

Conical Relief from Airway Threats: The Chloroform Cone of Trendelenburg



A German surgeon named Friedrich Trendelenburg, M.D. (1844 to 1924), pioneered transtracheal administration of chloroform for patients undergoing potentially bloody or infected oral, pharyngeal, or laryngeal surgery. After induction of general anesthesia, a metal cannula was introduced through a surgical incision into the trachea (tracheotomy). After securing the metal device with a tampon or balloon, the cannula was connected by long tubing to the apex of a metal cone. Chloroform was dripped upon a piece of cloth stretched over a wire frame which capped the open base or “mouth” of the cone (*right*). For entraining fresh air, early versions of the Trendelenburg cone included holes (*left*) circling the rim of the cone’s mouth. If too much liquid chloroform dripped onto the cloth or, even worse, rolled down the trachea, a patient’s pulse could diminish, become irregular, or even cease. Such a crisis could precipitate cone removal and placement of the supine patient with pelvis higher than head, in the “Trendelenburg position.” (Copyright © the American Society of Anesthesiologists’ Wood Library-Museum of Anesthesiology.)

George S. Bause, M.D., M.P.H., Honorary Curator and Laureate of the History of Anesthesia, Wood Library-Museum of Anesthesiology, Schaumburg, Illinois, and Clinical Associate Professor, Case Western Reserve University, Cleveland, Ohio. UJYC@aol.com.