



A Science of Medicine
The Art of Care

Reducing stress naturally

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Stress is an inevitable part of life and getting rid of it completely is not possible. However, it is important to keep stress under control and there are certain steps that can be taken to achieve this goal. Exposure to chronic stress greatly impairs a person's ability to handle every day responsibilities productively and also interferes with normal body function thereby greatly deteriorating mental and physical wellbeing. Unmanaged stress is known to impair memory, alertness, focus, and other aspects of cognitive health. Serious mental health issues like depression and anxiety are also likely outcomes of out-of-control stress. Other health complications associated with uncontrolled stress include weak immune system, heart disease, high blood pressure, sleep problems, and premature aging. Chronic stress also leads to mental and physical exhaustion as well as general lack of motivation and energy.

The following factors make significant impacts on keeping stress well managed. Controlling stress on a consistent basis improves a person's capability to handle day to day tasks and substantially minimizes the harmful effects of stress.

Spinach

Spinach is excellent for combating stress due to its highly nutritious profile. Folate, a key stress-relieving nutrient found abundantly in spinach, acts as a potent mood booster because it promotes production of dopamine and serotonin. These are mood enhancing hormones and they are necessary for offsetting stress and maintaining optimum mental wellbeing. So, continuous intake of spinach and other folate-rich foods plays an important role in keeping mood and general energy levels up.

Furthermore, folate deficiency tends to inhibit dopamine and serotonin production. Therefore, lack of folate in a diet can directly impair the body's ability to prevent and manage stress. This situation also makes the body less capable of offsetting serious health complications related to uncontrolled stress.

Dopamine and serotonin are so important for high mood and general mental wellbeing that people suffering from depression experience very low levels of these hormones. This close relationship between folate and mood levels shows just how important spinach is for not only easing stress but also preventing depression induced by stress. The connection between folate and amounts of dopamine and serotonin is also highly consistent with research findings showing that folate deficiency is common among people with depression. A study published in Journal of Psychiatry and Neuroscience points out that numerous studies going back to the 1960's show an elevated incidence of folate deficiency in patients with depression. The report further explains that having depression patients boost folate intake bolsters mood, a desired outcome of depression treatment.¹

Folate also improves mental vitality, a result that is of outmost importance since stress tends to cause low mental energy and subsequently, lack of motivation. General lack of drive greatly impairs a person's ability to handle everyday tasks. Additionally, folate promotes proper function of the nervous system hence improving mental vitality and enhancing cognitive health. Improvements in these areas put the body in a very advantageous position to cope with stress. The positive influence of folate on cognitive health is particularly important for shielding against the negative impact of stress on the cognitive system. Plus, folate is essential for suppressing homocysteine. In large amounts, this hormone impairs brain function and worsens stress.

Spinach has vitamin K as well and this nutrient only strengthens the stress fighting powers of spinach. Among its many functions, vitamin K boosts brain power. Considering that stress impairs brain strength, the presence of vitamin K is clearly highly advantageous. Vitamin K is also able to support cognitive function which helps with memory and concentration, key areas adversely affected by continuous stress.

To get the most out of spinach, it is important to opt for spinach that is organic and free of genetic modification. Organic food devoid of genetic modification always has optimal balance of nutrients. Food exposed to genetic modification, chemical fertilizers, and pesticides is nutritionally inferior and does not offer the full range and levels of nutrients that are needed by the body. Additionally, fertilizers and pesticides have been linked by several studies to cancer and other health problems.

Fermented foods

Fermented foods contain probiotics or healthy bacteria. A continuously growing body of research shows that healthy bacteria confer a multitude of benefits including mental wellbeing. Apparently, probiotics influence brain activity and having an imbalance in gut bacteria has an adverse impact on mental activity

thus disrupting mood and increasing stress. Probiotics are also believed to calm the brain and positively affect the way people process emotional information and this is extremely important for containing stress related to emotional situations.

