8.6: VIII Glossary

**Apnea:** Temporary cessation of breathing. When apnea occurs during sleep, it is often caused by the condition called Obstructive Sleep Apnea (OSA).

**Arterial Blood Gas (ABG):** Diagnostic test performed on an arterial sample of blood to determine its pH level, oxygenation status, and carbon dioxide status.

**Barrel chest:** An increased anterior-posterior chest diameter, resulting from air trapping in the alveoli, that occurs in chronic respiratory disease.

**Bilevel Positive Airway Pressure (BiPAP):** A BiPAP is an oxygenation device similar to a CPAP device in its use to prevent airways from collapsing, but it has two pressure settings. One setting occurs during inhalation and a lower pressure setting is used during exhalation. BiPAP devices may be used in the home to treat obstructive sleep apnea or in hospitals to treat patients in acute respiratory distress. For more information, see the “Oxygenation Equipment” section of the “Oxygen Therapy” chapter in Open RN *Nursing Skills*.

**Bradypnea:** Decreased respiratory rate less than the normal range according to the patient’s age.

**Cardiac output:** The amount of blood the heart pumps in one minute.

**Continuous Positive Airway Pressure (CPAP):** A CPAP is an oxygenation device is typically used for patients who are able to breathe spontaneously but need assistance in keeping their airway unobstructed, such as those with obstructive sleep apnea. The CPAP device consists of a mask that covers the patient’s nose, or nose and mouth, and is attached to a machine that continuously applies mild air pressure to keep the airways from collapsing. For more information, see the “Oxygenation Equipment” section of the “Oxygen Therapy” chapter in Open RN *Nursing Skills*.
Clubbing: Enlargement of the fingertips that occurs with chronic hypoxia.

Coughing and deep breathing: A breathing technique where the patient is encouraged to take deep, slow breaths and then exhale slowly. After each set of breaths, the patient should cough. This technique is repeated 3 to 5 times every hour.

Cyanosis: Bluish discoloration of the skin and mucous membranes.

Dyspnea: A subjective feeling of not getting enough air. Depending on severity, dyspnea causes increased levels of anxiety.

Endotracheal Tube (ET tube): An ET tube is inserted by an advanced practitioner to maintain a secure airway when a patient is experiencing respiratory failure or is receiving general anesthesia. For more information, see the "Oxygenation Equipment" section of the "Oxygen Therapy" chapter in Open RN Nursing Skills.

HCO3: Bicarbonate level of arterial blood indicated in an arterial blood gas (ABG) result. Normal range is 22-26.

Huffing technique: A technique helpful for patients who have difficulty coughing. Teach the patient to inhale with a medium-sized breath and then make a sound like "ha" to push the air out quickly with the mouth slightly open.

Hypercapnia: Elevated level of carbon dioxide in the blood.

Hypoxemia: A specific type of hypoxia that is defined as decreased partial pressure of oxygen in the blood (PaO2) indicated in an arterial blood gas (ABG) result.

Hypoxia: A reduced level of tissue oxygenation. Hypoxia has many causes, ranging from respiratory and cardiac conditions to anemia.

Incentive spirometer: A medical device commonly prescribed after surgery to reduce the buildup of fluid in the lungs and to prevent pneumonia. While sitting upright, the patient should breathe in slowly and deeply through the tubing with the goal of raising the piston to a specified level. The patient should attempt to hold their breath for 5 seconds, or as long as tolerated, and then rest for a few seconds. This technique should be repeated by the patient 10 times every hour while awake.

Mechanical ventilator: A mechanical ventilator is a machine attached to an endotracheal tube to assist or replace spontaneous breathing. For more information, see the "Oxygenation Equipment" section of the "Oxygen Therapy" chapter in Open RN Nursing Skills.

Orthopnea: Difficulty in breathing that occurs when lying down and is relieved upon changing to an upright position.

PaCO2: Partial pressure of carbon dioxide level in arterial blood indicated in an ABG result. Normal range is 35-45 mmHg.

PaO2: Partial pressure of oxygen level in arterial blood indicated in an ABG result. Normal range is 80-100 mmHg.

Perfusion: The passage of blood through the arteries to an organ or tissue.
**Pursed-lip breathing:** A breathing technique that encourages a person to inhale through the nose and exhale through the mouth at a slow, controlled flow.

**Purulent sputum:** Yellow or green sputum that often indicates a respiratory infection.

**Respiration:** Gas exchange occurs at the alveolar level where blood is oxygenated and carbon dioxide is removed.

**SaO2:** Calculated oxygen saturation level in an ABG result. Normal range is 95-100%.

**SpO2:** Hemoglobin saturation level measured by pulse oximetry. Normal range is 94-98%.

**Sputum:** Mucus and other secretions that are coughed up from the mouth.

**Tachypnea:** Elevated respiratory rate above normal range according to the patient’s age.

**Tripod position:** A position that enhances air exchange when a patient sits up and leans over by resting their arms on their legs or on a bedside table; also referred to as a three-point position.

**Ventilation:** Mechanical movement of air into and out of the lungs.

**Vibratory Positive Expiratory Pressure (PEP) Therapy:** Handheld devices such as flutter valves or Acapella devices used with patients who need assistance in clearing mucus from their airways.