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**How to Reduce Stress**

* Introduction:

Stress, in everyday terms, is a feeling that people have when they are overloaded and struggling to cope with demands.

These demands can be related to finances, work, relationships, and other situations, but anything that poses a real or perceived challenge or threat to a person's well-being can cause stress.

Stress can be a motivator. It can be essential to survival. The "fight-or-flight" mechanism can tell us when and how to respond to danger. However, if this mechanism is triggered too easily, or when there are too many stressors at one time, it can undermine a person's mental and physical health and become harmful.

Stress is the body's natural defence against predators and danger. It flushes the body with hormones to prepare systems to evade or confront danger. This is known as the "fight-or-flight" mechanism. When we are faced with a challenge, part of our response is physical. The body activates resources to protect us by preparing us either to stay and fight or to get away as fast as possible. The body produces larger quantities of the chemicals cortisol, adrenaline, and noradrenalin. These trigger an increased heart rate, heightened muscle preparedness, sweating, and alertness. All these factors improve the ability to respond to a hazardous or challenging situation. Factors of the environment that trigger this reaction are called stressors. Examples include noises, aggressive behaviour, a speeding car, scary moments in movies, or even going out on a first date. The more stressors we experience, the more stressed we tend to feel.

* Objective
1. To reduce Stress
2. To maintain wellness
3. To increases level of motivation
4. To free form various chronic and acute metal illness

How to do fulfilled above object?

* These methods will be used for getting above object
1. Listen to music, Yoga, Meditation
2. Talk yourself through it
3. Eat right (Consider Supplements, Reduce Your Caffeine Intake)
4. Recreational Activity
5. Drink tea
6. Be mindful (Learn to Say No, Practice Mindfulness)
7. Sleep better
8. Learn more about stress relief
9. Change Atmosphere (Light a Candle, Chew Gum, Spend Time With Friends and Family, )
10. Hormonal Balance
* How to Measure Stress: Questionnaire and Behavioural Technique
* Which technique is more scientific for reducing stress by previous scientific research

Combined Stress reducing method using as par personal individual differences.

* The-Brain
The stress response begins above your shoulders. The amygdala (a cluster of cell nuclei inside the temporal lobe that processes emotional data) sends a threat message to the hypothalamus, which in turn tells the sympathetic nervous system to protect you from attack. The nervous system increases heart rate, constricts some blood vessels and dilates others, slows down the intestines, inhibits digestive secretions, and prompts glands to flood the system with cortisol. If this alarm is set off too often, it can do serious physical damage. “When too much cortisol is hitting the brain for an elevated amount of time,” Lucille says, “you start to create something called hippocampal brain damage, and the results of this are disturbed circadian rhythms: Your sleep-wake cycle is disturbed. You get moody, and you get memory loss, brain fog.”

* The-Pituitary-Gland
Sometimes called the “master gland,” the pituitary controls most of the other glands in the body, regulating a host of functions including body temperature, thyroid activity and urine production (hence those sweaty palms and frequent bathroom trips when you’re nervous). During the stress response, the pituitary produces adrenocorticotropic hormone (ACTH), which prompts the adrenal glands to produce cortisol. Cortisol increases arterial blood pressure, pulling glucose and fat from body tissues into the bloodstream for energy, one reason appetite diminishes during acute stress. The pituitary gland also releases thyroid-stimulating hormone, which stimulates the thyroid gland to produce thyroxine. Thyroxine increases the metabolic rate, raises blood-sugar levels, and increases respiration, heart rate and blood pressure — all essential to a quick burst of activity. But the metabolic boost from thyroxine uses up nutrients too quickly, so the body overuses B vitamins and excretes calming magnesium.
* The-Heart
Blood vessels constrict during the stress response, which makes it harder for the heart to pump blood. High blood pressure from constricted vessels and increased cortisol and thyroxine only exacerbates inflammation and arterial plaque build-up. Additionally, fatty acids released into the bloodstream by cortisol can lead to overproduction of low-density cholesterol (LDL). High-density cholesterol, or HDL, actually helps keep the circulatory system functioning and has powerful healing value. But, notes Lee, the so-called bad version, LDL, contributes to dangerous plaque buildup on arterial walls that have been inflamed by toxins and high blood sugar — common byproducts of stress eating.
* Adrenal glands
Upon detecting a threat, the hypothalamus signals the adrenal medulla (an autonomic-nervous-system node next to the adrenal glands) to secrete two hormones — adrenaline and noradrenaline — into the bloodstream. These increase heart rate and blood pressure. Blood is pumped to extremities and their muscles to help you run or go into battle, while gastrointestinal activity is reduced, producing the feeling of butterflies in the stomach. When this complex process is repeated routinely with no time for recuperation, you start to feel both lethargic and wound up — tired but wired. Chronic stress also wears out the adrenal glands by overusing their store of energizing adrenaline. According to Lee, this can lead to a condition that integrative and naturopathic doctors identify as “adrenal fatigue,” which can manifest as exhaustion, physical weakness, immune suppression, hormone imbalances, skin problems and depression.

