Physiology of Public Speaking

Public Speaking · Practice Test · 18 Questions

1. Which endocrine gland is primarily responsible for releasing adrenaline into the bloodstream during the 'fight-or-flight' response common in public speaking?

A) Pituitary gland
B) Adrenal gland
C) Thyroid gland
D) Pineal gland

2. What is the typical effect of high-stress levels during public speaking on the body's digestive system?

A) Increased nutrient absorption
B) Temporary inhibition of digestive processes
C) Faster gastric emptying
D) Hyper-activation of stomach acid

3. Which physiological symptom occurs during public speaking due to the body redirecting blood flow toward skeletal muscles?

A) Increased skin temperature in extremities
B) Dilation of the pupils
C) Peripheral vasoconstriction
D) Enhanced fine motor skills in fingers

4. What role does cortisol, released during the anticipation of public speaking, play in the body?

A) Decreasing blood sugar levels
B) Increasing glucose metabolism for energy
C) Lowering heart rate
D) Inducing immediate sleepiness

5. Chronic public speaking anxiety can lead to a sustained elevation of which neurotransmitter, often associated with heart rate acceleration?

A) Norepinephrine
B) Serotonin
C) GABA
D) Melatonin

6. Why do vocal cords often feel 'tight' or experience increased tension during a nervous presentation?

A) Dehydration of the mucosal layer
B) Contraction of the laryngeal muscles
C) Reduced blood flow to the larynx
D) Excessive production of saliva

7. What is the primary reason for 'dry mouth' (xerostomia) during a high-stakes public speaking engagement?

A) Over-hydration
B) Inhibition of salivary gland secretion by the sympathetic nervous system
C) Increased inhalation through the mouth
D) Rapid cooling of oral tissues

8. Which part of the brain initiates the initial stress response to the perceived threat of a public audience?

A) Prefrontal cortex
B) Amygdala
C) Cerebellum
D) Hippocampus

9. How does shallow, rapid breathing (hyperventilation) during public speaking affect blood chemistry?

A) It increases oxygen saturation in tissues
B) It lowers carbon dioxide levels, potentially causing dizziness
C) It increases blood pH levels
D) It decreases the heart rate

10. During a public speaking event, which physiological change is primarily responsible for the appearance of 'flushing' or redness in the face and neck?

A) Vasodilation of surface capillaries
B) Increased melanin production
C) Decreased cardiac output
D) Activation of sweat glands

11. What effect does the 'fight-or-flight' response have on the body's pupillary muscles?

A) Constriction to focus on notes
B) Dilation to increase light intake
C) Involuntary blinking
D) Paralysis of the iris

12. Which muscle group is most commonly affected by the 'tremor' effect often seen in the hands of public speakers?

A) Smooth muscles
B) Cardiac muscles
C) Skeletal muscles
D) Visceral muscles

13. Regular engagement in public speaking has been linked to the long-term regulation of which 'stress hormone'?

A) Insulin
B) Cortisol
C) Estrogen
D) Testosterone

14. What physiological function is suppressed during the 'fight-or-flight' response to prioritize immediate physical readiness?

A) Immune system response
B) Blood pressure regulation
C) Brain oxygenation
D) Muscle contraction

15. The 'butterflies in the stomach' sensation during public speaking is caused by:

A) A decrease in stomach acid
B) The reduction of blood flow to the stomach, affecting the enteric nervous system
C) Hyper-digestion of food
D) Spasms of the diaphragm

16. What is a verifiable physical impact of maintaining 'power poses' or expansive body language before speaking?

A) Increased testosterone and decreased cortisol levels
B) Immediate muscle fatigue
C) Increased bone density
D) Instantaneous drop in blood pressure

17. How does adrenaline affect the respiratory system during a speech?

A) It causes the bronchioles to dilate to increase airflow
B) It slows down the rate of breathing
C) It prevents the exchange of oxygen in the alveoli
D) It triggers chest muscle atrophy

18. Which involuntary physical response is a common side effect of the adrenaline surge experienced before stepping onto a stage?

A) Increased fine motor precision
B) Involuntary twitching of the eyelids
C) Temporary increase in body temperature and sweating
D) Increased production of digestive enzymes