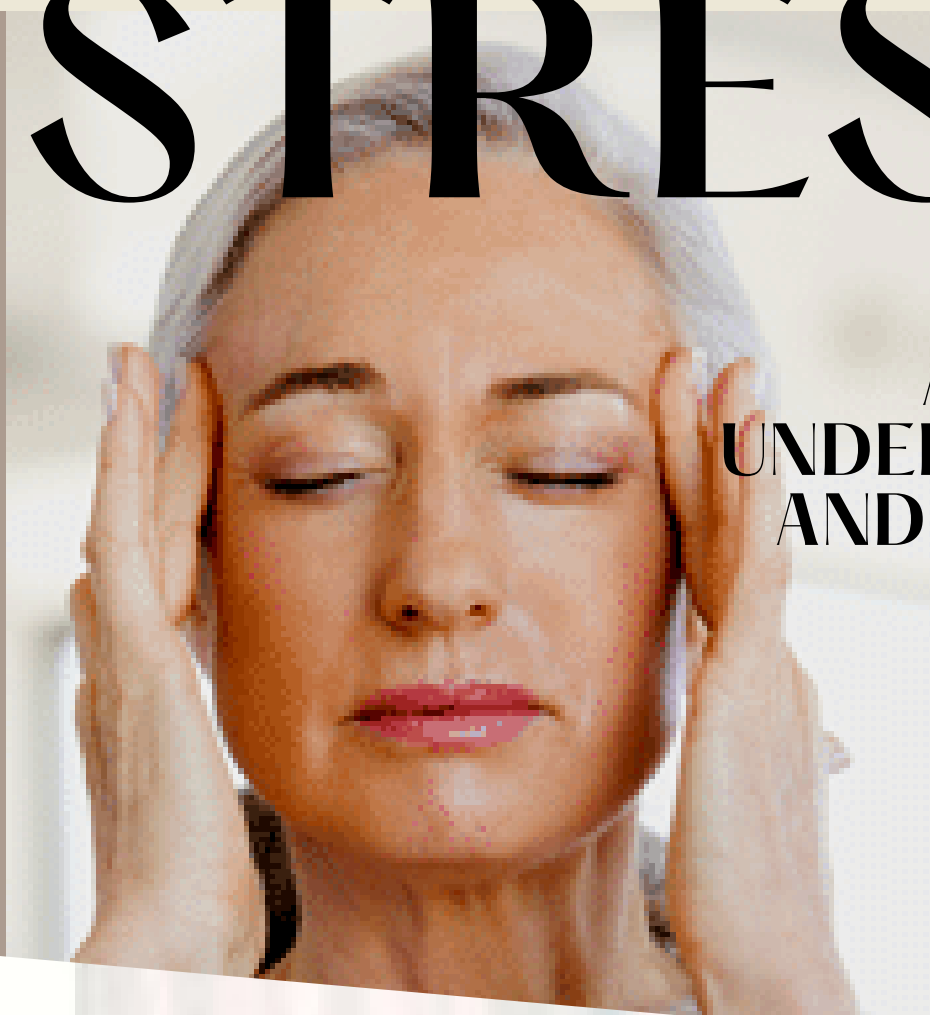


THE MANSFIELD AREA CHAMBER OF COMMERCE

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# STRESS



**A GUIDE TO  
UNDERSTANDING  
AND MANAGING  
STRESS  
THROUGH  
EXERCISE**

**WHAT  
DOES  
STRESS  
LOOK  
LIKE?**



Everyone experiences stress but the difference is how they manage it or don't manage it can make all the difference.

### WHAT IS STRESS?

Stress is defined as the physical and emotional state we experience when there is a mismatch between the demands upon us and our perceived ability to cope with the demands.



Stress is also our bodies way of creating energy when we are faced with a real or perceived danger. In some situations, stress can help our bodies react to emergencies with more strength and efficiency. Unfortunately, our bodies can't always tell when we are in an emergency or not. We may experience a stress response to something that is not an actual threat to our survival.

One example to demonstrate the difference between an actual threat and a perceived threat is the analogy of the zebra and the lion. Imagine you are a zebra, grazing on the green grass of the Savanna Desert when all of a sudden, a lion charges after you. Your response is to run as fast as you can to safety. Your brain goes into something known as "fight or flight" as an automatic physiological action. Your body releases hormones like adrenaline and epinephrine which lead to changes like increased heart rate and respiration. You get sweaty, your heart starts to race, the blood is pumping faster through your veins, your pupils dilate so you can see better, you breath heavier and faster, your liver releases more glucose (sugar) for energy. The body takes over so you can get to safety. If the lion closes in, you are going to kick and buck as hard as you can to protect yourself. Let's assume this time you have ample enough speed, and the lion gives up and walks away. You, the zebra, go back to grazing happily on the grass, hanging out with your other fellow zebras, living to enjoy another beautiful day on the Savanna. All physiological functions return to normal, and the stress response diminished.