* Stomach-and-Intestines
The slowdown of the digestive process triggered by the sympathetic nervous system and the thyroid can prompt either overproduction or underproduction of digestive acids. Overproduction can lead to painful acid reflux (heartburn), while underproduction means your stomach has limited digestive power. Too little stomach acid can leave food in the system so long that it ferments rather than digests. This can produce bloating, create inflammation of the intestinal tissue and reduce the overall absorption of nutrients.“If your bowel’s inflamed,” says Emmons, “you’re not getting nutrients out of the food you eat. You can eat really great food but still not benefit from it.”
* Body Fat
While some people do lose weight under stress, research reveals that high levels of cortisol can also encourage weight gain in two ways: (1) Cortisol amps up the appetite for quick energy (namely, carbohydrates and sugar), triggering cravings and overeating. (2) Cortisol also puts excess glucose in the bloodstream. When it’s not burned off through exercise (the equivalent of sprinting away from or fighting off the perceived attacker), it gets stored as fat in your body’s tissues. That makes chronic stress a real enemy of overall fitness, Emmons points out. “You tend to gain weight because cortisol is making you want to eat more. But it’s also making you more likely to hold on to that food as fat, especially as abdominal fat.”
* Reproductive system
Progesterone is a crucial hormone for fertility in women; it nourishes the lining of the uterus to support the implantation of an embryo and sustain a pregnancy. It’s also a key ingredient in the creation of cortisol in the adrenal glands. When the body demands large amounts of cortisol, its total amount of progesterone can diminish, leading to low libido and possible infertility. (For more details about how stress affects your romantic and reproductive life,
* The-Aging-Process
In 2004 a University of California, San Francisco research team reported that chronic stress may play a role in shortening telomeres, the tiny protein complexes at the ends of chromosomes that help protect genetic information as cells divide. As telomeres shorten, cells lose the ability to divide; they can also get confused about their mission and start to manifest serious ailments, from Parkinson’s to heart disease. (Other studies have linked shortened telomeres with the onset of dementia.) While cell loss is an integral part of the aging process, chronic stress accelerates it by munching away at these protective proteins so they diminish faster than they would naturally.

## Turning Down the Intensity

## Short of winning the lottery and moving to a nice island with your favorite people (which would soon introduce anxieties associated with boredom), how does one actually reduce stress? The first thing to remember, says Hanson, is that our emotional reaction to events initiates the stress response. “We need to make a distinction between events and our experience of them,” he says. “An event that’s highly stressful for some people is no big deal for others.” The key to lowering stress, according to Hanson, is to build resilience. Since we have only modest control over what happens to us, our best hope is to train ourselves to respond to stressful circumstances without triggering the alarm system every time. What follows are some of the building blocks for a more stress-resilient body.

