• Reactivity and allostatic load
  o Reactivity: acute change that occurs in autonomic, neuroendocrine, and/or immune responses as a result of stress
  o Allostatic load: physiological costs of chronic exposure to the physiological changes from repeated or chronic stress
    ▪ Also known as “wear and tear” on the body due to chronic stress
    ▪ Allostasis: stability through change
  o Allostatic load can be measured by:
    ▪ Decreases in cell-mediated immunity
    ▪ The inability to shut off cortisol in response to stress
    ▪ Elevated blood pressure
  o Criticisms of allostatic load theory
    ▪ Allostatic load index averages across several biological systems and may not point to clear disease processes
    ▪ Allostatic load levels may vary across samples and there are no clear norms or cutoffs on what is healthy/unhealthy

• Cell-mediated immunity
  o Immune response by cells (e.g. phagocytes, cytotoxic cells)

• Fibrinogen
  o A protein that is important in blood clot formation
  o Risk factor for heart disease independent of other risk factor (e.g. high cholesterol)

Lecture 3
• Stress measurement
  o Acute stress paradigm
    ▪ Lab-based
    ▪ Standardized protocol
    ▪ People performing stressful tasks become psychologically distressed and show physiological arousal
    ▪ Usually paired with measurement of biomarkers before, during, and after
    ▪ Combine elements of performance stress, social evaluation, uncontrollability
    ▪ Identifies individuals most vulnerable to stress
    ▪ Example: Trier Social stress test
  o Life event inventories
    ▪ Example: Holmes & Rahe scale
    ▪ Checklists of discrete events
    ▪ Criticisms:
      ▪ Do not account for timing, a person’s context, whether it was a welcome change or not
      ▪ Do not ask if the acute event is resolved or if it became chronic
      ▪ The relationship between scores on these scales and illness is modest
  o Perceived stress scales
    ▪ Subjective perspective is primary
Criticism: may be influenced by personality characteristics or response biases
  • Example: neuroticism

Daily hassles scales
  • Minor stressful events that lead to:
    • Psychological distress
    • Adverse physiological changes
    • Physical symptoms
    • Use of health care services
  • These are not necessarily harmful on their own but can accumulate to health problems if they are frequent
  • Their reporting is also affected by personality characteristics
  • Examples: being stuck in traffic, waiting in a line

Life stress interviews
  • Include central life domains (family, friends, work, finances)
  • Allow customization for each person
  • Can capture total stress exposure
  • Can incorporate objective ratings
  • Very time-intensive and costly
  • Keeping interviewers “reliable”

Chronic stress types
  • Work stress
    • Work and sedentary lifestyle
    • Work overload → karoshi
  • Role ambiguity and role conflict
    • Role ambiguity: occurs when a person has no clear idea what they are expected to do or how their work will be evaluated
    • Role conflict: occurs when a person received conflicting information about work tasks or standards from different individuals
  • Inability to develop satisfying social relationships at work
  • Lack of control over one’s work life
    • Demand-control-support model: high demands and low control, combined with little social support at work lead to stress
  • Effort-reward imbalance
  • Unemployment
  • Outcomes of work-related stress
    • Higher rates of absenteeism
    • Job dissatisfaction
    • Tardiness
  • Reducing stress at work
    • Minimize physical work stressors
    • Make jobs interesting
    • Reward workers for good work

Discrimination