

Aspirin Poisoning (Salicylism) Assessment

Aspirin (acetylsalicylic acid, ASA) poisoning is termed, Salicylism. The excessive ingestion of aspirin is toxic and can manifest as acute or chronic based on the exposure. The progression of stages is a difficult concept as the body attempts to compensate for the additional ingested aspirin, which is an acid.



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Early Symptoms

Nausea and Vomiting

Vomiting

Immediate differences in pH of the gastric system causes nausea and vomiting. This is often the first symptom to appear.

Tinnitus

Tennis-ball ringing in ear

Ringing in the ears is an early sign of aspirin poisoning.

Confusion

Confucius

Confusion often manifests due to pH changes in the blood that affect the brain. This is caused by either hyperventilation causing respiratory alkalosis or metabolic acidosis due to the excessive direct ingestion of acid.

Hyperventilation

Hiker-vent

A compensatory response to increased ingestion of acid causes an increase in respiratory rate as the body attempts to “blow off” additional CO₂ (acid).

Respiratory Alkalosis

Respirator Elk-loser

Increased ventilation rate and depth causes respiratory alkalosis as excessive CO₂ is removed from the body through the respiratory system.

Late Symptoms

Metabolic Acidosis

Metal-ball Acidic-lemon

As compensatory methods fail to manage the additional acid ingested, the body enters a state of metabolic acidosis. This aciduria leads to renal failure and oliguria.

Coma

Comb

Aciduria causes pH changes in the neurological system causing initially delirium, stupor and possible hallucinations. If ingestion is severe, coma may result.

Hyperthermia

Hiker-thermometer

This medication prevents the ability for the body to regulate temperature. Especially in children, hyperpyrexia may result in seizures. This increase in body temperature also causes an excessively diaphoretic state.