chemical.⁹⁻¹²

Anti-anxiety medications include the benzodiazepines, which include the drug, alprazolam (Xanax®). Benzodiazepines can relieve symptoms within a short time. These medications belong to the group of medicines called central nervous system (CNS) depressants (medicines that slow down the nervous system).^{13,14}

What are some of the common side effects of antidepressants and anti-anxiety medications?

Antidepressant medication, such as the SSRIs and the TCAs, can help regulate the brain's neurotransmitters to help relieve the symptoms of depression and stress. However, these medications can cause a number of side effects, such as nausea, sedation, weight gain and sexual side effects (decreased libido, delayed orgasm, or erectile dysfunction).⁹⁻¹²

The side effects of anti-anxiety medication, such as benzodiazepines, include drowsiness, loss of coordination, fatigue, and mental confusion. These effects make it dangerous for people taking benzodiazepines to drive or operate some machinery. In addition, many anti-anxiety medications may be habit-forming, causing mental or physical dependence, especially when taken for a long time or in high doses. Benzodiazepines can cause seizures, if abruptly discontinued.^{13,14}

Are there any natural alternatives to antidepressants and anti-anxiety medications that could help promote relaxation?

Since ancient times, it has been said that drinking green tea brings relaxation. The substance that is responsible for this sense of relaxation is L-theanine.¹⁵

L-theanine has shown the ability to promote deep muscle relaxation and improve good quality sleep. Even though L-theanine is found in green tea, it does not contain caffeine. L-theanine is simply one of the amino acids in green tea.^{15,16}

L-theanine supplements are a natural alternative to promote relaxation. Since it does not cause sedation, it can be taken during the day to alleviate stress and anxiety.^{15,16}

How does L-theanine work to help you relax during stressful times?

Although L-theanine's mechanism of action has not been fully elucidated, current research has focused on L-theanine's effect on brain transmitters and brain waves. Scientists believe that L-theanine supports the balance of various neurotransmitters in the brain.¹⁶ In a laboratory study, researchers found that L-theanine is able to cross the blood-brain barrier to support the activity of certain neurotransmitters in the brain.^{15,16}

In a recent study, the brain activity of 50 volunteers was measured after the oral administration of 50-200 mg of L-theanine. L-theanine promoted the generation of alpha-brain waves, considered to be an index of relaxation, in the volunteers. This study concluded that one way in which L-theanine promotes relaxation in humans is by increasing alpha brain waves.¹⁵

Does L-theanine have any other benefits for our bodies besides promoting relaxation?

Yes, L-theanine has been shown to help the regulation of blood pressure. The same neurotransmitters that help us relax also regulate blood pressure in our bodies. When L-theanine is absorbed in our bodies, it results in slightly lowered blood pressure.¹⁵

Laboratory studies have demonstrated that L-theanine affects both the nervous system and the cardiovascular system. Thus, L-theanine's calming effect on our mental state is augmented by lowering blood pressure as well.¹⁵ However, the blood pressure was never lowered to abnormally low levels.





Does L-theanine have the same type of side effects as prescription antidepressants and anti-anxiety medications?

L-theanine has been extensively consumed in tea without any side effects.¹⁷ Using an L-theanine supplement is a safe alternative because it will relieve anxiety and promote relaxation without causing the daytime sedation and grogginess that is associated with prescription medications on the market today.¹⁷

However, individuals with chronically high stress levels and poor sleep patterns may feel slightly sleepy when first using an L-theanine supplement. This effect occurs, not because the L-theanine makes them sleepy, but because they are finally relaxed and able to listen to their bodies' demands for rest. After catching up on a few nights' sleep, they should be able to use L-theanine without feeling sleepy.

