Understanding the Link Between Stress and Depression

by ANGELA FINLAY

How Stress Contributes to Depression

Depression is a mysterious disease, and that makes treatment particularly difficult. However, one thing is understood: in the complicated web of variables and interactions that create the conditions for clinical depression, stress plays a starring role.

Although genes, environment, and other difficult-to-control factors will influence your depression risk, you do have the power to limit the stress that's feeding your mental suffering. Both positive and negative events can bring on sudden stress, or it can build up gradually, with daily trials and overwhelming obligations of a busy life. In any case, you must first understand your susceptibility to stress, and then manage it in a way that's tailored to your personality and lifestyle.

The Biological Connection Between Stress and Depression

Some stress is helpful, and small bouts of it can actually keep you motivated and energized, but long-lasting stress is cause for concern. Severe and prolonged stress can come from a job loss, chronic illness, grief, or a major upheaval in your environment. In some people, this stress response continues even after the stressful event has passed, and the body begins to malfunction:

- **Chronic stress leads to a chemical imbalance**. Many chemicals are responsible for a healthy emotional balance. Dopamine and serotonin are necessary to regulate processes like sleep and mood, but sustained stress will chip away at these important neurotransmitters. An ongoing stress response also means a consistent release of cortisol, a stress hormone that breaks down tissue. Experts suspect that too much cortisol can directly induce depression.
- **Stress can induce chronic illness**. Many studies have shown that chronic stress is linked to hundreds of diseases, from cancer and diabetes to IBS and fibromyalgia. Over 30 percent of people living with a chronic medical condition will experience symptoms of depression, and some will become clinically depressed. Physical changes brought on by the illness may trigger the depression, or it may stem from a psychological reaction to the stress of the illness.
- **Stress shrinks the hippocampus.** Studies have shown that stress slows the production of new brain cells, especially in the hippocampus – the center that impacts depression the most (along with the amygdala and the thalamus). One study published in *The Journal of Neuroscience* followed 24 women with a history of depression, and found that the hippocampus was 9 percent to 13 percent smaller in those that were currently depressed than those who were not.

A healthy brain is able to rebuild cells with a process known as neurogenesis, but a brain under stress can't undergo this important process of regeneration. Ultimately, the chemical changes brought on by chronic stress will interfere with your brain's function, and that can be difficult to reverse without a creative approach to stress management.

How Stress Impacts Symptoms and Treatment

Stress and depression tend to aggravate each other: stress is more difficult to handle when you're depressed, and the symptoms of depression can make mental and physical stress more intense. Moreover, research suggests that certain environments and personality traits can make matters worse:

Unpredictable Stress Inflates Symptoms

A study out of the Aarhus University Hospital in Denmark has offered some surprising insight into how sweeping, unpredictable changes in routine can lead to measurable changes in brain function.

Working with a selection of rats, researchers made sudden and drastic changes to their environment – adding water to make the floor of the cage slippery, changing overhead lighting from soft to harsh, or tilting the angle of the cage to 45 degrees.

They found that these stressful situations affected the rats deeply; they began to show many of the same symptoms of depression as humans (lower pain threshold, poor sleep patterns, reduced memory, and trouble learning).

Neurotic Tendencies Increase Stress

Evidence suggests that people who tend to be more neurotic – that is, more anxious, worrying and envious – also tend to experience more stress, and more depression.

Another problem with neurosis is that it can interfere with a good treatment plan: the more you worry about problems or negative possibilities, the more obstacles you create for yourself, and the greater your chances of falling off track.

How to Deal With Stress and Depression

In order to really get at the root of your problem, you may have to change your attitude and try a few therapeutic approaches to modify your stress response:

- **Learn to relax well**. Sitting in a warm bath may work for some people, but maybe not for you. Try not to force yourself into any traditional relaxation method, but rather find one that works well for you without having to put forth much effort. Yoga and meditation can be extremely helpful, but rhythmic activity (like knitting, painting, or even jogging) can have a similar calming, centering effect.
- **Keep healthy relationships.** Social interaction is extremely important to ward off depression, especially when your stress is at a boiling point or a chronic illness is wearing you down. But the type of social interaction will make a big difference: positive, empathetic people can help you through your toughest days, but negative sentiments or judgemental relations can drive you down a lot deeper. If you don't have enough positive support from friends and family, join a support group – you will enjoy immediate and far-reaching benefits from the connections you make.
- **Stay active in mind and body.** Exercise produces endorphins, which combat stress and elevate mood. Regular activity is vital to improve your physical and mental state, but you also need to train your brain to think more productively. Depression can hamper your memory and problem-solving skills, but cognitive behavioral therapy (CBT) techniques will keep your thoughts positive, and bring remarkable physical benefits.

The Takeaway

Remember to be proactive rather than reactive. Making big changes when you're struggling through deep depression can be a tall order, so do yourself a favor and take the opportunity to reduce your stresses when you're feeling more stable.

Most people have good days and bad (although the difference can be minimal). Try to take advantage of the good days – it will improve your chances of taking control of your stress and depression.