

Stress: A Misunderstood Torment

What is Stress?

Fear, insecurity and stress have plagued us all at some point. Yet stress is poorly understood by most of us. What is stress exactly, why do we experience it so frequently and most importantly how can we alleviate some of the stress in our lives?

Stress has a variety of facets and can be physical or psychological in nature. We all experience and express stress differently due to the simple fact that stress is not so much related to what has happened to you but how you have reacted to it. Although it can lead to disease, stress itself is not a disease but a highly evolved mechanism which allows us to access our resources and energy in order to improve our ability to react to a threat. Unfortunately, this mechanism has lost some of its relevance because today's stressors have little to do with the stress primitive men would have faced. Whereas corporeal threats would have been common

for our ancestors, most stresses today are related to demands and difficulties which are not physical in nature. In our modern work environment, the hormones released during the stress response often end up being detrimental. Indeed, the short lived response to stress known as the "fight or flight response" provides a quick burst of energy and heightened senses, whereas the chronic stress we experience today can have negative repercussions, eventually leading to impaired cognitive performance and metabolic disturbances such as hypertension, ineffective immunity and slower healing.



Figure 1. The types of stress we face now are much different than what our ancient ancestors would have faced. Today's stresses can lead to chronic stress and negative consequences on health.

Table 1: The beneficial and detrimental effects of stress on the body

Beneficial effect	Detrimental effect
Improves short term performance	Insomnia and irritability
Heightens senses in the immediate	Weakens the immune system
Promotes motivation and positive changes	Linked to metabolic syndrome, hypertension, heart disease and type 2 diabetes
Improves chances of survival in a life threatening situation	Elevated cortisol can lead to osteoporosis
	Promotes weight gain
	Emotional disorders and possible addiction

Stress can also be seen as the inability to cope. The area of your life when you feel the least control is probably where you experience the most stress. In North America, the two most common stressors are finances and work. Other common stressors include family life, personal health and other personal concerns. Your personality also affects your stress level. For example, pessimists, perfectionists and over-achievers tend to experience higher levels of stress. Negative thought patterns also increase stress levels.

The Negative Effects of Stress

The adverse health effects associated with chronic stress are significant and widespread. Stress is not only related to irritability and emotional disorders, it increases the risk of developing metabolic syndrome, a weaker immune system, hypertension, osteoporosis, weight gain, diabetes and heart disease. Stress also leads individuals to poor dietary and lifestyle choices. The reason is simple; eating has a calming effect. Unfortunately this can predispose individuals to “emotional eating”, a situation where food is unconsciously used as a way to suppress negative emotions. Regrettably, emotional eating usually leads to poor food choices. This was clearly shown in a study where the diet of employees in a busy department store was monitored. When stressed, the employees lost restraint and had an abnormally increased appetite. This led them to poor food choices and an increased consumption of saturated fat and glucose.¹ It appears that we naturally seek high caloric foods when stressed because our demands for energy increase when we face adversity. It is therefore important to adopt healthy strategies to help deal with stress.

Coping with Stress

A number of stress reduction methods and coping strategies are available. A key component of these strategies is developing a realization that you are in control of your life. Given that we feel stress when we are unable to cope, reintroducing control is usually the first step in better stress management. Identifying the sources of stress in your life and taking charge of your thoughts, schedule and environment is essential to meet new challenges. If you are struggling with stress, you should look at your current coping strategies and find healthier ways to deal with stress. Healthy ways to deal with stress include reducing your responsibilities and daily tasks, limiting the stress in your environment, focusing on the positive in your life and establishing a strong social support network.

Several medications can also be used for stress. They typically induce relaxation through their effect on the nervous system. Benzodiazepines are an old favorite when it comes to the treatment of insomnia, anxiety and stress. Their mechanism of action is simple; they enhance the effect of the neurotransmitter gamma-aminobutyric acid also known as GABA. Given that GABA is the chief inhibitory neurotransmitter in our nervous system this leads to sedative, anti-anxiety and muscle relaxant activity. Although very effective, benzodiazepines are not recommended for long term use as they tend to cause tolerance, dependence and withdrawal symptoms when the therapy is discontinued. However, several natural options are available for the treatment of stress and insomnia.

Stress by the numbers:⁶

- 43% of all adults are negatively affected by stress
- 25% of Americans turn to food to alleviate stress
- 31% of women are emotional eaters versus 19% of men
- 27% of people very concerned with stress smoke, whereas only 19% of people who are not concerned about stress smoke
- 36% of stressed individuals did not exercise last week whereas 73% of people not concerned with stress exercise weekly
- 59% of stressed individuals are feeling nervous, sad or tired
- 56% of stressed individuals report difficulty sleeping
- 55% of stressed individuals report lack of interest or energy

The natural approaches used to relieve stress usually focus on two areas: ingredients which are sedative in nature and adaptogens. Adaptogens are typically natural herbs which improve our ability to deal with stress, anxiety and fatigue. Adaptogens help to maintain energy production and encourage the Resistance Stage (see page 4 and 5: The Stress Response) when dealing with stress. Common adaptogens include licorice, rhodiola, ashwagandha and eleutherococcus senticosus. Several research studies have demonstrated the ability of such plants to alleviate the psychological and physical impact of

stress. For example, in one trial performed on military cadets, rhodiola was shown to have a pronounced anti-fatigue effect.² Other trials have demonstrated better athletic performance and improved immunity with eleutherococcus senticosus supplementation.³

Sedatives, on the other hand, calm the nervous system. Similar to their prescribed counterparts, natural sedatives also tend to work on the GABA receptors. Natural ingredients that have been shown to calm the nervous system include theanine, GABA, 5-HTP and several herbs such as valerian or passionflower. A number of research studies have clearly shown the benefits and calming action of these ingredients. For instance, theanine was shown to be linked to a state of relaxed wakefulness in anxious individuals 60 minutes after taking the supplement.⁴

The problems associated with stress are far reaching and affects most of us on an ongoing basis. Stress depletes our resources, damages our health and lessens our quality of life. Several proven techniques and dietary supplements are available to minimize the burden of stress in our lives. It is in everyone's interest to develop better strategies to deal with stress because as Hans Selye, the Canadian researcher known as the

father of stress, has said: "Every stress leaves an indelible scar, and the organism pays for its survival after a stressful situation by becoming a little older".

References

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A Note on Driving: Why Driving is Stressful?

Driving is a high risk and unpredictable activity. There are frequent dangerous events such as near misses which can be frightening and can lead to irrational thoughts. Several stressors have been associated with driving and include:⁵

- **Immobility-** which leads to muscular tension and discomfort
- **Lack of control-** traffic is highly unpredictable and variable. No matter how you drive, you cannot control congested traffic which leads to frustration and stress
- **Danger-** incidents and danger are common which leads to stress, fear and even rage
- **Territoriality-** drivers will often feel insulted or invaded which leads to a hostile mental state that is difficult to contain
- **Multi-tasking-** diversions like eating or talking on the phone increase stress by dividing attention and reducing alertness
- **Unpredictability-** driving is dangerous with the road conditions and weather also adding an element of uncertainty.



A Natural Solution to Promote Restful Sleep

