

Lactic acidosis:

**Definition:** Lactic acidosis is a broad-anion gap metabolic acidosis caused by lactic acid **overproduction** or **underutilization**. A plasma lactate concentration that exceeds 4 meq/L generally defines lactic acidosis, even among patients without a systemic acidosis. Lactic acidosis is the most common cause of metabolic acidosis in hospitalized patients. Impaired tissue oxygenation, leading to increased anaerobic metabolism, is usually responsible for the rise in lactate production.

**Type A:** associated with impaired tissue oxygenation due to tissue hypoperfusion in shock (caused by hypovolemia, cardiac failure, or sepsis) or as a result of a cardiopulmonary arrest. Accelerated generation of pyruvate from glucose may also play an important role in some forms of type A lactic acidosis, especially in septic shock. In some patients, concurrent respiratory acidosis contributes to the acidemia

**Type B:** occurs in patients without overt systemic hypoperfusion. Causes of type B lactic acidosis include toxin-induced impairment of cellular metabolism, regional areas of tissue ischemia, high levels of metformin, tumor lactic acidosis, alcoholism, and drug-induced mitochondrial dysfunction in HIV-infected patients

**D-lactic acidosis:** an unusual form of metabolic acidosis that occurs in patients with short bowel syndrome or other forms of malabsorption. It may also develop in patients receiving rapid and high-dose infusions of propylene glycol (a solvent for some IV medications), or in patients with diabetic ketoacidosis

Question:

This unique form of lactic acidosis can occur in patients with jejunioileal bypasses, small bowel resections, or other forms of short-bowel syndrome:

- a. Type A lactic acidosis
- b. Type B lactic acidosis
- c. Ketoacidosis
- d. D-lactic acidosis

Answer: D - an unusual form of metabolic acidosis that occurs in patients with short bowel syndrome or other forms of malabsorption