

# Kaiser Permanente's Relax, Release, Renew

# THE PHYSICAL AND EMOTIONAL IMPACT OF STRESS





# GROUP CLASS CONFIDENTIALITY AGREEMENT

Privacy is something everyone is concerned about when they come to a group class. Everyone who participates in the group wants what is said in the group to be treated with respect and complete discretion. Along with Kaiser Permanente's commitment to foster a respect for all participants, each participant individually has a responsibility to respect and protect each other's privacy.

Please share useful general information outside of the group, but what you hear and learn about individual group members should stay here.

Regional Health Education, Health Promotion and Women's Health Department Updated: May 27, 2010



# **Important Disclaimer**

- The information provided in this presentation is not a substitute for the advice of your personal physician or other qualified health care professional.
- Always seek the advice of your physician or other qualified health care professional with any questions you may have regarding medical symptoms or a medical condition.
- Never disregard professional medical advice or delay in seeking it based on information contained in this presentation.

#### **About Your Instructor**

KAISER PERMANENTE.

KAISER PERMANENTE.

KAISER PERMANENTE

- Cheryl Mirabella
- Health Educator



# **Learning Objectives**

#### This session will help participants:

- Understand what Stress is
- Understand what Stress Management is
- Understand at least one thing that can be done TODAY to manage stress more skillfully.





#### What is Stress?

- Stress is the mental and physical response of our bodies to the changes and challenges in our lives.
- Stress can be associated with most daily activities.







#### **Forms of Stress**

There are four main types of stress:

- Eustress is positive stress that
   presents opportunities for personal
   growth
- Distress is negative stress that can have a negative effect on health.









#### **Forms of Stress**

There are four main types of stress:

3. Acute stress is the most common form of stress.

4. Chronic stress comes when a person never sees a way out of a miserable situation.









#### **Acute Stress**

Acute stress is the most common form of stress.

- It comes from demands and pressures of the recent past and anticipated demands and pressures of the near future.
- It is anxiety and behavioral disturbances that develop within a month of exposure to extreme trauma.





#### **Chronic Stress**

- Chronic stress comes when a person never sees a way out of a miserable situation.
- Long-term exposure to stress can lead to serious health problems.
- Chronic stress disrupts nearly every system in your body.
- Long-term stress can even rewire the brain, leaving you more vulnerable to anxiety and depression in kaiser permanente.





# **Stress Symptoms**

**Irritability** 

No Sense of Humor

Excessiveness

Forgetfulness





**Aches and Pains** 

Nervousness

Fatigue





#### **Stress and Your Health**

- Stress is often described as a "disease of prolonged arousal" that leads to other negative health effects.
- 40% of deaths in the United States are related wholly or in part to stress.
- The list of ailments related to chronic stress includes heart disease, diabetes, cancer, headaches, ulcers, low back pain, depression, and the common cold.





#### **Habits and Patterns**

Emotionally Charged Relationships

There is a history

They drain your energy

Situations that 'push your buttons'

You find yourself reacting

Things you worry about, or can't let go of

You tend to express those feelings in certain ways – a
 grimace, or sigh, anger, anxiety





# **Emotional Impacts**

Our emotional 'bank accounts' are negative memories, habits and patterns that can contribute to stress and drain our energy. It can trigger feelings of anger, self-blame, etc., and lead to feelings of being stressed and overwhelmed.





- Anxiety
- Depression
- Panic attacks
- Feeling of guilt
- Increased cynicism
- Isolation/few close friends
- Feeling overwhelmed
- Unable to feel happy
- Feeling of hopelessness





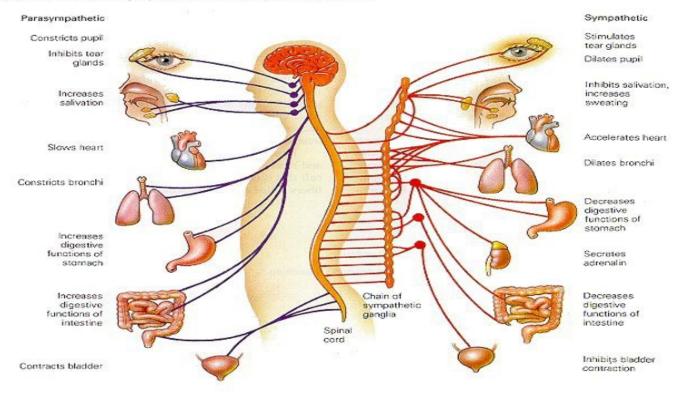




# **Physiological Impacts**

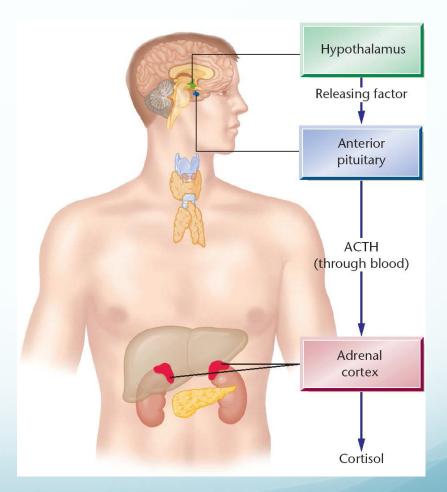
#### THE AUTONOMIC NERVOUS SYSTEM

The parasympathetic nervous system, which regulates day-to-day internal processes and behavior, is shown on the left. The sympathetic nervous system, which regulates internal processes and behavior in stressful situations, is shown on the right. Note that, on their way to and from the spinal cord, the nerve fibers of the sympathetic nervous system innervate, or make connections with ganglia, specialized clusters of neuron chains.



