Calm sound effects free

So why do we only have strength in short bursts when faced with danger? Why don't we walk around in a constantly increased agitation? The short answer is that it would kill us. Here's the long answer. Turning potential muscle strength into actual muscle strength takes conscious training. Muscles strengthen over time through use, as in lifting weights. While our muscles may have potential strength that can be utilized when faced with danger, this can also have dangerous consequences. Muscles suddenly used in addition to their capacity can tear, and the joints can be pulled out of their sockets. Ad The physical state of agitation, too, can cause lasting negative effects in addition to immediate damage. Austrian physician Hans Selye examined the human response to stress and concluded that there are three stages that constitute what he termed general adaptation syndrome. The first stage occurs when you encounter stress, the alarm reaction (AR) phase. This phase includes the arousal of your fight-or-flight response to a stressor. All your internal alarms are activated and you are preparing to face danger or run away. The next stage is the phase of resistance (SR). In the SR phase, human reaction to danger is in full swing: your students are playing, your heart rate and breathing are going up and your muscles contract. At this point you are driving for your life, lifting a car from another person or engaged in another above average activity. In the case of seeing a person pinned under a car, the stressor is short-lived. The body begins to relax and returns to its normal state after a few tense minutes. When the stressor is gone, the parasympathetic system kicks in. This system plays a role in the opposite direction of the sympathetic system. When the parasympathetic system takes over, the heart rate slows down again, breathing returns to normal, muscles relax and non-essential functions (like digestion) immediately begin again. The hypothalamus, which is responsible for triggering both the sympathetic response to danger and the parasympathetic reaction after the danger is over, is ultimately responsible for achieving a balance between both. This balance, the normal state of the body, is called homeostasis. When the body remains in an agitated state for an extended period of time, it enters the final state of Selye's general adaptation syndrome - the state of exhaustion (SE). This phase occurs when the reaction to a stressor has been going on for too long. In this state of hyperarousal, the body's immune system begins to wear down. As a result, a person will be more susceptible to infections and other diseases as the body's defenses have been used to deal with a stressor. A person in a prolonged state of stress can easily catch a cold or have an increased chance of suffering a heart attack. The state of the exhaustion phase is most often seen in cases of prolonged stress, such as stress at work. So in the end it's a good thing your body's goal is homeostasis. If we existed in an agitated state That time, we would run out of gas. For more information about the human body, read the next page. Related HowStuffWorks articles George, Jane. The polar bear can't stop the terrifying mother in Ivujivik. Nunatsiaq News. February 17, 2006. CD and Meadows, J.C. The effect of adrenaline on contractions of human muscles. Journal of Physiology. 1970. &; pdfMartin, Ben Psy.D. Fight or Flight. Psychiatry Centre. February 9, 2006. Rebecca. Scared speechless: Public speech step by step. Sage publications. 1994. (ISBN 0803951744) &dq=scared+speechless+public+speaking+step+by+step&sig=e7T3SGl _x8osxtYwwMZh6hpOWEcArizona lifting car out injured teenager. USA Today. July 28, 2006 . University of Maryland Medical Center. The Fight or Flight response to stress. Michigan State University. The Last Word: Live Wire. New scientist. of 'Fight-or-Flight' responses: Molecular memory of stress prompts adrenaline increases, Cornell study shows. Science Daily. 22 April 1998. Air, as all matter, consists of molecules. Even a small part of the air contains a large number of air molecules. The molecules are in constant motion, traveling randomly and at great speed. They constantly collide with and rebound apart and strike and rebound from objects that are in contact with the air. A vibrating object will produce sound waves in the air. For example, when the head of a drum is hit with a hammer, the drumhead vibrates and produces sound waves. The vibrating drumhead produces sound waves because it moves alternately outwards and inwards, pushing toward, then moving away from, the air next to it. The air molecules that hit the drum head as it moves outward rebound from it with more than their normal energy and speed, after receiving a tap from the drumhead. These faster moving molecules move into the surrounding air. For a moment, therefore, the region next to the drumhead has a greater than normal concentration of air molecules-it becomes a region of compression. As the faster moving molecules overtake the