

# Stress and its Physiotherapy Management

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**ABSTRACT:** There are numerous definitions of stress but no set established medical definition. However, according to health and safety executive stress is the negative response an individual exhibits when excessive pressure or demands are placed on them. Additionally, stress is a response to being put under pressure or situation that place an individual under pressure that if left unaddressed can result in psychological, physiological and behavioral changes to an individual. In today's ultra-competitive environment students face more stress than ever, be it related to study, examination, peer teachers or parents pressure. Stress is a complex, dynamic process of interaction between a person and his or her life. It is a war one reacts physically, mentally, and emotionally to the various conditions. Physiotherapy is a professional field which requires students to attain diverse proficiencies, including acquisition of theoretical knowledge, clinical competencies and interpersonal skills. Physiotherapists use an initial assessment to clarify the nature of the nature of the problem and develop strategies and treatment which are acceptable to the individual. Research continues to indicate a positive correlation between a person's ability to cope with stressors and likelihood of disease during their lifetime.

Stress can be divided into two categories: Distress and Eustress. Distress is the negative response to stressors whereas eustress is the positive response to stressors. When an individual is distressed they experience negative psychological states such as frustration, low satisfaction an alienation that eventually result in work and social loss as well as negatively effects on their physical and mental well-being. Physiotherapists offer a number of stress management techniques and treatments which can help to improve the worker's health and well-being. Physiotherapists with a special interest in stress management can offer many different types of relaxation therapy including guided imagery, progressive muscle relaxation, breathing techniques, thought stopping, stretching, massage and general fitness advice. Physiotherapy can assist by reducing muscle tension, increasing vitality and decreasing reported tiredness, improving concentration span, improving feeling of general wellbeing, decreasing blood pressure, Reducing risk of cardiovascular disease, improving attitude to work & leisure activity, Reducing pain states such as headache, chronic pain syndrome and work related anxiety, possibly decreasing dosage of psycho active medication.

**KEYWORDS :** Stress , Mental health , Physiotherapy , Physiotherapists , Pressure , Well-being .

## INTRODUCTION:

Stress is the debilitating effect caused by constant pressure both at work and home are a modern phenomenon. The physical, environmental and social distress causes internal stress state, can then lead to various responses. On one side, it can result in number of physical and bodily responses such as hopelessness, sadness, irritability and general feeling of not being well, unhappiness and dissatisfaction .In ancient times the energy generated by the stress was utilized in physical action. Stress may be defined as a state of threatened homeostasis, which is counteracted by adaptive processes involving affective, physiological, biochemical, and cognitive - behavioral responses in an attempt to regain homeostasis.

## WHAT ARE THE CAUSES OF STRESS?

There are many possible cause of stress. This is because every individual is different and responds to different situations differently.

However, let's look at some common causes that escalate stress levels in our daily lives:

- **Stress related to work:** This could be related to your boss giving you stress, completion of an important project, risk of looking for a job, lack of career growth, etc .
- **Financial reasons:** This is a major reason for stress to dwell across the globe. People stress over not being able to achieve financial stability, rent issues, salary issues, and the burden of hospital bills after a sudden tragic medical emergency, etc.
- **Social reasons:** Every day we encounter stressful situations, with our loved ones, strangers, etc this could include break-ups, divorces, social boycott, etc.
- **Personal reasons:** People can be stressed about virtually anything. This could relate to your favorite football team losing an important match, or not being able to do something you've really wanted to do, for example you want to take a vacation, but cannot due to family.
- **Global reasons:** This could include stress related to a mass population. The case of Syria causes stress to not only Syrians but also all those who are concerned for them. Another example would be global warming.

## WHAT STRESSORS DO TO THE BODY.

Hans selye (1956 to 1976) termed the body's response to stressors as GENERAL ADAPTATION SYNDROME (GAS) .

GAS consists of three stages:

1. The Alarm Reaction – The alarm reaction is essentially the emergency response of the body. In this stage, prompt responses of the body , many of them mediated by the sympathetic nervous system prepare us to cope up with the stressors . The activity occurs in the body's hormonal system and in both the autonomic and somatic parts of the peripheral system.
2. The Stage of Resistance – If the stressor continues to be present, the stage of resistance begins, where in body resists the effects of the continuous stressor . However, the resistance to new stressors is impaired during this stage.

During this stage certain hormonal responses of the body are an important line of defense in resisting the effects of stressors. ACTIVATING SHOT OF ADRENALINE ACTH Stimulates cells in the cortex of Adrenal glands so that corticoid hormones such as cortisol are secreted in the blood stream and adrenal gland is activated as the emergency response.