# The Hypothalamic-Pituitary-Adrenal (HPA) Axis

 The HPA axis is a feedback loop by which signals from the brain trigger the release of hormones needed to respond to stress. Because of its function, the HPA axis is also sometimes called the "stress circuit."





### **Physical Impact of Stress**

- Chronic stress causes chemical changes in the body.
   Research has shown that this change can lead to a loss of resistance to illness and disease.
- Common complaints of stress are frequent colds, neck and back pain, as well as severe headaches. Stress can worsen respiratory conditions, such as asthma and in particular, stress is dangerous for people with chronic illnesses, like diabetes because it can affect blood sugar level.

In addition, stress is an attributed factor to the following physical conditions:

- Hypertension
- Heart disease
- Ulcers
- Asthma
- Constipation
- Colitis
- and more. Doctors report nearly 90% of all visits are stress related.



# The Internal Processes Autonomic Nervous System

Sympathetic = Energizing Parasympathetic = Calming

Stress is this system reacting to a demand. Great if you are being chased by a lion, not so useful when your sitting in a traffic jam or 'stressing' about a problem.







### **Our Response to Stress**

- Our 'habits' and tendencies are part of who we are
- They allow us to function, even survive in our world
- Our neurological wiring triggers our reactions before we are able to cognitively process what is happening







# **General Adaptation System**

The General Adaptation System (GAS) has three distinct phases:

- 1. Alarm-which is when the body is exposed to a real or perceived stressor, becomes mobilized and prepares for battle.
- 2. Resistance-which is similar to the alarm phase in that the body becomes mobilized but at a less intense level.
- 3. Exhaustion-which is when the body's stress promotes adaptation, but a prolonged response leads to an exhaustive wear and tear on the body.

External Stress
Event —

#### YOU

Internal Stress
Event

Perception Appraisal & What Happens Next >

#### Stress Response:

- •HPA and Arousal, triggering
- •MINDFULNESS: awareness of body, muscle tension, breathing, thoughts and feelings.
- Awareness of context
- Cognitive Strategies

Quicker Recovery of Mental and Physical Balance.

KAISER PERMANENTE

#### **The Stress Reaction**

<mark>'Fight or Flight</mark>"

**BP and Pulse rate, HPA Axis,** 

Acute arousal

Substance dependence Alcohol, drugs, cigarettes, Caffeine, food

Internalization
& Inhibition of the Stress
Reaction

Overworking, overeating Hyperactivity or Avoidance Self destructive behaviors

BREAKDOWN:

Exhaustion, Loss of enthusiasm & drive, depression, susceptibility to genetic predispositions

Chronic Hyperarousal, HBP, Sleep disorders, chronic headaches and backaches, anxiety, increased sickness, fatigue



# **Stress Reactions in the Body**

- The body turns off 'long term' activities to concentrate on an immediate situation:
  - IMMUNE SYSTEM
  - DIGESTIVE SYSTEM
  - BRAIN ACTIVITY
  - HEART
  - METABOLIC





# **Immune System**

Stress reduces activity

- Guided imagery shown to boost T cell production
  - Used in Cancer treatment.

- Meditation practice correlates with vaccination response
  - Mindfulness meditation.





# **Digestive System**

- Cortisol causes fat to be stored in abdomen
- May trigger comfort food eating
- Glucose metabolism disrupted
- GI problems





# **Brain Activity**

- Initial sharpening of senses
- 30 minutes, start of depletion, diversion to muscles
- Neuron impairment
- Short term memory impairment
- Left Right brain integration impaired
- Sleep impairment





#### **Heart**

- High cholesterol
- High glucose and fatty acid levels
  - Cardiovascular disease
- Heart attacks.





#### **Metabolic Conditions**

- High blood sugar levels leading to insulin intolerance
- High triglycerides-CAD
- Energy level erratic, increased fatigue
- Fat stored in the abdomen





# **Managing Stress**

Managing the External Environment:

Time Management

Communication

Support

Managing the Internal Environment:

Exercise

Diet

Attitude

Relaxation and Mindfulness







# **Time Management**

- Ask yourself:
  - "Am I doing what I really need to be doing to have a satisfying and productive life?"
    - If not, it's likely to be a poor use of your time, no matter how well or efficiently you are getting it done.
- Which means you have to spend some time thinking about this:
  - WHAT IS YOUR DEFINITION OF A SATISFYING AND PRODUCTIVE LIFE!!!





# **Application to Relaxation**

- Focus on something occurring in the present moment –
   a word, your breath, simple movement, imagery.
- You WILL get distracted. Observe where your mind went and gently return your attention to your point of focus.
- Let go of judging and return over and over to the present.





# **Relaxation Techniques**

- Deep Breathing
- Progressive Muscle Relaxation
- Mindfulness
- Yoga/Tai Chi
- Massage Therapy





#### Resources

- www.kp.org/listen Guided Imagery
- National Institute of Health <a href="http://www.nichd.nih.gov/news/releases/stress.cfm">http://www.nichd.nih.gov/news/releases/stress.cfm</a>. Last Update: 07/21/2006.
- http://www.stressmanagementreview.com





#### QUESTIONS???

#### Thank You and Be Well!

