

Stress

In 1915, Dr. Walter Cannon introduced the well-studied physiological “*Fight-or-Flight*” response that occurs when the brain perceives a danger or threat. The “fight-or-flight” response is an



inborn response of the nervous system. The moment your brain perceives danger, your **Sympathetic Nervous System (SNS)** directs the following responses in your body to prepare to fight or flee the threat:

- Increased heart rate and blood pressure
- Increased respiration (shallow and fast)
- Increased blood flow to the muscles
- Release of adrenaline & other stress hormones
- Shut down of cellular repair to direct resources toward the threat
- Dilates the pupils (for improved visual scanning of the environment for threats)
- Increases sweating to cool the body
- Releases glucose (spike in blood sugar) to fuel the muscles

Cognitive function (thinking) is narrowed to focus on signals in direct association to the perceived threat. Your total mental function becomes like tunnel vision—seeing only the threat. Your thinking is slammed into reaction mode. You lose the ability to consider or think through better long-term alternatives.

The important thing to realize about this natural response is that *you perceive things differently* when your SNS is activated. Because your mind and body are in full “protection mode”, you perceive many more things in your environment as potential threats, thus reactivating the SNS!

In summary, when you perceive a threat (real or not) you:

1. **Lose full use of your cognitive resources (“dumb-down”)**
2. **Blood, glucose and adrenaline go to the muscles (you feel tired/hungry all the time)**
3. **Your immune system slows down (you get sick easily)**
4. **You look for other associated threats (come at life from a negative perspective—looking for problems)**

After the threat is gone, your body has a system for recovery. Your **Parasympathetic Nervous System (PNS)** is your “repair and recover” system. It works to directly counterbalance the SNS. Everything the SNS does, the PNS does the opposite. It turns the fire alarm off and returns the body to its restorative functioning and allows the body to heal, rest, and grow.

Purpose of the Fight-or-Flight response

The reason we humans and animals have this inborn “fight-or-flight” response is to protect our lives. It is our “fire alarm” that automatically summons all our resources for one thing—survival. This works perfectly in the animal world but not so well with people. Our superior brains have the ability to attach emotions to memories and to think about things that do not exist or that happened 5 years ago. These things can and do inadvertently turn on our natural fire alarm! We have no mechanism that turns off this stress response when we think about a plane crash on TV or an embarrassing event that happened to us at a meeting yesterday. Unlike animals, we humans can turn on the fight-or-flight response without the need for a REAL physical threat—we can just think about one and set-off this powerful response.

Stress causes more stress

The fight-or-flight or stress response brings more stress and can grow in sensitivity because one of the effects of this response is to look for more threats. Animals just look for threats in their immediate physical environment. People look for threats that *could* happen and *perceive* threats based on assumptions. For example, a deer runs away from a wolf and within minutes after successfully escaping an actual life or death situation, the deer is comfortably grazing grass or laying down for a rest. Animals have very short memories in this regard. What would you and I be doing? Looking for more wolves or talking to our friends about how we just got chased by a wolf and relive the event in our imagination over and over. After talking about it and reliving it enough, some of us might become too afraid to go for a walk in any wooded area. We might trigger the stress response again just seeing woods or any dog that resembled the wolf we encountered. This never happens to animals.

Our “superior” brains are able to store memories and place special emphasis on negative memories because our brain is a protective mechanism—that’s its main job! Our brains



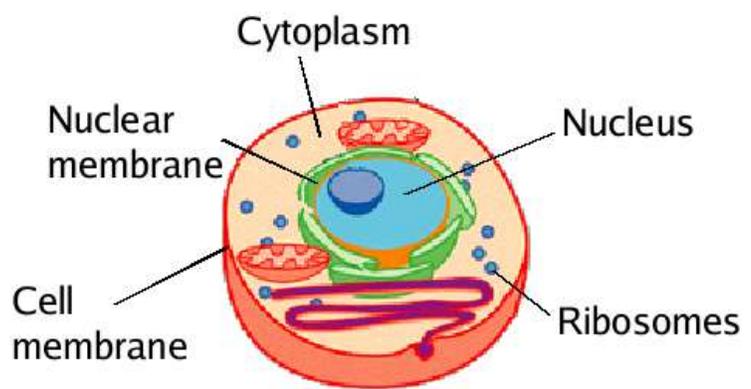
compare the current events and circumstances of our lives to our stored memories and can easily create many negative assumptions that seem real to us and trigger the stress response. **Over time these stored memories begin to pile-up and a person can become hyper-sensitive to any even slightly stressful events or circumstances causing them to trigger their SNS many times a day.** Our bodies were not designed for this and in response to this constant SNS activation, your body is constantly working to recover. (looking for food!)

Another important distinction to make is the fact that stress narrows your thinking to focus on the threat. This means you won't have the full use of your mental capacity. You'll easily forget things, misplace things and make poor decisions. You'll find yourself buying something or ordering something and then later not wanting it. You'll find yourself eating your words and wishing you had not said that or did that. You'll be frequently second guessing yourself and unable to make decisions. This causes MORE STRESS in your life producing a continued narrowed mental function! As you can see, this can become a vicious cycle of damage to yourself and those in your life.

Studies show that the average person is going into the fight-or-flight response 10-15 times per day!

Stress at the cellular level

The activation of the stress response is designed to be an all-or-nothing event. If your life is in danger, you want all your body's resources going to what it needs to survive—strong muscles and a focused attention on the threat. At the cellular level, everything stops other than what is necessary to survive. This however stops or slows the healthy cellular process of taking in oxygen and fuel and getting rid of waste products and toxins. Under the stress response, oxygen and glucose (fuel) are being used by your muscles and the wastes and toxins are not being taken away. **It is said that under stress, your cells “close”—shutting off this needed inflow and outflow that allows for the life of the cell.** When this process is interrupted, the door for disease and cellular aging or death swings wide open!



