

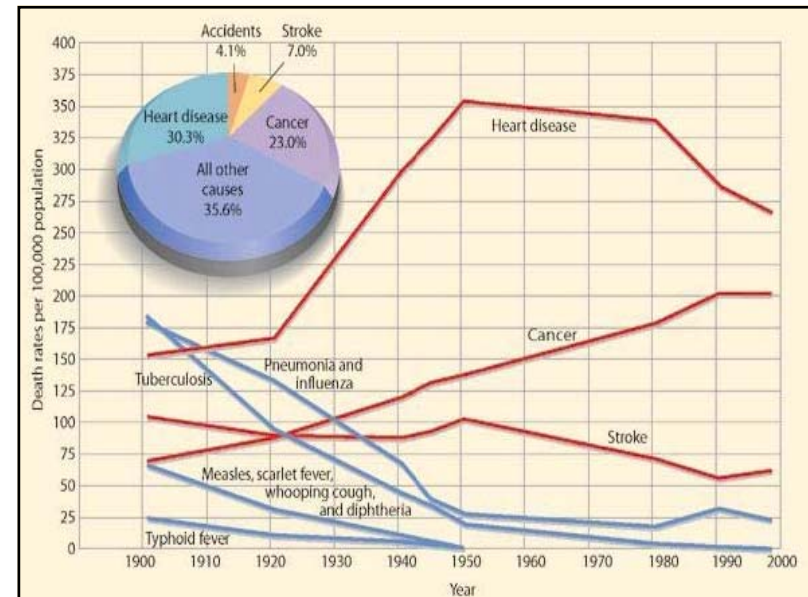
Stress, Coping, & Health

Biopsychosocial Model

- Physical illness caused by interactions between biological, psychological, and sociocultural factors
- Biology operates in a psychosocial context

Changing pattern of illness

- Trends in the death rates for various diseases during the 20th century reveal that contagious diseases (shown in blue) have declined as a threat to health. However, the death rates for stress-related chronic diseases (shown in red) have remained quite high.
- The pie chart shows the results of these trends: three chronic diseases (heart disease, cancer, and stroke) account for 61.9% of all deaths.



STRESS

- A universal part of the human experience necessary for survival
- Affect every person regardless of age, gender, race, economic condition, or educational level
- Can be positive or negative
- Stressors:
 - Disruptive forces operating within or on any system

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Stress

- Any circumstances that threaten (real or perceived) one's well-being, and subsequently tax one's coping abilities
- Subjective in nature (e.g., public speaking, flying, being supervised)
- Seriousness of impending surgery unrelated to subjective stress

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Positive vs. negative stress

- Stress can be positive when it helps us survive by increasing our concentration and focus. Increased arousal returns to normal after meeting the challenge or threat.
- Stress becomes negative when your body stays aroused (i.e., arousal gets higher and higher) and doesn't relax. Stress becomes chronic and may produce physical and emotional damage

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Stress Definition

- A negative emotional experience accompanied by predictable biochemical, physiological, cognitive, and behavioral changes that are directed either toward altering the stressful event or accommodating to its effects.

Baum, 1990

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STRESS IS DETERMINED BY PERSON-ENVIRONMENT FIT

Depends upon how an event is appraised, and whether the person perceives themselves as possessing the resources needed to respond to the event successfully.

- Primary Appraisal:
 - Evaluating an event for its personal meaning
- Secondary Appraisal:
 - Focuses on possible coping strategies

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Types of stress triggers

- External (from outside the person)
 - e.g., job problems, change in environment, daily hassles (standing in a line)
- Internal (caused by what we think)
 - e.g., when we hold unrealistic expectations for ourselves (cognitive traps)

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Models of Stress

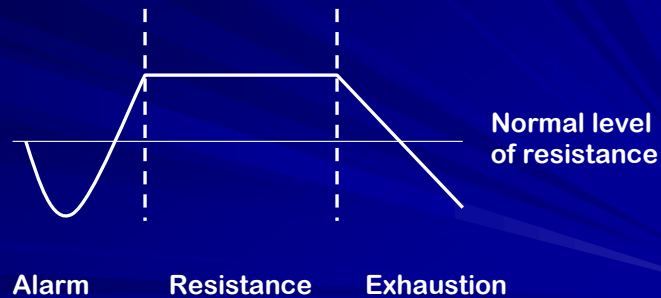
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“Fight or Flight Response”