* Rest
The best way to quiet the body-mind’s stress response, and to support the recovery process, says Lee, is “to relax and rest as deeply as you can — to rest as if you were on your best vacation ever.” What does that sort of profound rest accomplish? It charges up the parasympathetic “rest-and-digest” system (the antithesis of the sympathetic “fight-or-flight” system), which powers the body’s reparative and digestive activities. When deep rest is in short supply, you can still support parasympathetic activity by taking frequent short breaks — ideally every 90 to 120 minutes Finding ways to improve sleep quality is also vital, says Emmons. “This can include meditative practices, deep breathing, exercising early in the day, and getting seven or eight hours a night of sleep whenever possible. Naps can be helpful, too, if they’re short, 30 to 45 minutes. Any longer and your sleep cycles may be disrupted.”
* Nutrition
A well-fed body is a resilient body — far better equipped to handle stress and to recover from hormonal floods. Keeping sugar and flour to a minimum while eating plenty of healthy fats and good protein (grass-fed meats, fish, legumes, nuts) will help keep blood sugar on an even keel. This supports good energy, mental clarity and stable mood — all of which lead to more grace under pressure. Lee advocates the Mediterranean diet, which includes plenty of legumes, greens and fish. She also likes that it promotes a proper balance of omega-3 and omega-6 fatty acids and soothes intestinal inflammation. As for stress-busting supplements, many integrative doctors recommend taking a good-quality fish oil as well as a B-vitamin complex, since stress tends to deplete B-vitamin levels. Both have shown measurable effects in treating depression, another common by product of chronic stress.
* Meditation
Studies show that mindfulness meditation — becoming a calm observer of your own thoughts and emotions — stimulates the parasympathetic nervous system. “Meditation,” says Emmons, “is one way of sending signals [to your body’s stress-response system] that it’s OK to stand down.” Hanson adds that meditation can also reduce frantic neurological activity in the amygdala, the alarm bell of the brain. Self-reflection (a fairly advanced activity, as far as brains are concerned) shifts activity to the neocortex, or “executive center.” When the brain starts to rely more on the neocortex and less on the amygdala, it begins to strengthen new neural pathways that incline the brain away from reactivity and toward calmer, more constructive responses.
* Exercise
We all need some kind of physical movement to stay stress-resilient, whether it’s walking, biking, doing yoga or shooting hoops. Emmons notes that the stress response is inextricably connected to exercise — after all, it’s preparing us to run fast or fight hard — so “vigorous exercise helps to bring down adrenaline levels, while gentler exertion is good for lowering cortisol.” Lee points out that exercise also produces positive mood elevators (endorphins and serotonin) and breaks down cortisol in the bloodstream.

Conclusion: Combined stress management technique will be used for removing stress.

**To Create Good Players Starts From Root Level – Promotion of Motor Skills**

* Motor Activities - Introduction

A **motor skill** is simply an action that involves your baby using his muscles. Gross **motor skills** are larger movements your baby makes with his arms, legs, feet, or his entire body. So crawling, running, and jumping are gross **motor skills**. Fine **motor skills** are smaller actions.

Types of motor skills. Motor skills are **movements** and actions of the **bone structures**. Typically, they are categorized into two groups: **gross motor skills** and **fine motor skills**. **Gross motor skills** are involved in **movement** and **coordination** of the arms, legs, and other **large** body parts and **movements**. **Fine** **motor skills** are achieved when children learn to use their smaller muscles, like muscles in the hands, fingers, and wrists. Children use their fine **motor skills** when writing, holding small items, buttoning clothing, turning pages, eating, cutting with scissors, and using computer keyboards.

* Objectives
1. Students will learn how to use fine motor skills.
2. Students will learn how to use gross motor skills.
3. Students will use motor skills in routine life style.
* How to Develop Motor Skills
* Fine Motor Skills :- Please watch Video, link mention below
* https://www.youtube.com/watch?v=MD86MGSBd8w
* <https://www.youtube.com/watch?v=EgULBiZ37GQ>

* Gross Motor Skills :- Please watch Video, link mention below
* <https://www.youtube.com/watch?v=Vo39qE40jXQ>
* <https://www.youtube.com/watch?v=6HzlWIUmpkg>
* Outcomes
* Mentors think with wider views about small kids coaching.
* Kids will do more better practices then previous.

**Body Fat (Human Energy But Harmful for Body)**

* **Introduction:**

Firstly – and quite simply – you will live longer. The higher your body fat percentage, the lower your life expectancy. Being overweight or obese significantly increases your chance of dying from heart disease, diabetes or cancer, as well as suffering many other health problems.

But losing weight doesn’t just help you live longer – it also helps you get more enjoyment out of your longer life. Multiple studies have shown that losing weight increases your mood and positivity, makes food taste better, improves your libido and sex life, helps your brain fire on all cylinders and reduces expenditure on unhealthy habits.

So the physical and mental health benefits of getting lean are plain to see, but how do you get there? Eating healthily and exercising regularly are your first steps, but in addition, each of these small changes will help make the difference

* **Objective**
1. To reduce body weight
2. To maintain body fat
3. To increases level of fitness
4. To remove poor posture of body
5. To free form various chronic and acute Disease

How to do fulfilled above object?

