Week 10 Notes  
Stress and Stress Management

Stress can be defined as any type of change that causes physical, emotional or psychological strain. However, not all types of stress are harmful or even negative. There are a few different types of stress that we encounter:

* [**Eustress**](http://stress.about.com/od/stressmanagementglossary/g/Eustress.htm), a type of stress that is fun and exciting, and keeps us vital (e.g. skiing down a slope or racing to meet a deadline)
* [**Acute Stress**](http://stress.about.com/od/stressmanagementglossary/g/accutestress.htm), a very short-term type of stress that can either be positive (eustress) or more distressing (what we normally think of when we think of ‘stress') ; this is the type of stress we most often encounter in day-to-day life (e.g. skiing down said slope or dealing with road rage)
* **Episodic Acute Stress**, where acute stress seems to run rampant and be a way of life, creating a life of relative chaos (e.g. the type of stress that coined the terms ‘drama queen’ and ‘absent-minded professor’)
* [**Chronic Stress**](http://stress.about.com/od/stressmanagementglossary/g/Chronicstress.htm), the type of stress that seems never-ending and inescapable, like the stress of a bad marriage or an extremely taxing job (this type of stress can lead to [burnout](http://stress.about.com/od/stressmanagementglossary/g/Chronicstress.htm))

**Stress** -- In physiological terms, is a harmful (or potentially harmful) stimulus. Stress can be comprised in an immense number of situations, including physical trauma, prolonged exposure to cold, prolonged heavy exercise, infection, shock, decreased oxygen supply, sleep deprivation, pain, fright, and other emotional stresses. The body’s response is the fight-or-flight response which helps the body perform physical activity and respond to injury.

Stress can occur at all levels of life. There are nutritional, physical, emotional, mental, psychological, and spiritual stress factors. Even exercise is a type of physical stress. Anxiety, fear, depression, perfectionism, grief, and frustration are stressful.

Stress, especially chronic stress taxes your heart, scrambles your brain and sabotages your immune system from working like the national guard to protect your body against infection and cancer. even stressful thoughts can deprive your tissue of oxygen and the necessary chemicals to keep your hormones in balance.

Unfortunately, in our high stress society, we put ourselves through disaster training several times a day, which triggers these hormones to grab high-octane fat and quick burning glucose for energy to supply our brain, heart and muscles. And with that comes the necessity to store more fat. There’s no question that cortisol increases fat deposition in one place, the worst place of all...the belly.

Long term stress not only causes weight gain but it does a number on your immune system. You become susceptible to colds and flus and feel just plain tired. Wounds take longer to heal because cortisol prevents the normal buildup of killer white cells in the body.

Whether the stress is physical or emotional, the response is the same. The adrenal cortex increases secretion of the hormone **Cortisol**, and the activity of the sympathetic nervous system is increased, resulting in increased **epinephrine** secretion from the adrenal medulla. Other hormones are also released during stress, and insulin production is usually decreased.

Cortisol is an important hormone in the body, secreted by the adrenal glands and involved in the following functions and more:

* Proper glucose metabolism
* Regulation of blood pressure
* Insulin release for blood sugar maintenance
* Immune function
* Inflammatory response

Small increases of cortisol have some positive effects:

* A quick burst of energy for survival reasons
* Heightened memory functions
* A burst of increased immunity
* Lower sensitivity to pain
* Helps maintain homeostasis in the body
* Decreased muscle fatigue
* Increased blood flow to the muscles
* Increased fat break down
* Increased cardiac output/more oxygen output(higher heart rate and faster breathing)
* Greater ability of the blood to clot

Higher and more prolonged levels of cortisol in the bloodstream (like those associated with chronic stress) have been shown to have negative effects, such as:

* Impaired cognitive performance
* Suppressed thyroid function
* Blood sugar imbalances such as hyperglycemia
* Decreased bone density
* Decrease in muscle tissue
* Higher [blood pressure](http://stress.about.com/od/bloodpressurestroke/)
* Lowered [immunity](http://stress.about.com/od/stressandimmunity/) and inflammatory responses in the body, slowed wound healing, and other health consequences
* Increased abdominal fat, which is associated with a greater amount of health problems than fat deposited in other areas of the body. Some of the health problems associated with increased stomach fat are [heart attacks](http://stress.about.com/od/heartdisease/), [strokes](http://stress.about.com/od/bloodpressurestroke/), the development of [metabolic syndrome](http://www.americanheart.org/presenter.jhtml?identifier=4756), higher levels of “bad” cholesterol (LDL) and lower levels of “good” cholesterol (HDL), which can lead to other health problems!

**General Adaptation Syndrome (Stages of Stress)**

1. **Alarm** – fight or flight/Adrenaline. When a stressor is identified, the body’s response is a state of alarm. During this stage, adrenaline is produced to bring about the fight or flight response. Cortisol is also produced during this phase.
2. **Adapt (resist)** – If the stressor persists, the body needs to cope with it. The body tries to resist and adapt the strains and demands, the body can’t keep it up, so it’s resources are gradually depleted.
3. **Exhaustion** – Body is depleted of resources to combat stress. Body eventually hits a wall and does not function normally. The autonomic nervous system symptoms may reappear (sweating, raised heart rate). If stage three is extended damage can be done to the adrenal gland and the immune system gets exhausted. Chronic fatigue syndrome and adrenal syndrome may occur which make you prone to health issues such as ulcers, depression, diabetes, cardiovascular disease, anxiety, cardiovascular and digestive system problems.

**How do you know if you’re stressed?**

Mood swings, depressed, cry easily, altered daily behaviors, picking up abnormal habits, scattered thinking, and irregular sleep patterns. People may realize they have a lot of stress but they may not recognize stress causes these symptoms.

Symptoms of Stress

* depression
* diabetes
* hair loss
* heart disease
* hyperthyroidism
* obesity
* obsessive-compulsive or anxiety disorder
* sexual dysfunction
* tooth and gum disease
* ulcers
* cancer

**Four A’s to Manage Stress**

**Avoid** **the stressor**– Identify the stressor (sense of “out of control” with everything we have to do. Time management, organizational skills, and schedule/list. Learn to say no because a lot of our stressors we bring on ourselves. We can eliminate a lot of our stressors by “letting them go”. Pick your battles.

**Alter the Stressor** – A stressor you can’t avoid. Compromise, delegate, get help, give choices. Alter your response w/ deep breathing.

**Adapt to the Stressor** – Reframe the stressor, acquiesce to stressor, looking at the big picture (is it really important in the long run?)

**Accept the Stressor** – Venting to friends, thinking positively. Find a positive spin and reframe it.