

*HSS1101D: Determinants of Health*

**Psychological Determinants of Health**  
**MANAGING STRESS:**  
**Towards Prevention and Control**

**February 3, 2012**

**\*NOTE:** Slides in this lecture are primarily taken/modified from lectures of Prof Thy Dinh and the text *Health The Basics* by Donatelle & Thompson (2011). References for information taken from other sources is indicated at the bottom of or within the slides.

Université d'Ottawa | University of Ottawa



uOttawa

L'Université canadienne  
Canada's university

**Speaker:**  
**Siva Ramoju**



uOttawa.ca

# Learning Objectives

- Definition: stress, stressors, and stress reaction
- Explain the General Adaptation Syndrome (GAS) and describe responses to perceived threats
- Discuss sources of stress, particularly stressors faced by students
- Identify techniques for managing stress



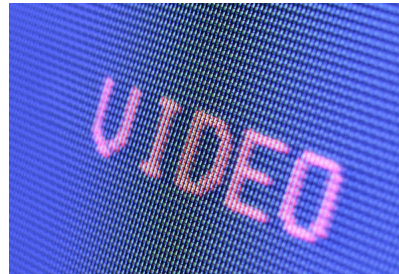
# What is Stress ?

- **Stress:** Our mental and physical responses to the demands placed upon us
  - in itself, stress is neither positive or negative
  - our response to it can be positive or negative
- **Stressor:** a physical, social, or mental event or condition that forces us to adjust to it
  - **adjustment** is the attempt to cope with a situation
  - **strain** is the wear and tear on the body and mind that may occur during adjustment to a stressor

# Types of Stress

- Stress can provide opportunities for personal growth and lead to personal satisfaction
- **Eustress**: positive stress that results from positive situations
  - e.g., getting married, starting a career
- **Distress**: negative stress, mainly from situations that are hard to handle
  - e.g., exhaustive work, financial problems, illness

# Video: Stress and Disease



- **Early-Life Stress, Epigenetics, and Disease with Dr Patrick McGowan (7:06)**
- **Linking mental health indicators to promoting mental health in early life (33:09) - OPTIONAL**

<http://www.youtube.com/watch?v=B20NIPvyXPA>

<http://www.youtube.com/watch?v=3uruL2jSblQ>

## **Optional Background Info:**

[http://kidshealth.org/parent/positive/issues\\_2011/2011\\_epigenetics.html](http://kidshealth.org/parent/positive/issues_2011/2011_epigenetics.html)



# Stress and Impaired Immunity

- The mind-body connection: physical responses
  - The long-term effects of stress on body systems can be devastating
  - Physiological response to stressors
  - “how stress gets under your skin”
- **Psychoneuroimmunology (PNI)**: Science that focuses on the relationship between the mind’s response to stress and the functioning of the immune system

