slide 1 = Stress.

slide 2 = Ever feel like this little pooch in the photo...at any minute something is going to give and everything will come crashing down on top of you? Does your "heavy load" include: school, family, money, girl/boyfriend, health or work? All of these contribute stress to our lives.

slide 3 = Racing against deadlines, hunting for a parking place, making ends meet, living with a roommate, arguing with your partner...modern life is full of pressures. And as a college student, you may be in one of the most stressful periods of your life. No, there's just no escaping stress. But while we can't eliminate all the negative sources of stress in our lives, we can learn to more effectively manage the stress we experience. In this lesson, we will explore what stress is, how it affects our health and how we can take steps to manage it more effectively.

slide 4 = So what is stress? In simple terms, it is the body's physical and psychological response to anything it perceives to be threatening, challenging, or overwhelming. If you're thinking: "threatening, overwhelming, or just challenging...wow! That's a lot of stuff." You are right!

slide 5 = It was totally by chance that Hungarian-born endocrinologist Hans Selye stumbled upon the concept of the stress response in 1934. In search of a new hormone, he was conducting experiments on laboratory rats. Instead of the new hormone however, Seyle discovered that in response to a threat (either perceived or real), the body reacts with a predictable, non-specific, three-stage pattern of physiological responses. Seyle termed this response, the General Adaptation Syndrome, or GAS.

slide 6 = In the G.A.S., Seyle explained, the body passes through three universal stages of coping. First there is an "alarm reaction," in which the body goes into a extreme heightened state of emergency in preparation to meet the challenge or threat. This stage, also called the fight-or-flight reaction, takes a great toll on the body and no organism can sustain this condition of excitement for extended periods of time. So, a second stage of adaptation occurs. In the second stage, a resistance to the stress is built. Finally, if the duration of the stress is sufficiently long, the body eventually enters a stage of exhaustion...the body is just plain worn out. But it is the second stage, the fight-or-flight response, that may have the most implications for your long-term health. So let's discuss it in more detail.

slide 7 = Remember being chased by a mean dog, walking down the wrong street at night and hearing footsteps behind you, having the class bully confront you, or even watching a really scary movie? Any of these events, or similar ones, most likely evoked your fight-or-flight response. In simple terms, the fight-or-flight response prepares the body to physically face a threat in one of two ways: to stand and fight or to get the heck out of there. These changes are the result of a complex series of physical and biochemical changes that occur throughout the body.

slide 8 = When the brain perceives that a particular situation is going to be stressful, the pituitary gland, located at the base of the brain, steps up its release of adrenocorticotropic hormone (or ACTH). This burst of ACTH is like an alarm system going off deep in your brain signaling other glands to release a flood of stress hormones into your bloodstream. These hormones—including cortisol and adrenaline—cause some pretty significant changes in your body.

slide 9 = These changes throw the body's system into a state of emergency. You are now as ready as you will ever be to fight an adversary or get away from it as fast as you can. Here are some changes you might notice. Each was designed to fine-tune our caveman ancestors to fight-or-flight. For example, pupil dilation improves vision, especially in the dark where human spent a lot of their time in all the millions of years before electricity. Seeing better would probably improve your odds in a fight. Your hair may stand up to make you look bigger and
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badder...remember cavemen had lots more hair than you do today. Of course, your nostrils flare to take in more oxygen, your heart and lungs work harder to provide more oxygen to the large muscles in your arms and legs...because no matter what you decide—fight or flight—you're going to need your arms and legs. See if you can figure out how some of these other reaction help you fight-or-flight.

slide 10 = Most of the stressors faced by our ancestors were physical threats. It was an eat-or-be-eaten world. So, the fight-or-flight response was very adaptive and is most certainly one of the reasons we survived as a species. But is it still working so great for you today? Is most of your stress the physical danger variety that the fight-or-flight response was designed to deal with?

slide 11 = What do you think American identified as their number one stressor in a recent USA Today poll?

slide 12 = If you said money, you are right. It was followed by family and work in a tie for second. Commuting was a distance fourth.

slide 13 = What about you? What are your biggest stressors? Watch this video to see what's stressing out other college students.

slide 14 = In the 21st century, most of our stressors are of the psycho-social variety. What brings us to the end of our ropes are relationships, money, time, expectations and ambitions. We rarely are confronted with the physical dangers that the flight-or-flight response prepares us for and yet, we continue to react to all stressors with that same emergency response. Yep, our bodies are ready to punch some one out or run like crazy. But how effective is running or physically fighting in dealing with a demanding professor, an inconsiderate roommate, a killer exam, or an empty bank account? Not very effective at all and yet we continue to react to 21st century stressors with a stress response designed for a prehistoric world. About now, you are probably thinking, so what?

