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**Make the World Noble**



# THE EFFECTS OF STRESS ON OUR HEALTH

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**ARYA SAMAJ GREATER HOUSTON- HEALTH FAIR**



# Stressor



- Any event or circumstance that causes stress is called a stress
- Stressor as such does not cause stress but our perception of that event, the meaning we attach to it and the way we react to it leads to symptoms or diseases of stress





# Types of stressors



- **Biological stressors**
  - Any illness or disease
  - Disabilities
  - Injuries
- **Environmental stressors**
  - Poverty
  - Overcrowding
  - Natural disasters
- **Cognitive stressors**
  - Inability to solve a problem
  - Coming up with creative projects
- **Life change stressors**
  - Death of loved ones
  - Divorce
  - Trouble among family and friends

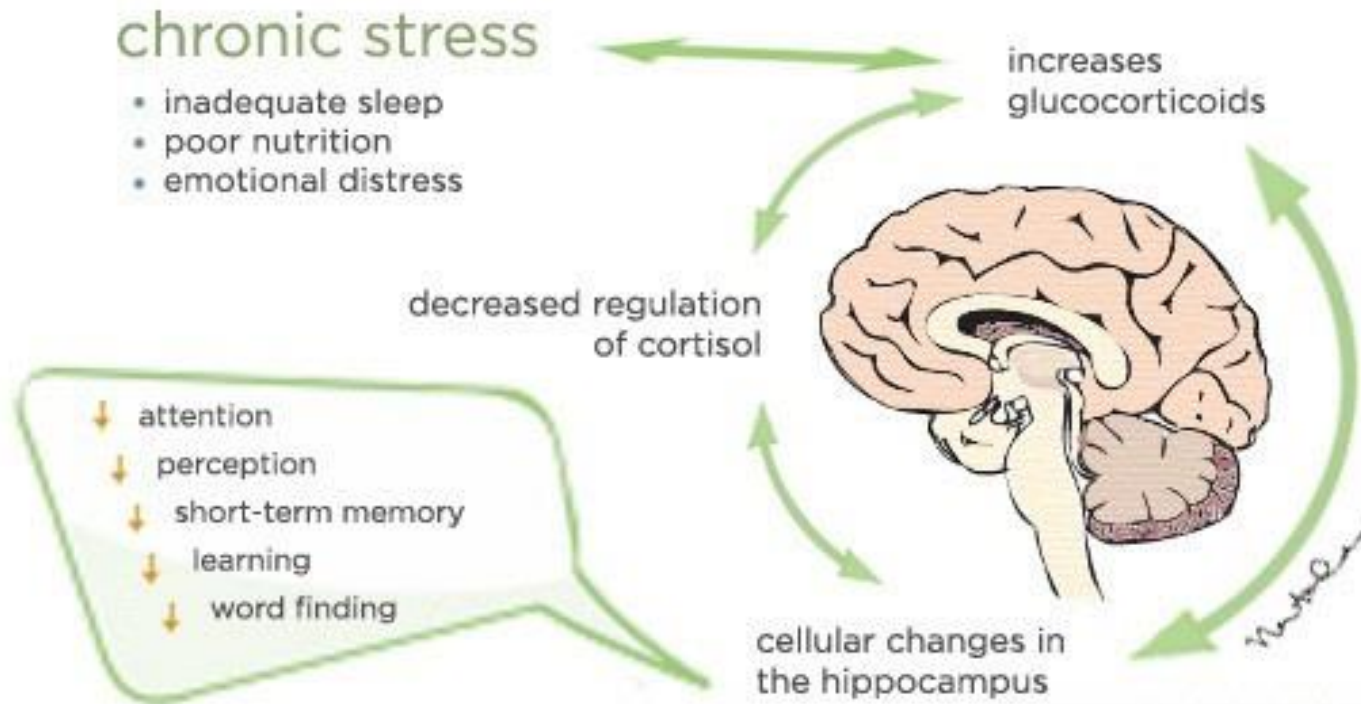




# Stress and Your Brain



## The stress-brain loop





# Stress and Your Body



- Stress is normal up to a point and can be optimal for certain performance related tasks
- Stress becomes a problem when it interferes with a person's ability to do daily life tasks over a period of a few weeks or impacts their health in a dangerous or risky way



# Stress and Your Behavior





# The Facts



- Stress is linked to the 6 leading causes of death including: heart disease, cancer, lung diseases, accidents, cirrhosis and suicide
- 43% of all adults suffer adverse health effects from stress
- Two thirds of all office visits to family physicians are due to stress-related symptoms



# Symptoms of Stress



- Feeling overwhelmed
- Anxious
- Mood swings
- Short temper
- Fatigue
- Headaches/back aches
- Tightness in muscles





# Unhealthy Behaviors Associated With Coping



- Overeating and/or unhealthy eating
- Not eating
- Excessive amounts of caffeinated beverages
- Smoking
- Use of alcohol or other substances
- Inactivity
- Not enough sleep or rest
- Over committing yourself



# Stress, Mental Health and Emotional Well Being



- Depression
  - 20% of the US population experiences and episode of depression in their lifetime
- Anxiety
  - 19 million American adults



# Stress and Heart Disease



- Stress can have direct effects on development of coronary heart disease as well as increase heart rate, heart contraction and blood flow
- Chronic stress causes
  - Increase in the levels of lipids
  - Increase chance of artery-clogging blood clot





# Stress and Immunity



- Stress weakens the immune system by diverting the energy required for its functioning to deal with the stress
- Cortisol, a hormone released during stressful situations affects the immune system greatly by preventing the production of cytokines
- During chronic stress, cortisol is over produced, causing fewer receptors to be produced on immune cells so that inflammation cannot be ended



# Stress and Hypertension



- Essential hypertension is a condition in which there is chronic high blood pressure, usually with no known biological cause
- An individual that shows an exaggerated cardiac response to a variety of stimuli is more likely to develop hypertension





# Stress and Diabetes Mellitus



- Cortisol causes increase in blood sugar level to help boost energy
- This may be compounded by unhealthy eating habits





# Stress and Cancer



- The hormones released during stress response can alter the numbers and types of immune cells, such as T-cells and natural killer cells produced by the body and also increase inflammation
- Since immunity and inflammation affect cancer, stress is thought to affect cancer on this basis



# Stress and Headaches



- There is intense constriction of blood vessels that supply the brain
- This is followed by distension to allow blood to flow back to the brain
- These distended blood vessels push on the nerves and cause headaches





# Stress and Asthma



- Asthma is a chronic inflammatory disease of the airways in the lung, in which the airway becomes constricted, therefore reducing the amount of air that can be inhaled.
- Psychological factors:
- Stressful situations
- Negative family environment
- Emotional arousal





# Stress and Irritable Bowel Syndrome



- It has been suggested that there is a disturbance in gut brain axis.
- The large intestine becomes irritated, and its muscle contractions are spastic, rather than smooth, and wave like.
- IBS Symptoms: bloated abdomen, cramping, alternating periods of constipation and diarrhea.



# Other Stress Related Disorders



- Ulcers
- Chronic fatigue syndrome
- Menstrual cycle disorders
- Memory loss
- Insomnia
- Kidney disorders