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Types of Stress, Stress Responses

Stress

A term first coined by Hans Selye in 1936 to describe physical and mental tension (caused by physiological and psychological stimuli) that has been proven harmful to the body. Stress is a state of emotional turmoil, a loss of mental equilibrium brought on by the fear that you won't be able to cope with a threatening situation you face, or you're being forced to accept a situation you intensely dislike. Scientifically, there are four types of stress:

From the Environment

1. Thermal Stress

Thermal stress is caused by excessive cold or heat.

Stress Response: In cold weather, due to the effects of thermal stress, the body has to burn more fuel (thermogenesis) to maintain normal body temperature, so outdoor activity in cold temperature causes more fatigue. In hot weather, thermal stress produces more sweating, which causes the body to lose water and requires replacement of fluids to prevent dehydration. The severe stress of high heat can also bring the danger of heat stroke.

2. Chemical Stress

Gaseous Air Pollution: Pollen, ragweed, plant spores, bacterial spores and other allergens in the air, and irritating chemical fumes inhaled when using cleaning or chemical formulas are common examples of gaseous chemical stress.

Stress Response: Respiratory system (lungs, bronchial passageways) nose, sinuses and eyes are affected, resulting in the stress effects of coughing, sneezing, watering eyes, nasal congestion, and chest pain.

Particulate Air Pollution: Tiny particles in smoke from fires, harmful exhaust from factories, residue from coal-burning emissions are common examples of particle chemical stress.

Stress Response: Damage to respiratory system (lungs, bronchial passageways) leading to emphysema (a chronic medical disorder of the lungs in which the air sacs are dilated or enlarged and lack flexibility, resulting in breathing impairment and sometimes infection.

Liquid or solid Chemical Stress Contact: resulting in skin absorption of toxic chemicals.

Stress Response: Surface skin, internal organs, eyes can be dangerously affected.

From Personal Life

3. Physical Stress

Comes from the everyday wear and tear on your body. Walking, turning, bending over, stretching, and grabbing hold of objects requires effort from the muscles. Lift and moving objects puts additional physical stress pressure on the lower spine and skeletal system.

Stress Response: Common stress symptoms are backache, muscle stiffness, bodyache, tension headaches, muscle strains etc. Poor body mechanics at the workplace or home can cause Repetitive Motion Injuries (RPI), like carpal tunnel syndrome, chronic neck pain, lower back pain, etc.

4. Mental / Emotional Stress

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Mental / Emotional Stress - continued

When the individual feels threatened by a perceived danger, whether it is *real or imagined*.
When the individual is forced to accept conditions that are extremely distasteful.

Stress Response: Mental and emotional stress triggers the *fight-or-flight response*, an instinctual survival mechanism. When stress pushes your "panic button," the fight-or-flight response causes damaging and deadly reactions in your body.

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Sources: **Wikipedia** (<http://en.wikipedia.org>) **The Nature of Stress** Selye H., *Basal Facts* 7: 3ñ11, 1985; **Medline Dictionary** (<http://medlineplus.gov>)