There is also a connection between cortisol levels and composition of gut bacteria. Cortisol is a stress hormone and in large amounts it is associated with stress, anxiety, and depression. Healthy gut bacteria keep cortisol levels under control. Therefore, lack of probiotics increases cortisol, consequently triggering stress, anxiety, and depression. This connection between gut bacteria and cortisol clearly demonstrates that eating fermented foods is an effective way to lower cortisol. The ability of probiotics to influence cortisol activity is supported by credible research including an important study which concluded that eating foods rich in probiotics results in lower cortisol levels.²

Probiotics come from plant sources as well as dairy sources. Maheu, a fermented drink made from maize is a great example of plant based probiotic-containing foods. However, the traditional recipe of making maheu is a healthier source of probiotics than the commercialized version of the drink. Maheu drink found on store shelves contains unhealthy additives which make the drink unhealthy altogether. Around the world, fermented plant foods include sauerkraut (fermented cabbage), kombucha (fermented tea), kimchi (a mixture of fermented chillies and fermented cabbage), and miso (fermented soy beans)

Yogurt, fermented milk, and unprocessed cheese are fermented foods derived from dairy. However, in order for fermented dairy to be a reliable source of probiotics it has to be raw. Even though dairy is pasteurized in a bid to get rid of harmful bacteria, the good bacteria also get killed. This means that the nutritional benefits of fermentation are tremendously diminished. It is also wise to obtain probiotics by eating fermented food as opposed to taking supplements. Nutrients acquired by eating food always work better than taking supplements to access the same nutrients. And in order to keep probiotics functioning in an optimal manner, a high fiber diet is imperative because fiber nurtures probiotics. In the absence of fiber, probiotics are unable to function and survive for a long time.

Mushroom

Mushroom is another food ideal for dealing with stress. Vitamin D is a prominent nutrient in mushroom that contributes to fighting off stress. A number of studies have indicated that vitamin D is an effective mood booster. Stress tends to lower mood and taking vitamin D containing foods helps counteract the mood lowering effect of stress. Additionally, the mood enhancing properties of vitamin D play an important role in preventing depression brought about by uncontrolled stress. The connection between

vitamin D and depression is so strong that vitamin D is said to be lacking in people with depression. Also, some experts recommend vitamin D for treating depression patients. An Oregon State University study was able to demonstrate that there is a relationship between low levels of vitamin D and depression in otherwise healthy young women.³

Oats

Endowed with different nutrients that work effectively to ease stress, oats are the go-to food for containing stress sustainably. Firstly, there is vitamin B6 which is so important for managing stress that low levels of the nutrient are associated with stress and anxiety. Vitamin B6 is utilized by the body for production of serotonin, a hormone that is required in order to handle stress and offset anxiety. One more reason to eat oats for stress management is that vitamin B6 facilitates proper sleep which in turn eases stress and minimizes the likelihood of health complications related to unmanaged stress. Poor sleep can worsen stress. The important relationship between vitamin B6 and serotonin production is confirmed by the University of Maryland Medical Center which states that vitamin B6 helps the body make serotonin and norepinephrine, hormones that influence mood. Furthermore, vitamin B6 stimulates production of melatonin which regulates sleep cycle.⁴

Folate is also present in oats. As mentioned earlier, folate is essential for keeping stress under control and preventing depression. Moreover, oats have magnesium. Different studies tout magnesium for its immense stress relieving properties. The nervous system which is central to stress management benefits tremendously from magnesium-rich foods like oats. Magnesium keeps nerves in a very relaxed state, a situation that controls stress and eases anxiety. Additionally, magnesium encourages mood boosting hormonal activity by promoting serotonin production. There is also evidence showing that magnesium promotes proper sleep which happens to be an important stress management tool. People who get a healthy dose of sleep are in a better position to control stress than those who are sleep deprived.