3. The stage of Exhaustion – In this stage, the body's capacity to respond to both continuous and new stressors has been seriously compromised . For instance , due to the actions of Cortisol , a person is no longer to ward off infection and may become sick or because of other stressor induced hormonal effects , stomach ulcers , diabetes , skin disorders , asthma , high blood pressure , increased susceptibility to cancer may occur at this stage .

**STRESS IS NOT ALWAYS A BAD THING** (as many people think) because some people thrive in it to get things done.

Here are some Stress response:

- Giving you extra strength to defend yourself. For example, applying sudden brakes to your vehicle to avoid an accident.
- Help you to meet challenges.
- Keep you on the toes during presentation at work.
- Sharpens your concentration when you attempt for game winning
- Drives your study for an exam rather than watching TV.

But beyond a certain point, stress stops being helpful and starts damaging your health, mood, productivity and quality of life.

### **ROLE OF PHYSIOTHERAPY:**

Physiotherapists use an initial assessment to identify the nature of the problem and make strategies and treatment which are important for the individual.

Treatment can be in the form of individual consultation, group relaxation classes, relaxation audio tapes or information sessions for the general public.

As part of the treatment program, physiotherapists provide close professional follow up with the patient to ensure a positive treatment outcome.

Physiotherapists with a special interest in stress management can provide various types of therapies for relaxation which includes Imagery progressive muscle relaxation, breathing techniques, thought stopping , stretching massage and general fitness advice .

Physiotherapy can be beneficial in stress management and can assist by:

#### **1. Reducing muscle tension**

Therapeutic exercises, massage and stretching can help to reduce the muscles. Our body is a psychosomatic system so above given things help a lot in removing stress from body and mind both.

#### **2. Improving concentration span**

Breathing and balancing exercises along with some yogic postures like dhyana mudra can improve your chances of enhanced concentration.

#### **3. Decreasing reported tiredness and increasing vitality**

Regularly going for a walk and general body exercises breathing exercises help a lot in increasing vitality and decreasing tiredness.

**4. Improving feeling of general well being**

Strength and endurance training improve feeling of general feeling of well-being . So indulging in this programme may help to reduce the stress.

**5. Decreasing Blood pressure**

Low salt food, avoid fried food, and general relaxations exercises and breathing exercises along with Yogasanas, help to improve a lot . Left nostril intake breathing have proved evidences to lower your blood pressure.

**6. Reducing risk of Cardiovascular disease**

Cardio exercises reduces risk of cardiovascular diseases in improve our cardiovascular health.

**7. Improve attitude towards work and leisure activity**

Work life balance, counseling may help to maintain the stress under control.

Reducing pain such as headache, chronic pain syndromes and work related anxiety through physiotherapy is possible and a lot of people are getting benefits in stress management.

Physiotherapy helps in all spheres of life so it also helps in possibly decreasing dosage of psychoactive medication.

**PHYSIOTHERAPY MANAGEMENT**

Physical therapy provides various stress management techniques and treatments which can help to improve the health of worker and improve well-being, whether it be specially designed .

- STRESS MANAGEMENT PROGRAMS
- EXERCISE PROGRAMS
- MASSAGE
- MUSCLE RELAXATION
- GENERAL FITNESS ADVICE

**STRESS MANAGEMENT THERAPY**

Strategy means a plan designed to achieve a particular long term aim. Forming a long term plan to achieve a specific purpose of stress management. Person's inner factors such as his frame of reference, motives, competencies or stress tolerance may the dominant role in determining his or her coping strategies.

For example, a person who has successfully handled adversity in the past, may be latter equipped to deal with similar problems in the future.

General principles of coping with stress depend on three interactional levels –

1. Biological level – there are immunological defences and damage repair mechanisms.
2. Psychological and interpersonal level – these are learned coping factors, self-defences and support from family and friends.
3. Sociocultural level – there are group of resources such as labour unions, religious organizations and law enforcement agencies. In coping with stress, a person is confronted with two challenges – meeting the requirement of the stressor and protecting himself from psychological or physical damage. These challenges can be met in two general ways:-

- **TASK ORIENTED COPING**

A task oriented response may involve, making changes in oneself, one's surroundings depending on the situation – for example, if one is faced with a situation of overwhelming physical danger such as forest fire, the logical task oriented response is to run.

- **DEFENCE ORIENTED COPING**

When a person's feeling of adequacy are seriously threatened by a stressor, a defence oriented response tends to prevail, that is – behaviour is directed primarily at protecting the self from hurt and disorganization.

Responses like denial and repression, relieve tension and anxiety and protect the self from hurt and devaluation.

Physiotherapists with special interest in stress management can provide many types of relaxation therapy including guided imagery , progressive muscle relaxation , breathing techniques , thought stopping , stretching , massage and general fitness advice .

