

STRESS AND ITS MANAGEMENT BY YOGA

Madanmohan, Professor and Head,
Department of Physiology and Director,
Centre for Yoga Therapy, Education and Research

Sri Balaji Vidyapeeth - Mahatma Gandhi Medical College and Research Institute Campus

Pillaiyarkuppam, Puducherry - 607403, India

Email: drmadanmohan999@rediffmail.com

INTRODUCTION

Stress is an emotionally disruptive and psychologically challenging condition that is mentally and physically demanding. Fast life, negative emotions and outer, material development without a parallel development of our inner, spiritual resources results in imbalanced personality that is easily stressed when faced with demands of daily life. When there is demand and our ability to meet the demand is inadequate, we feel stressed. Hans Selye defined stress as “Non-specific response of the body to a demand”. Stress challenges homeostasis and leads to tension, distress and increase in rate of wear and tear.

Stress is an unavoidable *fact of life* and all of us experience it. But why make it a *way of life* when yoga, the best lifestyle ever designed is the perfect answer to stress and stress disorders? A change can be positive (beneficial) or negative (harmful). Similarly, stress also can be beneficial or harmful. Yogic attitude helps us to transform harmful stress (distress) into beneficial stress (eustress). Eustress is beneficial and productive as it stimulates us and we feel energised with heightened awareness and concentration. When we manage stress, we feel better and relaxed, look better and can manage our work and relationships in a better way. A stress-free day leads to restful night and the result is psychosomatic health and happiness.

CAUSES OF STRESS: A YOGIC PERSPECTIVE

The basic cause of mental stress is that “modern man” is out of balance due to materialistic lifestyle and lack of development of inner, spiritual resources.

Setting reasonable goals and striving to achieve them is desirable; being over-ambitious is not. Inflated needs in face of limited resources results in frustration and stress. Rajasik mind is always in hyperdrive and restless mode. Rajasik mode of aggressive competition results in waste of energy, disturbed mind and mental stress. Satvik lifestyle is key to prevent stress and promote holistic health.

Our body is a sensitive electrochemical complex that responds to our thoughts, emotions and actions. Lower, animal emotions like anger and fear are associated with limbic system (primitive brain). Higher, desirable emotions like compassion are a function of prefrontal brain which is highly evolved in humans. Negative emotions create stress, waste our time and energy and it is quite unwise to let them affect us. Yogeshwar Krishn says that “Lust, anger and greed are gates to hell and destruction and must, therefore, be eschewed” (Bhagavadgita, 16:21). Over-indulgence disturbs and weakens the mind making it easy for stressors to prey on it. From the yogic point of view, we should promote positive, desirable emotions and thoughts to counter negative ones (*pratipaksh-bhavanam*).

Home and job environment can be highly stressful. Lack of love and affection, cruel husband, nagging wife, irresponsible parents and problematic children can be a source of much stress. Exposure to occupational hazards like chemicals, noise and heat, problematic co-workers and exploiting employer are common causes of job-related stress.

Hormonal changes have psychophysiological consequences and women are prone to stress due to such changes at the time of puberty, pregnancy and

menopause. Chronic disease, pain, deformities, some psychiatric conditions and some drugs can produce mental stress, especially in the elderly. Caffeine, nicotine and diet pills stimulate nervous system and can produce mental stress. Hence, drugs should be taken only under expert medical guidance.

PSYCHOLOGICAL AND PHYSIOLOGICAL RESPONSE TO STRESS

Effects of acute stress are adaptive changes for maintaining homeostasis. Stress affects the whole person -body, mind and behavior. Many psychological and physiological responses/adaptations enable one to deal with the stressful situation. They are called "Fight or flight response" because they help an animal to fight or run away. The immediate physiological responses to acute stress are neuroendocrine changes for mobilizing forces that help in combating and overcoming the stressful situation. Stress response involves many parts of nervous system including prefrontal cortex, limbic system, hypothalamus, reticular formation as well as autonomic division of the nervous system. Pituitary-adrenal axis and adrenal medulla also play an important role in the stress response as a defence reaction. Stress also increases the secretion of antidiuretic hormone, thyroxine, glucagon and renin. These hormonal changes increase blood glucose and fatty acids which are important sources of energy. Increase in cardiac output and vascular tone raises blood pressure. Blood flow to muscles and heart increases while blood flow to abdominal viscera decreases. Muscle tone, body temperature and oxygen consumption increase. These physiological responses aim at supplying sufficient nutrients and oxygen to skeletal muscle, heart and brain and maintain homeostasis in face of the stress. Release of endogenous opioids results in stress analgesia. Stress increases arousal of cerebral cortex enabling a person to react more efficiently to the stressful event. These adaptive physiological responses help in dealing with the stressful situation and restoration of normalcy and homeostasis.