Oats are also helpful for boosting mental energy, something people who are stressed are in dire need of. Starch in oats makes a major contribution to promoting mental energy because starch is required for the production of serotonin and other mood regulating chemicals that make it easier to control stress and stay calm. On the other hand, a diet that lacks starchy food may lead to an imbalance in mood regulating hormones characterized by inadequate serotonin and too much cortisol. Such an imbalance drastically lowers mood and causes mood swings, making it harder for a person to cope with stress. Being in this mental state also makes a person more likely to snap and get agitated. Another concern is that inadequate serotonin increases the likelihood of stress resulting in depression. Also, some experts say that low levels of serotonin lead to sleep deprivation and this is a situation that only worsens stress

because getting adequate sleep is important to lowering stress. Since starch is essential for serotonin production, eating starchy foods is essential for warding off depression. People who go on low carbohydrate diets, which typically restrict starchy foods are highly susceptible to stress and depression.

One more reason to eat oats and other healthy starchy foods is that a diet that lacks healthy starchy food kills healthy intestinal bacteria. Having inadequate health promoting bacteria only worsens serotonin deficit since healthy bacteria are needed for serotonin production. Including wholegrain oats and other healthy starchy foods in a diet greatly contributes towards maintaining a high level of healthy bacteria. As a result, the body is equipped with an important tool necessary for easing stress and preventing harmful consequences of unmanaged stress.

The presence of fiber in oats is an added advantage for stress control. There are multiple ways fiber is able to deliver this benefit. Firstly, fiber balances blood sugar, a situation that positively influences mood. Continuously fluctuating blood sugar triggers mood swings, making stress management that much harder. Mood swings also make it difficult to stay focused. Moreover, fiber in oats functions as a prebiotic because it nurtures healthy bacteria which are beneficial on mood. Lack of fiber creates a very hostile environment for the survival and function of healthy bacteria resulting in very low population and impaired function of healthy bacteria. As earlier stated, an imbalance in gut flora leads to poor stress management. Additionally, fiber promotes a feeling of relaxation by stimulating bowel movement. Being constipated can make a person feel agitated, anxious, and stressed.

A key advantage with oats is that they are usually sold in their wholegrain state with all parts of the grain, including the outer layer or bran, present. The bran has lots of fiber and other nutrients. Therefore, the quality of starch obtained by eating oats is of high standard. Starch provided by oats is unlike unhealthy starch found in processed starchy foods like donuts, cake, and white bread. These foods must be avoided because they destabilize blood sugar and increase stress. Flavored oats must also be avoided because they contain added sugar which aggravates stress. Healthy options for sweetening oats include raw honey or naturally sweet fruits like dates or prunes.

Bell peppers

Multi colored peppers are such a great addition to diet for controlling stress naturally. Vitamin C is a key nutrient that plays a leading role in neutralizing stress and peppers happen to be among the most abundant sources of this great nutrient. Vitamin C acts by controlling the amount of cortisol in the blood stream. Research also indicates that vitamin C promotes mental agility. This feature of vitamin C is

particularly relevant for managing stress because uncontrolled stress tends to make the mind sluggish. Furthermore, vitamin C effectively protects against brain degeneration and cognitive decline induced by chronic stress. Therefore, eating peppers and other vitamin C-rich food is a smart strategy for keeping stress at bay as well as maintaining sharp memory and sound learning capabilities. Other foods rich in vitamin C include guava, papaya, citrus fruits, and strawberries. The massive contribution of vitamin C-rich foods towards promoting brain health is widely touted. A study published in Pubmed Central was able to demonstrate that vitamin C is a key player in countering brain degeneration.⁵

Cashews

Cashews are loaded with nutrients that help tame stress. Vitamin B6 which maintains a healthy nervous system and also acts as an effective mood booster is present. An unhealthy nervous system may lead to irritability, sleeping problems, and nervousness. With lots of vitamin B6, cashews are well suited for maintaining calmness and prevention of low mood. Cashews are also rich in zinc, a nutrient that possesses properties that manage stress. Zinc stimulates the immune system, an activity that fulfills an important aspect of long-term stress management. Uncontrolled stress is known to weaken the immune system so eating cashews and following a generally healthy diet helps safeguard the immune system against the damaging effects of stress. Besides boosting the immune system, zinc is effective for preventing low mood and irritability which are typical characteristics of unmanaged stress. Also, zinc plays a remarkable role in regulating the brain's response to stressful situations.