What the zebra experienced is an actual threat or danger that requires the body to take action to survive. What people experience is the exact same physiological response only without the same physical release the body needs to get back to a normal state.

Stress can come from a multitude of sources. Often, it's not an actual event but rather something in our mind. It could be a worried, feeling like you don't have control over the outcome of a situation, overwhelmed by responsibilities, changes in your life good and not so good. The question really isn't "are you going to experience stress" the question is "how are you going to manage it in a healthy way?"

## TYPES OF STRESS

**Acute Stress:** This is short-term stress that goes away quickly. You feel it when you slam on the brakes, have a fight with your partner, need to meet a deadline, or even running late to an appointment. It can also occur when you do something new or exciting. All people have acute stress at one time or another.

**Chronic Stress:** This is stress that lasts for a longer period of time. You may have chronic stress if you have money problems, an unhappy marriage, or trouble at work. Any type of stress that goes on for weeks or months is chronic stress. You can become so used to chronic stress that you don't realize it is a problem. If you don't find ways to manage stress it may lead to health problems.

**Eustress:** This is beneficial stress. This can be the excitement of a roller coaster ride, buying a house, starting a new job, travel and exercise. **This type of stress is important to have in our lives. It is what keeps us balanced.**

## STRESS AND THE BODY

It's helpful to understand how the body responds to stress. As explained by psychologist Daniel Kahneman, our brain has two modes: fast and slow. To put it very simply, the fast mode tends to use the very quick, instinctive, and emotional side of the brain and the slow mode, tends to be the explorative, more deliberate and conscious side of the brain. When we're stressed, we tend to operate in fast mode; we can be snappy, impatient and automatic in our behavior. When we're calm, we have the ability to make calculated, considered decisions and are able to behave with better emotional regulation.

Scientists have also discovered that chronic stress can shorten our telomeres (a cell structure which affects how and at what rate we age). The length of our telomeres is what dictates how old a person looks and feels. When our telomeres get too short, cells malfunction and lose their ability to divide, meaning that our tissue can no longer renew itself. The more stressed we feel, the shorter our telomeres get and the quicker we age.



## PHYSICAL MOVEMENT

We've already learnt that when you feel stressed, your body releases cortisol. The best way to diffuse the cortisol is to physically move the body. If you have the luxury, go to the gym, for a run or take a yoga class. If not a brisk walk around the block will do the trick. When you are exercising or walking, try to keep the mind focused on the physical sensations of moving the body (for example, the feet hitting the ground during a run), your surroundings (what can you notice about the area that you haven't noticed before), the temperature of the air and the sounds you can hear. This will also help clear the mind, so you return to your desk feeling calm and refreshed.

## EXERCISE, THE BRAIN AND THE BODY

Regular exercise can boost **Serotonin** in the brain. Serotonin is a chemical messenger that's believed to act as a mood stabilizer. It's said to help produce healthy sleeping patterns as well as boost your mood. Research shows that serotonin levels can influence mood and behavior, and the chemical is commonly linked to feeling good and living longer.

Like serotonin, **dopamine** plays a role in mood and can be boosted with exercise. Dopamine allows nerve cells to pass messages to each other and help you feel pleasure, satisfaction and motivation.

Physical activity also results in the release of **endorphins**, also known as happy hormones, which reduce pain and inflammation. Endorphins also trigger a positive feeling in the body, like that of morphine. For example, the feeling that follows a run or workout is often described as "euphoric." That feeling, known as a "runner's high," can be accompanied by a positive and energizing outlook on life.

## RESILIENCY AND STRESS

On days when people exercise, stressful things take less of a toll on their well-being. You are more resilient because of how movement makes you feel about yourself and your capacity to handle challenges. Not only that, but regular exercise also changes your brain over time and maintains brain health. Whether it's chronic stress or acute stress your body is equipped to be more resilient. The result is that people feel more motivated and are better able to experience joy and happiness in everyday life. There are also changes in the systems of the brain that help regulate emotions and keep stress in check. So, after weeks of regular activity, you've built a more resilient brain that will help you keep calm in a crisis."

### Importance of Exercise

- Higher energy levels
- Improve body resistance to disease
- Improve cardiovascular and respiratory fitness
- Enhance self-esteem
- Regulate sleep patterns
- Improve concentration
- Increase strength
- Increase overall positive attitude and outlook
- Help modify feeling of sadness and anger

## CONCLUSION

Exercise doesn't have to be hard. Moving your body in any way, with any degree of intensity, can do it. That said, many of the resulting benefits are amplified by intensity. You will get a bigger release of these chemicals if you get your heart rate up on a regular basis.

Stress is not all bad; we need a small amount of stress to motivate and drive us, but too much can be detrimental to both our physical and mental health.