## **EXERCISE PROGRAMS**

Inactivity can leave an individual feeling not so good about himself. Exercise is known to revitalize the mood and refresh the individual, plus it helps keep you fit and in shape.

- **1.Yoga**

Yoga postures are a form of strength training, making you more resilient and flexible, which in turn relieves physical tension. It also uses deep breathing, which triggers the body's relaxation response. Studies have shown that yoga reduces blood pressure too. But perhaps yoga's biggest benefit is the mental focus it promotes .

- **2.TaiChi**

Derived from an ancient Chinese martial art, tai chi (also known as tai chi chuan) links physical movement to the breath. Often called "meditation in motion," tai chi promotes a focus on the present – a mental absorption in which everyday worries fall away. Tai chi also increases flexibility and boosts energy, which result in an improved sense of well-being. Other benefits include better balance, more restful sleep and increased cardiovascular fitness.

- **3.Qigong**

Similar to tai chi, qigong is considered one of the cornerstones of Chinese medicine, along with acupuncture and herbs. Practicing qigong regularly can promote feelings of serenity, improve sleep and digestion, and increase energy. Like tai chi, qigong helps you be more present in your body

- **4.Walking**

It's easy to do and requires no classes or special equipment. Walking frequently can reduce the incidence of many of the stress-related conditions, including cardiovascular disease, high blood pressure and cholesterol, and type 2 diabetes. People with regular walking regimens also report reduced stress levels and a self-confidence that comes from taking an active role in their well-being.

- **5. Circuit Training**

Circuit training alternates weight-training moves with cardio, with short rests in between. The result is a high-intensity workout that offers the same benefits of longer exercise sessions in less time (30 minutes or less).It's short, sweet and pumps up your body's endorphin level, which improves your mood. Better yet, you don't have to stress about finding lots of time to fit a workout in.

- **6. Pilates**

Pilates is a series of exercises that emphasizes body awareness, core strength and proper alignment.

**MASSAGE**

Which helps the stressed individual relax, mentally and physically, uplifting their moods and making them feel better.

Massage helps to decrease stress by lowering the heart rate, relaxing muscles, and releasing endorphins.

Massage increases the temperature in the body and promotes relaxation. A deep tissue massage focuses on the deeper layer within the soft tissues. A deep tissue massage aims to relieve the tension by stretching and spreading muscle fibers and tissue in order to muscle to relax and loosen.

**MUSCLE RELAXATION**

This will induce confidence, self-reliance, mental relief and performance of the worker. It leads to Loosened muscles which increases movement, decrease pain and reduce stress .

**GENERAL FITNESS ADVICE AND STRESS THERAPY**

This is usually for working individuals who spend a lot of time on computers or on their desks.

This can lead to stiffness in lower back and neck. Massage is a great way to deal with stress and could help a lot if the facility is available within the office.

**RECREATIONAL ACTIVITY**

Industrial workers should have some recreational activity often for efficient wellbeing of mind like drama, club activities or music or dance programs, once in a while .

**CONSTRUCTION MEDIFICATIONS**

Construction should be free from heat, temperature and other physical hazards because it might disturb or alter the employee's physical and mental health.

**SMOOTH INTERPERSONAL RELATIONSHIP**

Psychological assessment of individual should be done on regular basis. There should be no quarrel among the workers and employees.

**CONCLUSION**

Medical Professionals and Mental health professionals recognize that most drug interventions treat only the symptoms like increased heart beats, urinating frequency and genitourinary symptoms. They do not deal with the fact that the person is reacting emotionally to psychological stress. This fact calls for psychotherapeutic interventions.

Therapists of various specialties agree in most general terms that reducing anxiety is the best way to alleviate the suffering from psychophysiological disorders. The particular disorder, whether it is coronary heart disease, essential Hypertension or asthma attack, is considered a consequence of anxiety or to be linked with it in some way.

In recent years researchers are exploring the clinical uses of biofeedback as a means of improving somatic functioning. Biofeedback provides people with prompt and exact information on heart rate, blood pressure, skin temperature and other autonomic bodily functions. The particular internal physiological process is detected and amplified by a sensitive

electronic recording device. The person knows instantaneously through an auditory or visual signal, the rate of the process, whether it is too high or too low or just right.

Numerous studies have shown that most people, if given the task for example of raising their heart rates or lowering their blood pressure, can do so with the help of Biofeedback.

Research continues to indicate a positive correlation between a person's ability to cope with stressors and the likelihood of disease during their lifetime. Physiotherapy can assist by reducing muscle tension, increasing vitality and decreasing reported tiredness, improving concentration span, improving feeling of general well-being, decreasing blood pressure, reducing risk of CVD'S, improve attitude to work and leisure activity, reducing pain states such as headache, chronic pain syndrome and work related anxiety, possibly decreasing the dosage of psycho-active medication.

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