

Pathology Class 1:

Homeostasis, Physiological Stress, Failure Modes and the Origins of Disease

Pre-Assessment Quiz: Pathology Week 1 (Ages 14-18yo)

Pre-Assessment Quiz – Pathology Week 1

1. Which statement best distinguishes *pathology* from anatomy and physiology?
 - a) Pathology focuses on naming body parts
 - b) Pathology studies normal biological processes
 - c) **Pathology examines disrupted structure or function and the body's response to it**
 - d) Pathology only studies infectious disease
2. Homeostasis is best described as:
 - a) A fixed internal state maintained without change
 - b) The absence of symptoms
 - c) **A dynamic regulatory process that responds to changing conditions**
 - d) The body's ability to avoid stress
3. Why is homeostasis described as "dynamic" rather than "static"?
 - a) Because the body is always unhealthy
 - b) **Because regulation requires constant adjustment to internal and external demands**
 - c) Because balance is never achieved
 - d) Because systems operate independently
4. Which scenario most accurately represents *early pathology*?
 - a) A broken bone that has healed completely
 - b) Short-term muscle soreness after exercise
 - c) **Repeated stress that exceeds the body's ability to restore balance**
 - d) Normal fatigue after a long day
5. Which explanation best describes the biological purpose of fever?
 - a) Fever damages invading organisms directly
 - b) Fever signals emotional distress
 - c) **Fever alters internal conditions to support immune activity**
 - d) Fever occurs randomly during illness
6. Two individuals experience the same exposure, but only one develops symptoms. Which explanation best reflects pathological reasoning?
 - a) **Internal physiological conditions influence response to stressors**

- b) One person is mentally stronger
 - c) Symptoms depend on awareness
 - d) Disease outcomes are unpredictable
7. Which factor would most directly affect the body's ability to recover from illness?
- a) Height and body size
 - b) Personality traits
 - c) External temperature alone
 - d) **Energy availability and regulatory capacity**
8. Why might suppressing symptoms without understanding their cause be problematic?
- a) Symptoms are always beneficial
 - b) Suppression increases disease severity
 - c) **Symptoms provide information about underlying physiological processes**
 - d) Symptoms are required for diagnosis
9. Which statement best reflects the role of symptoms in pathology?
- a) Symptoms indicate system failure
 - b) **Symptoms are adaptive responses signaling physiological strain**
 - c) Symptoms should always be eliminated
 - d) Symptoms are caused primarily by pathogens
10. Which statement best summarizes the core idea of Pathology Week 1?
- a) Disease occurs when germs invade the body
 - b) Health means perfect internal balance
 - c) Symptoms are evidence of weakness
 - d) **Disease develops when regulatory systems are strained or overwhelmed**