* The five method will used for getting above object
1. **Dieting:** Reducing Body Fat with Dietary Changes
2. **Physical Activity:** Reducing Body Fat with Exercise
3. **Pharmacology Treatment:** Taking Pills and Medicine for reducing body Fat
4. **Behavioural Treatment:** Making Other Lifestyle Changes to Reduce Body Fat
5. **Fat Removal Surgery:** Do you also suffer from excess fat in your body parts? The solution for excess fat elimination is excess fat removal surgery in India that is also known as liposuction surgery. Excess fat removal surgery will make your de-shaped body in shape. Excess fat elimination is possible with the help of excess fat removal surgery in India. Excess fat removal surgery or Liposuction for permanent body shaping is the most common cosmetic surgery performed in the India. Liposuction can enhance your appearance and your self-confidence. Liposuction can be carried out on the tummy, hips, thighs, and buttocks in fact, anywhere on the body where localized fat can be removed.
* **How to Measure body fat:** [Body fat](https://tanita.eu/tanita-academy/understanding-your-measurements/body-fat-percentage) is essential for maintaining body temperature, cushioning joints and protecting internal organs. Body fat scales can help you keep track of your body fat. The energy, or calories, our body needs comes from what we eat and drink. Energy is burned through physical activity and general bodily functions. If you consume the same number of calories as you burn, all the calories are converted into energy. But if you consume more than you burn, excess calories are stored in fat cells. If this stored fat is not converted into energy later, it creates excess body fat. Although you need healthy body fat, too much fat can damage your long-term health. Reducing excess levels of body fat has been shown to directly reduce the risk of certain conditions such as high blood pressure, heart disease, type 2 diabetes and certain cancers. Too little body fat may lead to osteoporosis in later years, irregular periods in women and possible infertility. It is important to keep track of your body fat with a [body fat scale](https://tanita.eu/products/body-composition-monitors). Then you can check your body fat results against the Tanita healthy body fat ranges. These measurements are available for everyone from age five to 99 years
* Which technique is more scientific for reducing body fat by previous scientific research

**Aerobics > Aquatics > Gymnastics > Swiss Ball Exercise > Pilates > Free Hand Exercise**

* **Scientific process of fat burning :**
* The Journey of a Fatty Acid to Muscle

 Fat resides primarily in designated fat-storage cells called **adipocytes**. Most adipocytes are just under the skin (subcutaneous fat) and in regions surrounding (and protecting) vital organs (visceral fat). Nearly all fat in adipocytes exists in the form of **triacylglycerols** (TAGs or triglycerides). Each TAG consists of a backbone (glycerol) with three fatty-acid tails.

 Depending on energy supply and demand, adipocytes can either store fat from the blood or release fat back to the blood. After we eat, when the energy supply is high, the hormone **insulin** keeps fatty acids inside the adipocytes (Duncan et al. 2007). After a few hours of fasting or (especially) during exercise, insulin levels tend to drop, while levels of other hormones—such as **epinephrine** (adrenaline)—increase.

 When epinephrine binds to adipocytes, TAG stores go through a process called **lipolysis** (Duncan et al. 2007), which separates fatty acids from their glycerol backbone. After lipolysis, fatty acids and glycerol can leave the adipocytes and enter the blood.

* Fatty Acids in the Blood

 Because fat does not easily dissolve in water, it needs a carrier protein to keep it evenly suspended in the water-based environment of the blood. The primary protein carrier for fat in the blood is **albumin** (Holloway et. al. 2008). One albumin protein can carry multiple fatty acids through the blood to muscle cells (Horowitz & Klein 2000). In the very small blood vessels (**capillaries**) surrounding the muscle, fatty acids can be removed from albumin and taken into the muscle (Holloway et al. 2008).

* Fatty Acids Going From the Blood Into Muscle

 Fatty acids must cross two barriers to get from the blood into the muscle. The first is the cell lining of the capillary (called the **endothelium**), and the second is the muscle-cell membrane (known as the **sarcolemma**). Fatty-acid movement across these barriers was once thought to be extremely rapid and unregulated (Holloway et al. 2008). More recent research has shown that this process is not nearly as fast as once thought and that the presence of special binding proteins is required at the endothelium and sarcolemma for fatty acids to pass through (Holloway et al. 2008). Two proteins that are important for fatty-acid transport into the muscle cells are FAT/CD36 and FABPpm.

* Two Fates of Fat Inside Muscle

 Once fat is inside the muscle, a molecule called **coenzyme A** (CoA) is added to the fatty acids (Holloway et al. 2008). CoA is a transport protein that maintains the inward flow of fatty acids entering the muscle and prepares the fatty acid for one of two fates:

* oxidation (in which electrons are removed from a molecule) to produce energy or
* storage within the muscle (Holloway et al. 2008; Shaw, Clark & Wagenmakers 2010

**Conclusion:** Aerobics exercise is very useful for reducing body fat (Parvadia,2017)