Another stress relieving nutrient found in cashews is tryptophan; it is a great mood booster. With potent mood boosting properties, tryptophan in cashews minimizes the mood lowering effect of stress and wards off depression. Tryptophan also helps control feelings of unease, anxiety, and irritability. And when it comes to sleep, tryptophan has a valuable role too because it tremendously promotes proper sleep, hence contributing towards stress reduction. The positive influence of tryptophan on mood is mentioned in a study in Journal of Psychiatry and Neuroscience which clearly indicates that tryptophan boosts the level of brain serotonin.⁶

In addition to zinc and tryptophan, cashews supply magnesium, vital for controlling blood sugar and subsequently reducing stress. Plus, magnesium is so vital for sleep that magnesium deficiency is known to interfere with proper sleep, a situation that may induce or worsen stress. Magnesium also combats stress by keeping the entire body relaxed.

Mulberry

Mulberry fits well into a stress fighting diet and this is mainly due to the rich antioxidant content of this fruit. Some of the prominent antioxidants found in mulberry include anthocyanin, resveratrol, lutein, zeaxanthin, and vitamin C. Antioxidants promote dopamine production so by filling up on mulberry and other antioxidant-rich foods it is possible to keep mood up. Also, antioxidants improve cognitive function, a key aspect of stress management considering that uncontrolled stress tends to induce cognitive decline. Additionally, antioxidants quell brain degeneration. Many studies show that diets rich in antioxidants improve cognitive health and offset brain degeneration. For instance, a study appearing in Journal of Alzheimer's Disease indicates that increased consumption of antioxidant-rich foods in general and of polyphenols in particular is associated with better cognitive performance.⁷

Banana

Banana is a must-eat for easing stress. This fruit contains tryptophan which averts stress by boosting mood and promoting restful sleep. Banana also has B vitamins and these nutrients are extremely essential for calming the nervous system. Also present is potassium, a nutrient of outmost importance for keeping stress contained. By regulating heart beat, promoting a healthy nervous system, and preventing insomnia, potassium has a major input in alleviating stress. And like other potassium-rich foods, banana plays a critical role in controlling blood pressure and this is relevant to stress management because chronic stress raises the risk for high blood pressure. Potassium manages blood pressure by maintaining fluid balance in the body. There is a massive body of evidence showing potassium-rich foods to be important for blood pressure control. According to The American Heart Association, a diet that includes natural sources of potassium is important in controlling blood pressure because potassium lessens the effect of sodium.⁸

Cocoa

Cocoa is a power food for combating stress because it enhances mood by boosting production of serotonin and endorphins while also suppressing cortisol levels. The mood stabilizing powers of cocoa are also associated with reduction in anxiety levels. The high concentration of antioxidants appears to be the underlying reason for the stress relieving properties of cocoa. Various studies on cocoa and its health promoting properties show flavanols to be predominant antioxidants and they have a profoundly positive influence on cognitive health and mood function. Antioxidants in cocoa also protect the brain against degeneration due to chronic stress. Moreover, antioxidant-rich cocoa balances blood sugar and regulates blood pressure, two very important areas of health directly related to stress management.

The Harvard School of Public Health cites two separate studies showing the beneficial effect of cocoa on the brain. In one study, Italian researchers tested the impact of cocoa on people aged 61 to 85 and the results showed significant improvements in memory and other cognitive skills. The second study found that cocoa flavanols were associated with improved thinking skills in older adults with mild cognitive impairment. Both studies also found a positive relationship between consumption of cocoa flavanols and control of blood sugar and blood pressure.⁹

In order to get the best out of cocoa it is wise to use pure cocoa powder. And it is easy to make a healthy and tasty drink by simply mixing cocoa powder with some milk and water. Sweetening the drink with raw honey is also much healthier than adding sugar. Chocolate is a source of cocoa too but the problem is that it is sweetened with added sugar, making the overall nutritional content poor. Added sugar is the wrong ingredient altogether because it raises blood sugar levels, thereby aggravating stress. Dark chocolate is much better than regular chocolate because it has a higher concentration of cocoa and contains less added sugar. However, dark chocolate is still not as beneficial as pure cocoa.