# Psychoneuorimmunology (PNI)

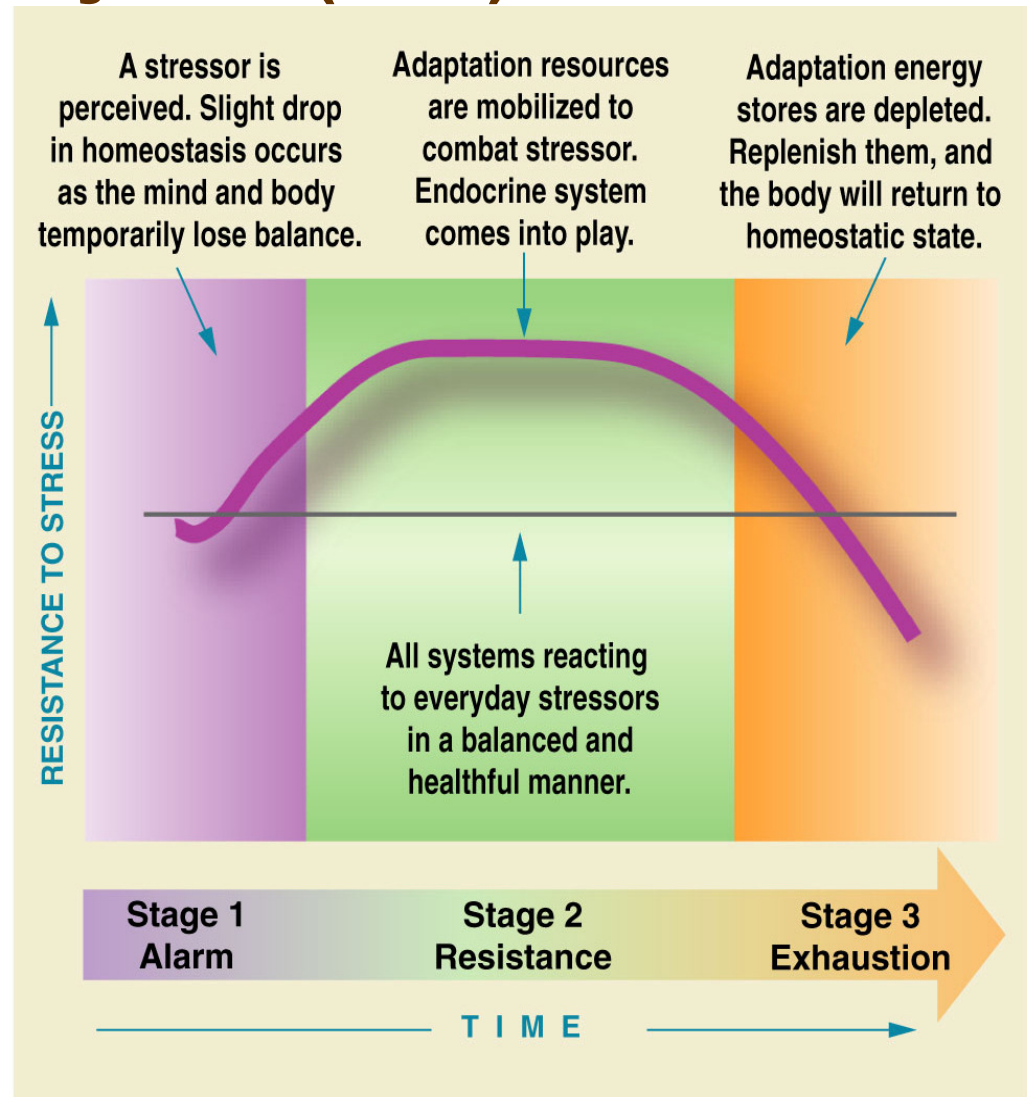
- During periods of prolonged stress, elevated levels of adrenal hormones (cortisol), destroy or reduce the ability of white blood cells (**Killer T cells**)
- Leads to suppressed immune system and increases risk of illness
- People differ in their ability to adapt to stressors



# General Adaptation System (GAS)

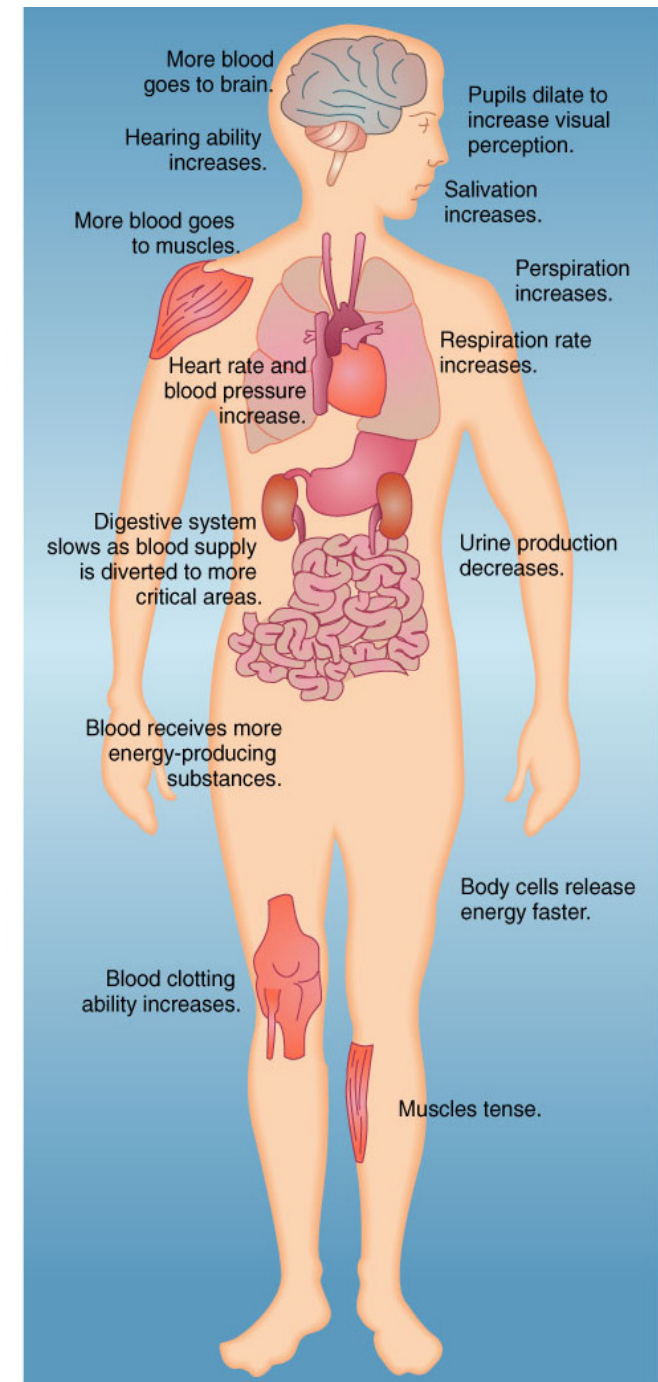
Pattern followed by our physiological and psychological responses to stress