Some doctors and scientists believe that you can ONLY get a disease when this in and out flow of what the cells need is inhibited. Meaning if you never experienced stress, your cells would never get a disease. Furthermore, studies have been done that have found cells in theory could live forever if the process of oxygen & fuel in and toxins & waste out is kept fully intact. In other words, if you want to live to be 100 and never get cancer or any other disease, do everything you can to maximize what the cells need which is:

Cells NEED:

IN: Oxygen and Glucose & Nutrition (fuel)

OUT : Waste & toxins

***The average human body has 50,000,000,000,000
cells (50 Trillion)***

Stress and disease

The immune system is a miracle-working system that is going 24/7 within your body to fight bacteria, viruses, make repairs and destroy abnormal (cancer) cells. It is the repair and maintenance system of your body. However when your life is in danger, your body doesn't need to be doing repairs or maintenance so it automatically turns this system off (or slows it down) to allocate resources where needed.

Occasionally, this is perfectly fine, but when your stress response becomes hyper-sensitized (occurring 10-15 times per day) it is being activated by common events it was never meant to be activated by like the following:

- You get up in the morning and think about how you really don't want to go to work
- You get in your car and you see you're almost out of gas and will be late for work
- You hear a story on the news about a child that died in a car accident
- You see a sign for a scrumptious buffet, but know you can't go because you're on a diet
- You see a co-worker who you just "know" is secretly trying to get your job
- You stand in line at the post office and "know" the clerk is going slow on purpose
- You drive home and remember you forgot you have a PTA meeting tonight
- Your spouse doesn't empathize enough with your story about your challenging day
- Your kids get into a fight about the TV remote
- You forgot a load of laundry in the washer and now you'll have to wash them again
- You lay in bed thinking about things that disappoint you, unable to fall asleep

Constantly activating the stress response in small or large ways keeps the immune system depressed and closes off the cells. This over time can lead to:

- **Accelerated aging**
- **Increased sickness and disease (cancer and heart disease)**
- **Early death (dying in your 60's or 70's)**



Stress and hunger

The stress response recruits your body's energy by transferring blood and glucose from your organs to your muscles. Your adrenal glands pump out adrenaline which energizes your body for fighting or escaping. You become alert and energized—ready to react! Your body was designed to recover easily from the occasional fight-or-flight response, but it has become too common for people to be experiencing this response in different levels of intensity all day long. This causes a significant drain of energy from the body and subsequently you'll feel tired. Our natural response to feeling tired is to eat. Feel tired? Eat something full of carbs says your brain.

Furthermore, stress is the experience of a negative emotion which causes the brain to automatically look for a way out of that negative emotion. Even after the threat is gone, we can keep thinking about it for hours, days or even longer! Because eating always brings immediate pleasure, eating something becomes an unconscious automatic response (habit) to suppress the discomfort of negative feelings.

Negative emotions (stress) sends false hunger signals to your brain causing you to feel like eating when you don't need to. Experiencing varying levels of stress consistently throughout the day causes some people to feel like they are *always* hungry.

"I'm hungry all the time!"

What are the emotions most responsible?

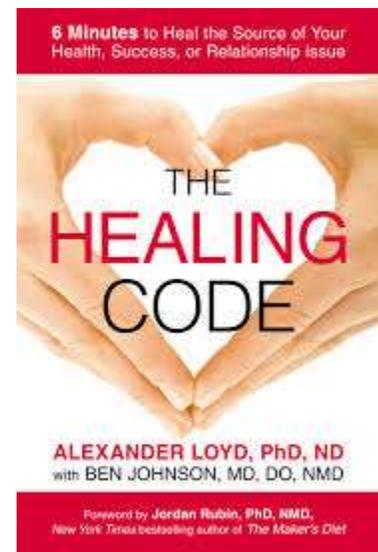
According to Louise Hay, best-selling author of *“Heal your Body...the mental causes of physical illness and the metaphysical ways to overcome them”*, the emotions of **Criticism, Anger, Resentment and Guilt** cause the most stress and therefor disease in our bodies.

All these life-killing emotions (Criticism, Anger, Resentment and Guilt) come from Unforgiveness. We'll be really focusing on this in an upcoming lesson!

An eye opener!

So now you know that stress makes you fat, makes you sick, makes you look older, and causes you to die younger than you should! I hope this gives you a new perspective on stress, like it did me and how **SERIOUS** a threat it is to **YOU!** **Taking control of your thoughts and emotions that cause you to experience stress is the most important thing you must do to live a healthy life.**

An excellent book to better understand stress and how your emotions affect your body and health, read *“The Healing Code”* by Dr. Alexander Loyd.



ASSIGNMENT:

Have you ever felt like you forget things a lot?
Do you feel like you are tired quite often?
Do you find it hard to focus?
Do you find yourself thinking pessimistically more than optimistically?

If you answer “yes” to any or all of these, you are seeing the effects of stress on you. How could changing these things improve your life?

What do you think now that you know your aging has more to do with your reactions to your life's events?

Think about those people you know who got cancer or died early. What do you believe their thinking was like that caused them frequent stress?

Do you see the association between your thinking stress-producing thoughts and your hunger?

On a 1-10 scale, how motivated are you to learn how to eliminate YOUR stress response in YOUR life?