Drinking water

Drinking water on a regular basis is important for getting rid of stress naturally. The brain and entire nervous system need to be adequately hydrated in order to cope with stress. Even mild dehydration is enough to increase anxiety and raise cortisol levels. So the simple habit of drinking water adds tremendous value to stress control. Stress itself tends to increase dehydration due to increased heart rate and heavy breathing, so it is very important to replace lost fluids through regular intake of water. Unstable blood pressure and uncontrolled blood sugar are conditions that may add to stress. Fortunately these conditions can also be kept under control by drinking water frequently. Furthermore, regular water intake is vital for maintaining bowel regularity which helps maintain relaxation.

Drinking two to three liters of water is recommended for achieving optimum hydration. This amount water must not be taken all at once but should be taken throughout the day. Exceeding four liters a day especially if this amount of water is taken all at once is very dangerous and can lead to water intoxication and sudden death.

Soft drinks and energy drinks are not sound sources of hydration because they contain added sugar and caffeine. These ingredients may dehydrate the body, thereby making stress more likely.

Strong social connections

Staying socially connected with other people can reduce stress levels. The human mind is designed to thrive on social interactions with others. A mind deprived of interactions with other people is socially isolated and highly prone to stress and poor mental and psychological health in general. Many studies are now showing that people who interact with others on a regular basis are more likely to live longer than people who are socially isolated. One reason for this outcome is that people who are socially connected have lower stress levels and therefore stronger immunity to disease. Apparently, positive social interactions boost production of stress relieving and immune boosting endorphins. An important study examining the impact of social connections on a person's wellbeing concluded that social ties have an effect on mental health. Positive social connections were associated with better mental and overall wellbeing.¹⁰

People who interact with others feel a sense of belonging and that kind of feeling makes people happy and greatly reduces stress risk. Even interacting by giving the needy may have a positive influence. Some researchers say that people who do volunteer work in the community are less likely to be overcome by stress. The Harvard School of Public Health states that there are studies showing that volunteering helps people who donate their time feel more socially connected, thus warding off loneliness and depression.¹¹

Bonds with other people are so important to mental wellbeing that there are studies arguing that having conversations with other people boosts memory. This goes to show the positive impact of social ties on cognitive function which happens to be a key area of consideration for successfully managing stress. Additionally, something as simple as mentioning a person's name promotes positive emotions for that person. Also, shaking hands and greeting other people is said to help improve people's sense of belonging and thereby reducing stress. And some of the activities people engage in like laughing while interacting greatly enhance mood by increasing endorphin levels.

Meditation

Meditation is a powerful stress buster that people experiencing stress must consider. Different studies indicate that meditation promotes endorphin production and this works well for keeping mood levels elevated. During meditation the mind is subjected to quietness and relaxation, promoting a calm mind devoid of anxiety. And since meditation deepens self awareness it makes people feel centered and in control of life. This outlook on life tremendously boosts mental energy and minimizes stress. What's

more, meditation is important for promoting peaceful sleep, and this is yet another means by which meditation is able counter stress

Sleep

Sleep is a very important tool for combating stress. Poor sleep is one key reason many people experience stress and fail to keep the condition under control. When sleep is lacking, cortisol levels rise while mood stabilizing hormones become inadequate, setting the stage for stress to happen. What's more, sleep deficit leads to mental exhaustion, irritability, lack of focus, anxiety, low mood, and poor cognitive performance. All these factors only exacerbate stress and increase the likelihood that other serious health complications will arise. Moreover, stress and sleep deprivation can easily form a vicious cycle where poor sleep makes stress management harder and the high stress levels go on to interfere with sleep. People who get adequate and restful sleep are in a much better position to prevent or control stress because proper sleep boosts mood, increases energy levels, improves focus, increases memory, relaxes the nervous system, and keeps the mind alert.