slide 15 = To understand the SO-WHAT?, we need to return to the General Adaptation Syndrome. Notice that the blue line represents HOMEOSTASIS. Homeostasis is a condition in which the body's systems are in balance and function most efficiently. Your body craves homeostasis. During the fight-or-flight response, which occurs between the ALARM and RESISTANCE stages, the body is pulled away from homeostasis into a state of emergency. This is intended to be a very temporary state and theoretically your body should return to homeostasis quickly. After you've fought, fled or otherwise physically escaped your stressful situation, the levels of cortisol and adrenaline in your blood stream decline. As a result, your heart rate, blood pressure, digestion and metabolism return to normal. But what if you don't do what your body is all keyed up to do? What if you don't fight-or-flight? What if these psycho-social stressors pile up one after another and your body has no chance to recover and return to homeostasis?

slide 16 = Today instead of protecting you, the stress response, can make you more vulnerable to certain health problems. The long-term activation of the stress-response can disrupt almost all of your body's processes and can lead to what are known as stress-related illnesses. Let's take a look at a few of the more common ones.

slide 17 = Chronic stress suppresses your immune system which makes you much more susceptible to infectious disease. Typically, your immune system responds to infection by releasing substances which cause inflammation. In response to the inflammation, cortisol is released to switch off the immune and inflammatory responses once the infection is cleared. As I pointed our earlier, during the fight-or-flight response, an increased amount of cortisol is released into the blood stream. Chronic stress means continuously high levels of cortisol which means continuous immune system suppression.

slide 18 = Stress hormones slow the release of stomach acid and the emptying of the stomach
which can lead to indigestion and to just a good old fashion stomach ache. These same hormones also cause diarrhea because they stimulate the colon, which speed the passage of its contents.

slide 19 = High levels of cortisol and other stress hormones can raise your heart rate and increase both your blood pressure and your cholesterol levels. High blood pressure and raised cholesterol are risk factors for both heart attacks and stroke.

slide 20 = Recent studies have suggested that cortisol also plays a role in another cardiovascular disease risk factor: OBESITY. Increased levels of cortisol promote the accumulation of abdominal fat. Remember fat around the middle is what makes a person an "apple" body type and being an apple is a risk factor for both heart disease and diabetes. To make matters worse, cortisol also increases appetite.

slide 21 = Stress hormones produce feelings of fear and anxiety. Fear and anxiety are very adaptive feelings if you are confronting a saber-toothed tiger, but not so great if you feel that way all the time. Chronic stress has been linked to depression, and anxiety disorders. Excessive amounts of cortisol can cause sleep and eating disturbances and even a loss of interest in sex.

slide 22 = There are many other health effect of chronic stress. It can trigger asthma, aggravate allergies, worsen man skin conditions such as psoriasis, eczema, hives and acne. It can also be a factor in chronic pain conditions such as backache and headaches.

slide 23 = Well, what causes stress? The simple answer to this question is just about anything and anybody can cause you stress...be a STRESSOR. All change produces stress, even positive changes. Negative changes like a divorce are called DISTRESSORS and positive ones like college graduation are termed EUSTRESSORS. So there's no avoiding stress and the truth is you probably wouldn't want a stress-free life, even if you could have one. That would most likely be pretty boring. What's more important to our health than the actual stressor itself is our reaction to it.

slide 24 = Your reaction to stress is unique to you. Researchers have found that some people are naturally laid-back about most everything, some react strongly to most everything and some are fall between these two extremes. These three reactions have been categorized as Type A, B, and C personality types.

slide 25 = What are the characteristics of the Type A personality? First and foremost, Type As are very time obsessed. They are impatient, hate to wait in lines or sit in traffic, have to have a schedule and stick with it, and do everything, including walking and driving, with speed. Second, they have rapid speech patterns. They raise their voice in normal conversation and finish other people's sentences. Third, they are multitaskers and engage in more than one thought or activity at a time. Manipulative control means that they have a strong desire to influence, or even intimidate others and get a one-up on them. Finally, they can be hyper-aggressive and angry if threatened or criticized.

slide 26 = Type A individuals are always on the verge of blowing their top...they seem to have more negative stress in their lives and react more negatively to this stress. They are also more vulnerable to the negative health effects of unmanaged stress. Being a Type A is one of the best predictors of heart disease. This could be because they are more prone to sympathetic nervous system arousal, hypertension and elevated levels of cholesterol.

slide 27 = Type B is the opposite of Type A. If Type A is characterized as tense, then Type B is laid back. They are less likely to notice stress in their environment and less reactive to it. Type Bs are therefore less at risk for stress-related illnesses. However, the downside to being a Type B individual is that they can lack drive, ambition and competitiveness which can put them in a distinct disadvantage in today's job market. They would never make it as The Donald's apprentice!
slide 28 = In 1979, Dr. Suzanne Kobasa defined a third personality type: Type C, sometimes also called stress-resistant or resilient personality. While Type As are negatively affected by stress and Types Bs hardly seem to notice it, Type Cs actually seem to thrive on it. If I wanted to hire a fighter pilot, air traffic controller or hostage negotiator, you can bet I'd look for a Type C! Dr. Kobasa found that Type Cs have three specific personality traits that collectively act as a buffer to stress. These traits are: challenge, commitment and control.

