

# Respiratory Regulation of blood pH

What will hypoventilation do to blood CO<sub>2</sub>?



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What will that do to blood pH?

↓ respiratory acidosis

What will hyperventilation do to blood CO<sub>2</sub>?



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What will that do to blood pH?

↑ respiratory alkalosis

**Stimulus = respiratory acidosis**

What sensors detect the change in blood pH?

chemoreceptors in aortic arch & carotid arteries (for blood pH)  
and in medulla (for CSF pH)

what is the integrating center that responds?

medulla (respiratory center)

What happens to minute ventilation in response?



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**Stimulus = respiratory alkalosis**

(same sensors and integrating center)

What happens to minute ventilation in response?



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