Research into the relationship between sleep and stress has revealed a very strong connection between these two factors. An article appearing in Metabolism Journal states clearly that sleep deprivation increases the amount of cortisol, a hormone that elevates stress levels. The article also indicates that sleep deficit has a profoundly adverse impact on the cognitive system.¹²

Proper sleep is defined as uninterrupted deep sleep lasting seven to eight hours. Sleep that lasts less than six hours is considered short and the kind of sleep that can complicate stress.

Exercise

Regular exercise is an important aspect of stress management. Exercise is a great mood booster because it stimulates the production of endorphins which tremendously ease stress and perfect the sense of wellbeing. In addition, exercise tremendously improves circulation, this increases blood and oxygen supply to the brain resulting in increased brain power. Exercise also improves memory and focus. What's more, exercise promotes proper sleep. People who exercise regularly are likely to wake up feeling refreshed and highly energized. Additionally, regular exercise is important for healthy digestion, a factor that is important for stress reduction. All these effects show what an important tool exercise is for fighting stress.

A sedentary lifestyle encourages high levels of cortisol and low amounts endorphins and other mood enhancing hormones. With this kind of hormonal imbalance, coping with stress becomes a very difficult task.

There is plenty of evidence showing that regular exercise is vital for reducing stress levels. According to The Anxiety and Depression Association of America, exercise is considered vital for maintaining mental fitness and it can reduce stress. It is further stated that studies show exercise to be very effective at reducing fatigue, improving alertness and concentration, and at enhancing cognitive function.¹³

While all types of exercise control stress, the greatest benefits appear to come from cardio exercise and mind-body workouts such as yoga, pilates, and tai chi. Cardio or aerobic exercise is any exercise that increases heart rate. Such exercises include jogging, brisk walking, and sporting activities that involve quick movements. During cardio activity, the body produces huge doses of endorphins. Yoga, Pilates, and Tai chi have been widely touted for their outstanding abilities to promote mental well-being. These mind-body exercises quiet the mind and involve a lot of mindfulness, putting the mind in a deeply relaxing state and stimulating production on endorphins.

Sunlight and natural light

Exposure to sunlight and natural light can also help ease stress. Getting some sunlight stimulates production of mood-boosting vitamin D. However, people should be mindful about over exposure to sunlight to avoid the risk of skin cancer. So it is important to strike a balance to get just enough sunlight. Experts say that fifteen minutes to a few hours of exposure to sunlight, depending on skin shade, is ideal. People with darker skin shade need longer time exposed to the sun compared to people with light skin.

It is also important to get plenty of natural light by spending time outdoors and finding ways to brighten up a room with natural light. This kind of exposure to natural light is a huge player in stress relief. Spending too much time exposed to artificial light instead of natural light can add to stress.

The importance of exposure to sunlight and natural light for mental wellbeing is outlined in an article published in Environmental Health Perspectives. The article confirms that exposure to sunlight stimulates vitamin D production and goes on to stress that exposure to natural light helps stimulate proper sleep later at night. This goes to show that exposure to sunlight and natural light tackles stress in more than one way; mood elevation, higher energy, and improved sleep quality.¹⁴

Furthermore, another study has linked exposure to natural light to improved workplace performance. This study found a strong relationship between workplace daylight exposure and office workers' sleep, activity, and quality of life. Workers getting plenty of natural light had better sleep and improved mental vitality, factors that resulted in improved workplace performance. This outcome was less likely among workers in windowless offices where natural light was lacking.¹⁵

Conclusion

There are so many reasons why people get stressed out like a demanding lifestyle, financial constraints, and illness. Taking the steps mentioned above does not mean these sources of stress will go away. However, following the above suggestions reduce the sources of stress by keeping poor lifestyle from being an additional reason for stress. Moreover, the steps put a person in a much better position to function productively, stay in control, and cope with stress. The suggestions also prevent stress from spiraling out of control to the extent that it gets to interfere with someone's ability to function. Poorly managed stress can reduce motivation to take on different tasks. Moreover, the outlined factors keep stress from escalating into more serious health complications. In other words, these steps help someone have control over stress as opposed to stress controlling someone's life.

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