

Carbon dioxide and prediction



Acid-Base Balance Name Lab Time/Date Activity 1 Hyperventilation Describe the normal ranges for pH and carbon dioxide in the blood. Describe what happened to the pH and the carbon dioxide levels with hyperventilation. How well did the results compare with your prediction? Explain how returning to normal breathing after hyperventilation differed from hyperventilation without returning to normal breathing. Describe some possible causes of respiratory alkalosis.

Activity 2 Rebreathing

Describe what happened to the pH and the carbon dioxide levels during rebreathing. How well did the results compare with your prediction? Describe some possible causes of respiratory acidosis. Explain how the renal system would compensate for respiratory acidosis. Activity 3 Renal Responses to Respiratory Acidosis and Respiratory Alkalosis Describe what happened to the concentration of ions in the urine when the was lowered. How well did the results compare with your prediction? What condition was simulated when the was lowered? Describe what happened to the concentration of ions in the urine when the was raised.

How well did the results compare with your prediction? What condition was simulated when the was raised? Activity 4 Respiratory Responses to Metabolic Acidosis and Metabolic Alkalosis Describe what happened to the blood pH when the metabolic rate was increased to Nith your prediction? List and describe some possible causes of metabolic acidosis.

Describe what happened to the blood pH when the metabolic rate was decreased to 20 kcal/hr. What body system was compensating? How well did

the results compare List and describe some possible causes of metabolic alkalosis.