

# Guyton hall physiology review 3e

## Regulation of Respiration

A stroke that destroys the respiratory area of the medulla would be expected to lead to which of the following?

- A) Immediate cessation of breathing
- B) Apneustic breathing
- C) Ataxic breathing
- D) Rapid breathing (hyperpnea)
- E) None of the above (breathing would remain normal)

**Answer: A**

When the respiratory drive for increased pulmonary ventilation becomes greater than normal, a special set of respiratory neurons that are inactive during normal quiet breathing then becomes active, contributing to the respiratory drive. These neurons are located in which structure?

- A) Apneustic center
- B) Dorsal respiratory group
- C) Nucleus of the tractus solitarius
- D) Pneumotaxic center
- E) Ventral respiratory group

**Answer: E**

The basic rhythm of respiration is generated by neurons located in the medulla. What limits the duration of inspiration and increases respiratory rate?

- A) Apneustic center
- B) Dorsal respiratory group
- C) Nucleus of the tractus solitarius
- D) Pneumotaxic center
- E) Ventral respiratory group

**Answer: D**