slide 29 = Before we talk about each of these traits, let's find out if you are a Type C personality.

slide 30 = Type Cs naturally view change and problems as challenges rather than seeing them as threats. The have the ability to take risks and they seek adventure. When the road forks, they will choose the path they didn't take the last time, just because they like a change or an adventure.

slide 31 = Whether it be a major, an occupation, a relationship, or a cause, Type Cs never do something half-way. If they take something on, they are fully committed to it. They consistently have an investment of their values and beliefs into fulfilling their potential.

slide 32 = Type Cs have what psychologists call an "internal locus of control." This means that they understand they and they alone are responsible for their actions. Type Cs feel a sense of personal control and empowerment. They feel as if they are controlling the events in their lives rather than being a victim of the events. They truly feel like the captains of their own ships.

slide 33 = There will always be stress in your life and sometimes you will feel like you are burning out from both ends. However, while you can't eliminate stress, you can manage it to prevent it from becoming a health risk for you.

slide 34 = How do you manage stress? Do you use some of the same strategies that other college students use? Watch this video to find out.

slide 35 = Successful stress management involves skills. Just like any other skills, you can learn them. There are two major categories of stress management skills: COPING skills and RELAXATION skills.

slide 36 = There are four types of coping skills. The first is time management. Time is a big stressor for most of us. Whether is not having enough of it and feeling rushed and overwhelmed or having too much of it and feeling bored or lonely. For most college students, not having enough of time is the bigger stressor. You will never be able to increase the amount of time you have. Nope, none of us get more than 24-hours in a day. But you can choose WHAT to do with those hours. Effective time management requires that you constantly prioritize and drop those things that are time wasters.

slide 37 = The second coping skill is changing your perception. To do this you have to alter the way you perceive or define a particular stressful event. Type Cs do this naturally because they perceive problems as challenges, not as threats. If you have a good sense of humor and can approach life's everyday problems with it, then you are along way down the road to effective stress management.

slide 38 = People who are effective stress managers have a viable support system. When they are angry, sad, or depressed, they don't deny their emotions but find people they can turn to for support and advice. This is coping skill #3.

slide 39 = Taking good care of your physical health will enable you to cope more effectively with the stress in your life. Probably THE most important skill is adopting the healthy
lifestyle habits that we've stressed through this class. So eat nutritiously, exercise, don't smoke or use drugs and get an adequate amount of sleep. Being in good physical health can help your body fight the negative health effects that accompany stress.

slide 40 = One more point about physical activity as a stress management tool. Remember we talked about how the fight-or-flight response prepares the body to stand and fight or to run away. Well physical activity allows you to do what the fight-or-flight response has prepared you to do. Consequently, like your caveman ancestors, once you have "fought" or "flighted", your body will quickly return to homeostasis. As far as your body is concerned, it doesn't seem to matter if you are running from a saber toothed tiger or just running around the track...the results are the same, a return to homeostasis. So, the next time you're feeling stressed out, try something physical!

slide 41 = So, managing time, changing perception, managing emotion and managing lifestyle are the four stress management "coping skills." Another category of stress management skills we want to address are the "relaxation skills." The purpose of relaxation skills is to return the body from the heightened state of physiological arousal to homeostasis. Two effective relaxation skills are meditation and yoga.

slide 42 = Yoga is a ancient Hindu discipline that involves a system of exercises designed to promote the control of body and mind. The physiological effects of yoga have real health benefits in our stress-filled modern world.

slide 43 = Meditation, which in its most simple form is little more than "calm thinking," has been found to be effective in creating a deep sense of relaxation in a relatively short period of time. Research shows that alpha brain waves, which are present with deep relaxation, increase in intensity and frequency during meditation. While meditation techniques can be learned in just one session, experts agree that they should be practiced for at least one month in order to receive the most profound stress-reducing benefits. Why don't we try a simple relaxation exercise?

slide 44 = Okay...what do you see here? If you are like most people you see a grid of blue dots. Do they appear to be moving? If so, then researchers say you are probably not relaxed. Let's see if we can make them stop. Close your eyes. Imagine yourself lying on your stomach on a raft in a lake. It's a beautiful summer day and you are perfectly relaxed. Take a deep breath in...as you exhale imagine that you are blowing out all the tension from you muscles and are sinking deeper and deeper into the raft. Another deep breath in, now exhale tension and worries as you sink deeper and deeper into the raft. Now slowly open your eyes and look at the dots...are they moving a little less?

slide 45 = Here's another chance to practice your relaxation skills. This time focus on just one of the little brown nuts in the middle of the image, breathe normally, but try to clear your mind of all thoughts.

slide 46 = Here's your last chance. Use whatever relaxation strategy you want to try to keep these little flowers from dancing!

slide 47 = Stress management skills require continuous practice as you go through life and deal with change. Even if you take everyday frustrations in stride, stress can still get the better of you when you find yourself dealing with something big, such as illness, job loss, or the loss of a loved one. But if you have good stress management skills, you will be able to better handle both the big and small stressors in your life.