- Alarm Phase
- Resistance Phase
- Exhaustion Phase



# General Adaptation System (GAS)

- **Alarm Phase**
  - Autonomic nervous system (ANS) prepares body for fight or flight
- **Resistance Phase**
  - Body reacts to stressor to regain a balanced physical and mental state
- **Exhaustion Phase**
  - Depletion of energy associated with stress response
  - Chronic stress depletes energy stores and may lead to burnout or serious illness

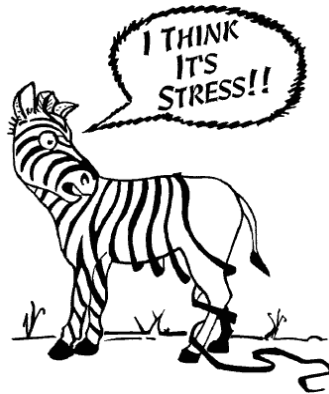


# General Adaptation System (GAS)

- **ANS** – portion of the central nervous system that regulates the bodily functions and is not normally consciously controlled
- Two branches: sympathetic nervous system (**SNS**) and parasympathetic nervous system (**PNS**). Two work in opposition to restore homeostasis
- Long-term stress can cause this balance to become strained resulting in chronic physical and mental problems.

# Psychological Sources of Stress

- **Change** – in normal routine; the more stressors you have, the more likely to experience negative health effects
- **Pressure** – feeling forced to speed up, slow down, intensify, or shift direction of our behaviours to meet higher standards
- **Inconsistent goals and behaviours** – conflict between goals and behaviours e.g. want good grades, but don't study



<http://www.kalavati.org/how-does-stress-affect-health.html>

# Psychological Sources of Stress

- **Conflict** – when we are faced with simultaneous existence of incompatible demands, opportunities, needs, or goals
- **Overload** – a condition in which we feel pressured by constant and overwhelming demands made upon us
  - **Burnout** – physical and mental exhaustion as a result of the continuous experience of overload



# Sources of Stress

- **Other Forms of Psychosocial Stress**
  - e.g., problems adapting, frustration, discrimination, socioeconomic events
- **Environmental Stress**
  - Results from events occurring in the physical environment.
    - one time events such as natural and industrial disasters
    - background distressors such as noise and heat

# Sources of Stress

## Self-imposed Stress

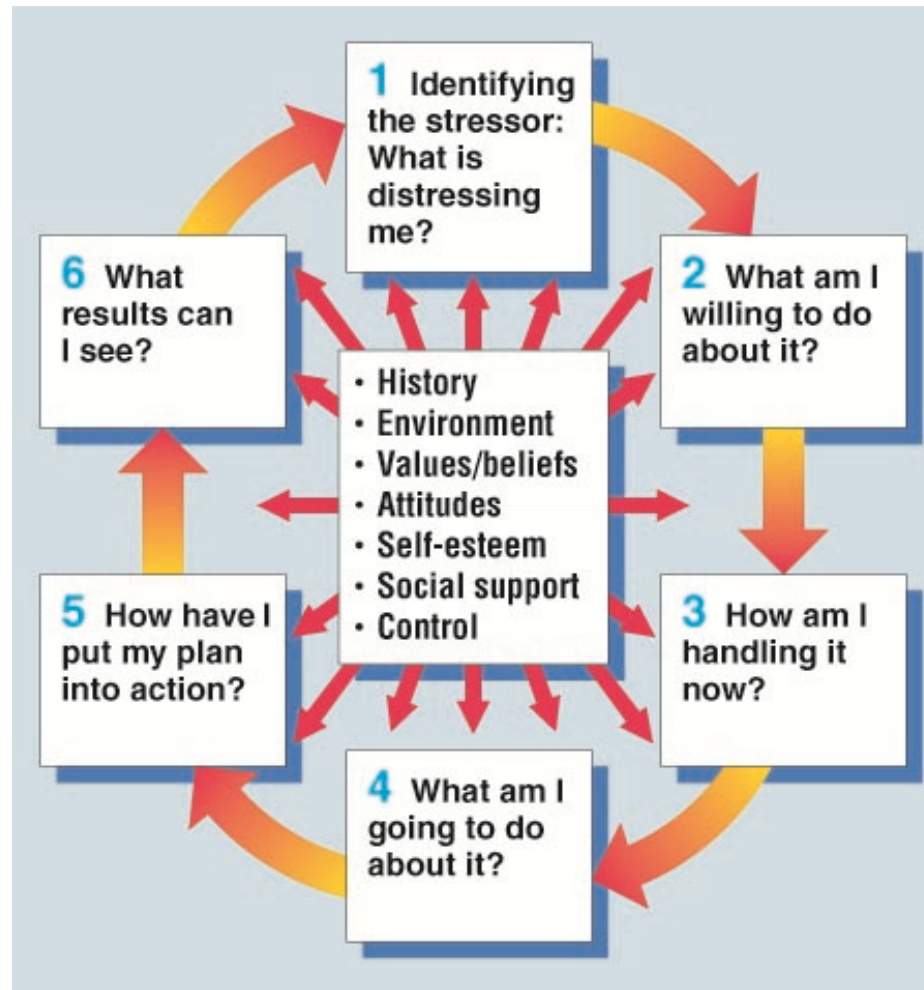
- Self-Concept and Stress
  - cognitive stress system governs our emotional response to stress
- Personality Types and Hardiness
  - type A, B, and C personalities each respond differently to stress
- Self-Efficacy and Control
  - belief in one's skills and abilities