Conclusion

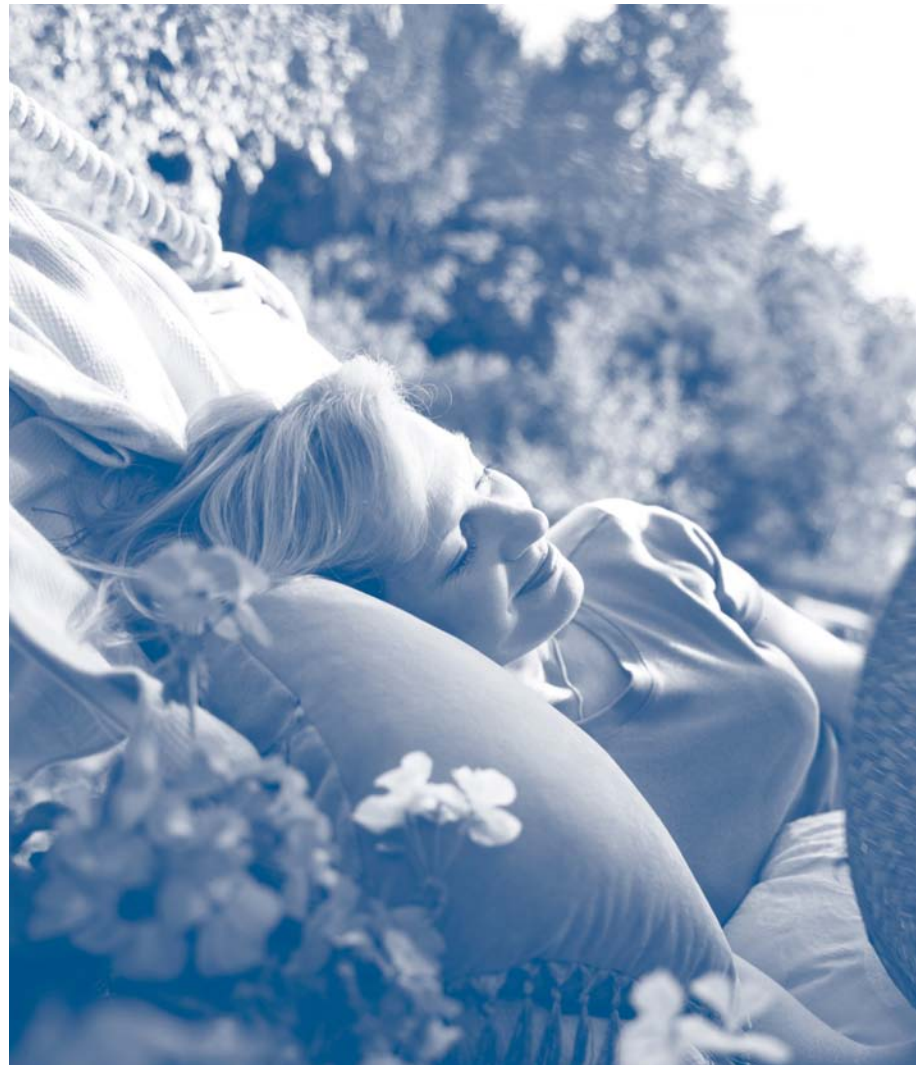
In today's fast-paced world, we need to manage stress in our lives. Stress management is a matter of mental and physical survival—stress cripples lives, causes illness, and even kills.

Of course, there are other things you can do to reduce anxiety and stress as well. Setting priorities, concentrating on activities that give joy, taking care of our health and relationships, and simplifying our lives are other ways to improve emotional well-being.

L-theanine as a natural support in your busy life is an important tool to overcoming stress and anxiety. It can be used daily or just when you need a little extra help to relax. By being able to relax, leaving your stress and anxiety behind, you will be able to face each day's challenges with renewed vigor and confidence!

Lifestyle tips for managing stress and anxiety

- Avoid alcohol, caffeine, sugar, and artificial stimulants.
- Practice slow, deep breathing to calm your nerves.
- Simplify your life—prioritize tasks and tackle the most important ones first.
- Concentrate on activities that give you joy.
- Supplement your diet with L-theanine and a quality multiple vitamin and mineral supplement specific to your age and gender.
- Strive to eat healthy foods, including 5 servings of fruit and vegetables per day.



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