air molecules in the surrounding air, they collide with them and pass on their extra energy. The area of compression moves outwards as energy from the vibrating drumhead is transferred to groups of molecules farther and farther away. Air molecules that hit the drum head as it moves inwards from it with less than their normal energy and and For a moment, therefore, the region next to the drumhead has fewer air molecules than usual- it becomes a region of rarefied. Molecules colliding with these slower moving molecules also rebound at less speed than normal, and the region of rarefaction travels outward. The wave nature of sound becomes apparent when a graph is drawn to show the changes in the concentration of air molecules at a time as alternating pulses of compression and rarefaction pass this point. Graph of a single pure tone, like that produced by a tuning fork. The curve shows the changes in concentration. It begins, arbitrarily, at a time when concentration is normal and a compression pulse has just arrived. The distance between each point on the curve from the horizontal axis indicates how much the concentration varies from normal. Each compression and the following rarefaction constitutes a cycle. (A cycle can also be measured from any point on the curve to the next corresponding point.) The frequency of a sound is measured in cycles per second or hertz (abbreviated Hz). Amplitude is the largest amount by which the concentration of air molecules varies from normal. The wavelength of a sound is the distance the disturbance moves during a cycle. It is related to the speed and frequency of sound at the formula speed /frequency = wavelength. This means that high frequency sounds have short wavelengths and low frequency sounds long wavelengths. The human ear can detect sounds with frequencies as low as 15 Hz and as high as 20,000 Hz. In still air at room temperature, sounds with these frequencies have wavelengths of 75 feet (23 m) and 0.68 inches (1.7 cm) respectively. The intensity refers to the amount of energy transferred by the disturbance. It is proportional to the square of the amplitude. The intensity is measured in watts per square centimetre or in decibels (db). The decibel scale is defined as follows: an intensity of 10-16 watts per square centimeter equals 0 db. (Written out in decimal form, 10-16 appears as 0.0000000000000001.) Each tenfold increase in watts per square centimeter means an increase of 10 db. Thus, an intensity of 10-15 watts per square centimeter can also be expressed as 10 db and an intensity of 10-4 (or 0.0001) watts per square centimeter as 120 db. The intensity of the sound decreases rapidly with increasing distance from the source. For a small sound source that radiates energy uniformly in all directions, the intensity inversely varies with the square of the distance from the source. That is, at a distance of two meters from the source the intensity is a quarter as large as it is at a distance of one foot; on three feet it is only a ninth as big as on one foot, etc. PitchPitch depends on the frequency; generally, an increase in frequency causes a feeling of increasing pitch. The ability to distinguish between two sounds that are dense in frequency, however, decreases in the upper and lower parts of the audible frequency range. There are also from person to person in the ability to distinguish between two sounds of almost the same frequency. Some trained musicians may detect differences in frequency as small as 1 or 2 Hz.Because of the way the hearing mechanism works, the perception of the track is also influenced by intensity. Thus, when a tuning fork vibrating at 440 Hz (the frequency of A above the middle C on the piano) is brought closer to the ear, a slightly lower tone, as if the fork was vibrating more slowly, is heard. When the source of a sound moves at relatively high speed, a stationary listener hears a sound louder in the pitch when the source moves toward him or her, and a sound lower in pitch when the source moves away. This phenomenon, known as the Doppler effect, is caused by the wave character of the sound. LoudnessIn general, an increase in intensity will cause a feeling of increased loudness. But loudness does not increase in direct proportion to intensity. A sound of 50 dB has ten times the intensity of a sound of 40 dB, but is only twice as high. Loudness doubles with each increase of 10 dB in intensity. Loudness is also affected by frequency because the human ear is more sensitive to some frequencies than to others. The hearing limit - the lowest sound intensity that will give the feeling of hearing to most people - is about 0 dB in the frequency range of 2,000 to 5,000 Hz. For frequencies below and above this area, sounds must be of greater intensity in order to be audible. Thus, for example, a sound of 100 Hz is barely audible at 30 dB; a sound of 10,000 Hz is barely audible at 20 dB. At 120 to 140 dB most people experience physical discomfort or actual pain, and this level of intensity is called the threshold for pain. Ad