If the stress is severe/prolonged/repetitive and a person is unable to overcome it, undesirable consequences and health problems follow. Constant "red alert" taxes the neuro-endocrine system and physiological regulatory mechanisms disturbing homeostasis. The result is mental and physical sickness. Stress can drive a person into unhealthy behaviors like abnormal eating behaviors, drinking, smoking

and drug addiction. Excess cortisol secretion impairs immune mechanism resulting in poor defence against diseases like common infections, AIDS and cancer. A large proportion of patients seen in general practice have stress-related physical problems and majority of backaches and headaches are due to stress. Stress is the underlying, aggravating and/or precipitating cause of a number of diseases including psychiatric problems, insomnia, muscle pains, tension headache, backache, migraine, hypertension, ischemic heart disease, bronchial asthma, peptic ulcer, irritable bowel, impotency, menstrual disorders, rheumatoid arthritis and substance abuse.

YOGIC MANAGEMENT OF STRESS

Stress can not be avoided. Hence, it needs to be properly managed. The best way to manage stress is to strengthen our psychosomatic health so that we can efficiently resolve and overcome the stress. Management of stress by drugs has a number of drawbacks. Drugs have undesirable side effects, weaken the patient and at the time of acute stress, a person is likely to overuse/abuse the drug. In many cases, drugs do not work. And the question is: "Will today's drugs be used tomorrow also"? Conventional psychotherapy and instrumental biofeedback are expensive, time consuming and not always effective. Fundamental cause of mental stress is loss of inner harmony and peace. Hence, holistic yoga is the best way to prevent as well as manage stress and stress disorders.

Yoga is a wonderful tool for calming the mind and promoting psychosomatic health. By improving physiological functions and mental health, it enhances our ability to face a stressful situation. Yogic techniques influence our body as well as mind. Yogic philosophy and practice inculcates discipline, moral- ethical values and faith in Higher Power and improves our psychosomatic health. Relaxation is the fundamental and distinguishing feature of yoga. When practiced with awareness and breath-body coordination, every technique of yoga induces inner peace and relaxation. Shavasan, yoga nidra and meditation are special yogic techniques that have been proved to induce deep psychosomatic relaxation. They also increase energy level and improve thinking and decision making. Relaxation training improves autonomic balance and is effective in treatment of hypertension. Satvik diet promotes satvik state of mind. It may also affect gut microbiome. Gut-brain and gut-microbiome-brain relationship is an exciting field of study.

Slow stretch is an antidote for stress. Easy asans performed slowly and with breath-body coordination and meditative awareness are very effective in producing relaxation. Slow, rhythmic pranayams produce a significant decrease in oxygen consumption and promote psychosomatic relaxation. Through holistic combination of movement, breathing, stretch and meditative awareness, yoga encompasses several modalities that are capable of reducing the effects of stress.

CONCLUSION

In conclusion, yoga is very effective in prevention as well as management of stress and stress disorders. Living a yoga life results in strengthening and relaxing our body and mind, inner joy and resolution of mental stress. Yoga is a holistic science and one should adopt a judicious combination of simple asans, slow rhythmic pranayams and meditation.

SOME TIPS TO COPE WITH STRESS:

1. Avoid stressors/stressful situations. If you cannot, be realistic and adjust.
2. Practice acceptance. Jnan yoga and belief in Higher Power develops a positive attitude and helps us let go.
3. Learn to relax. Rhythmic pranayam breathing and mini-shavasana can be done any time and anywhere. Meditation keeps the mind calm and alert.
4. Eat sensibly. Avoid over/under eating and junk food. Nutritionally balanced and pure diet is called as satvik ahar that promotes healthy body and calm mind.
5. Be active in good deeds (satkarm). Then negative, stress-generating thoughts will not disturb your mind.
6. Have healthy hobbies. Gardening, music and social service are uplifting and relaxing hobbies.
7. Have your "Me time" when you will be only with the higher Divine Power and practice your daily yoga. That will make your mind and body strong, calm and relaxed that can easily face any stressful situation.
8. Get organised and avoid time urgency. Plan your work schedule well in advance and use your time and energy efficiently. Slow down a bit.
9. Talk to a supportive friend/relative. Healthy social engagements are good for mental health.
10. Watch your thoughts and habits and avoid substance abuse. Promote positive thoughts.
11. Laugh often and smile always. Smile relaxes facial muscles and sets a "feel good" chain reaction.
12. Adaptogens are healing herbs that improve physical and mental performance. Tulasi is a commonly cultivated anti-stress tonic.