# Stress and the Post-Secondary Student

- **Symptoms of Stress Overload**
  - Difficulty with classes
  - Relationship problems
  - Frequent mood changes
  - Sleeping difficulties
  - Lack of interest in social activities
  - Use of drugs or alcohol to avoid stress
  - Intolerance



# Managing Stress



# Stress Management

- Managing Emotional Responses
- Learning to **Laugh** and **Cry**
- Managing Social Interactions
- Making the Most of Support Groups



<http://wallbuilder.files.wordpress.com/2011/07/happy-sad-face.jpg?w=300&h=241>

# Stress Management

## Taking Mental Action

- Change the way you think.
  - worry constructively
  - regard life as fluid
  - consider alternatives
  - focus on the positive
  - break large tasks into smaller pieces

# Stress Management

## Taking Physical Action

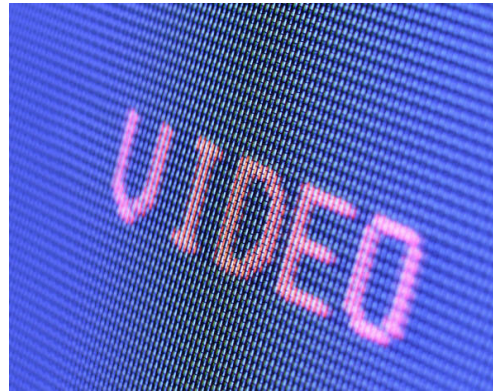
- **Physical activity**
  - releases hormones that enhance mood
  - reduces the stress response
- **Relaxation**
  - helps refocus energies
- **Eating well**
  - provides stamina
  - poor eating creates distress in the body

# Stress Management

## Learning Time Management

- Clean off your desk
- Never handle papers more than once
- Prioritize your tasks
- Avoid interruptions
- Do not be afraid to say no

# Video: Stress Management



- **Managing Stress - Brainsmart – BBC (2:24)**

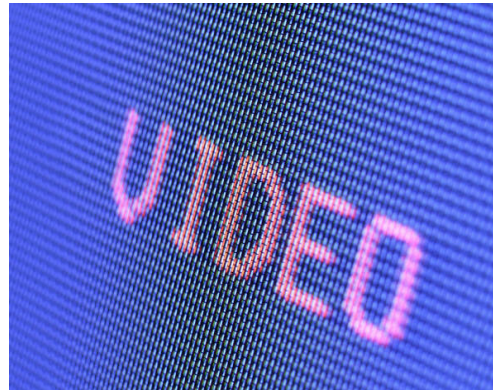
[http://www.youtube.com/watch?v=hnpQrMqDoqE&feature=r  
elated](http://www.youtube.com/watch?v=hnpQrMqDoqE&feature=rrelated)

# Stress Management

## Using Alternative Stress Management Techniques

- **Massage therapy**
  - gentle to aggressive treatments to assist with relaxation
- **Meditation**
  - relaxation technique that involves deep breathing and may involve visualization

# Video: Foods that reduce stress



- **Foods That Reduce Stress (1:10)**

<http://www.youtube.com/watch?v=yrH3QpfpPF4&feature=related>