Walter Cannon, 1932

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General Adaptation Syndrome



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Strengths and Weaknesses of Selye's model of Stress

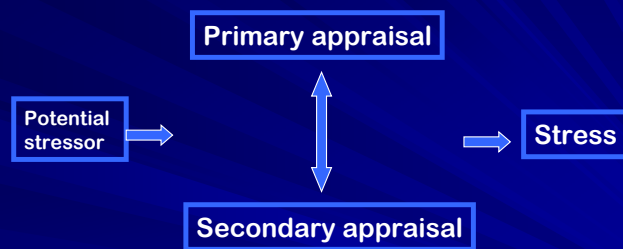
Strengths:

1. General theory for wide variety of stressors.
2. Physiological and environmental interaction.
3. Proposes physiological mechanism for relationship between stress and illness.

Weaknesses:

1. Limited role to psychological factors.
2. Assumes responses are uniform.
3. Thinks of stress as an outcome.

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Lazarus' cognitive-transactional model of stress

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Potential Responses to Stress

Physiological

Cognitive

Emotional

Behavioral

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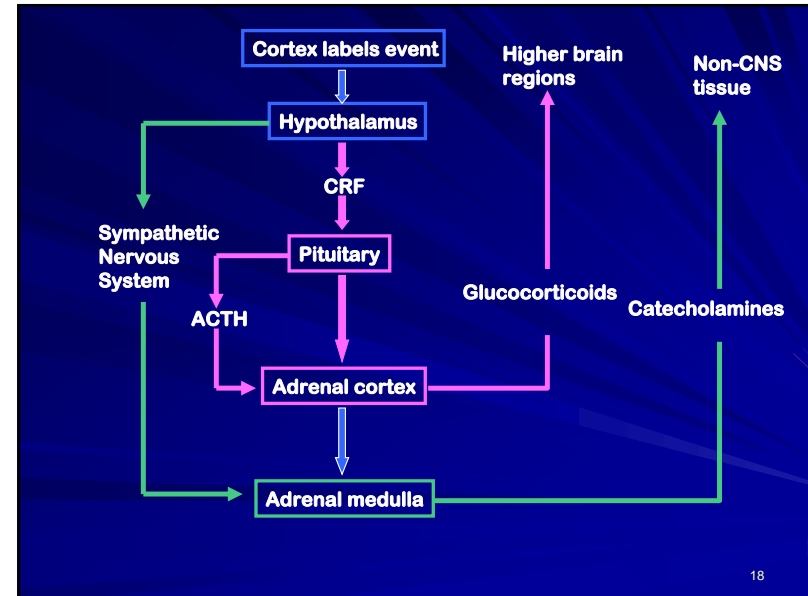
The Physiology of Stress

Two interrelated systems.

Sympathetic-adrenomedullary (SAM) system.

Hypothalamic-pituitary-adrenocortical (HPA) axis

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What do these changes mean?

Catecholamines

- have an effect on a variety of tissues
- related to changes in the immune system

Epinephrine & Norepinephrine

- increase in heart rate, blood pressure
- suppress cellular immune functioning

Cortisol (corticosteroid)

- decreased lymphocyte reponsivity
- destruction of neurons in the hippocampus

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Differences in Reactivity

Some people's bodies react more strongly to stress than others. These differences in reactivity are thought to be genetic, and may explain why some people develop hypertension and CHD and others do not.

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Why are some events more stressful than others?

1. Negative events are more stressful than positive ones.
2. Uncontrollable or unpredictable events are more stressful than controllable or predictable ones.
3. Ambiguous events are often perceived as more stressful than clear-cut events.
4. Overloaded people are more stressed than people with less tasks to perform.
5. Problems in central life domains are more stressful than in peripheral ones.

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