

NeuroTrace Academy Study Guide

Category: Medical Terminology

Topic: Respiratory Terms

Style: Definition-based, exam-oriented, differentiation-focused

1. Core Principles (Must Know)

Respiratory Terminology

- Breathing patterns indicate different conditions
- Reversibility distinguishes asthma from COPD
- Location determines disorder type
- Severity ranges from mild to life-threatening

Key Principle

- Understanding breathing patterns and reversibility enables accurate diagnosis
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2. Breathing Disorders

Apnea

- **Definition:** A possibly life-threatening condition in which breathing stops, for either a short or long period of time
- **Types:**
 - Sleep apnea (during sleep)
 - Central apnea
 - Obstructive apnea
- **Severity:** Life-threatening
-  **Key:** Complete cessation of breathing = apnea

 **Exam Trap:** Apnea = complete stop (most serious), not just difficulty

Dyspnea

- **Definition:** Difficulty breathing (not cessation)
 - **Severity:** Less severe than apnea
 -  **Key:** Difficulty (not stop) = dyspnea
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Tachypnea

- **Definition:** Rapid breathing
 -  **Key:** Fast breathing = tachypnea
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Bradypnea

- **Definition:** Slow breathing
 -  **Key:** Slow breathing = bradypnea
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3. Airway Disorders

Asthma

- **Definition:** A disorder characterized by inflamed airways and difficulty breathing
- **Key feature:** REVERSIBLE airway inflammation
- **Treatment response:** Bronchodilators improve airflow
- **Characteristics:**
 - Reversible obstruction
 - Airway inflammation
 - Episodic
- **Key:** Reversible = asthma

⚠ **Exam Trap:** Reversibility is the critical discriminator from COPD

Chronic Obstructive Pulmonary Disease (COPD)

- **Definition:** A combination of the lung disease emphysema and bronchitis characterized by blockage of airflow in and out of the lungs
- **Key feature:** CHRONIC, IRREVERSIBLE airflow obstruction
- **Components:**
 - Emphysema
 - Chronic bronchitis
- **Characteristics:**
 - Irreversible obstruction
 - Chronic
 - Progressive
- **Key:** Irreversible = COPD

⚠ **Exam Trap:** Irreversibility distinguishes from asthma

4. Respiratory Emergencies

Asphyxia

- **Definition:** The medical term for suffocation that can be caused by choking on an object, lack of oxygen in the air, or chemicals such as carbon monoxide which reduce the amount of oxygen in the blood
- **Causes:**
 - Choking
 - Low oxygen in air
 - Chemical poisoning (CO)
- **Key:** Suffocation from multiple causes = asphyxia

5. Respiratory Anatomy

Pharynx / Pharyngitis

- **Pharynx:** The throat, the tube connecting the back of the mouth and nose to the esophagus and windpipe
- **Pharyngitis:** Inflammation of the throat causing sore throat, fever, earache and swollen glands
- **Location:** Connects mouth/nose to esophagus/windpipe (both digestive and respiratory)
- **Key:** Throat + dual function = pharynx

6. Pediatric Respiratory

Croup

- **Definition:** A usually mild and temporary condition common in children under the age of 4 in which the walls of the airways become inflamed and narrow resulting in wheezing and coughing
 - **Age:** <4 years (pediatric)
 - **Features:**
 - Airway inflammation
 - Narrowing
 - Wheezing
 - Barking cough
 - **Key:** Pediatric + airway + wheezing = croup
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7. Pulmonary Vascular

Pulmonary Hypertension

- **Definition:** Increased blood pressure in the arteries supplying blood to the lungs, caused by increased resistance of blood flow in the lungs, usually the result of lung disease
 - **Cause:** Increased resistance in pulmonary arteries
 - **Complication:** Can lead to right heart strain (cor pulmonale)
 - **Key:** Pulmonary artery pressure + lung disease = pulmonary hypertension
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8. High-Yield Exam Discrimination Table

Term	Key Feature	Severity	Reversibility
Apnea	Complete cessation	Life-threatening	-
Dyspnea	Difficulty	Less severe	-
Asthma	Airway inflammation	Variable	Reversible
COPD	Airway obstruction	Chronic	Irreversible
Asphyxia	Suffocation	Life-threatening	-
Croup	Pediatric airway	Mild-temporary	-
Pulmonary HTN	Artery pressure	Chronic	-

9. ABRET Exam Pearls

Critical Distinctions

1. **Asthma vs COPD:** Reversible vs irreversible (CRITICAL discriminator)
2. **Apnea vs Dyspnea:** Complete stop vs difficulty
3. **Croup:** Pediatric condition (<4 years)
4. **Pulmonary hypertension:** Leads to right heart strain (cor pulmonale)

Common Exam Traps

- Mixing asthma (reversible) with COPD (irreversible)
- Confusing apnea (complete stop) with dyspnea (difficulty)
- Forgetting that croup is pediatric only
- Missing pulmonary hypertension → cor pulmonale connection

10. Quick Reference Summary

Must-Know Definitions

- **Apnea:** Complete breathing cessation (life-threatening)
- **Dyspnea:** Difficulty breathing
- **Asthma:** Reversible airway inflammation
- **COPD:** Irreversible airway obstruction
- **Asphyxia:** Suffocation (multiple causes)
- **Croup:** Pediatric airway inflammation
- **Pulmonary hypertension:** Increased pulmonary artery pressure

Memory Anchors

- Apnea = A (all) breathing stops
- Asthma = reversible (think "A" = "able to reverse")
- COPD = chronic obstructive (think "C" = "can't reverse")
- Croup = children (think "C" = "child")

Next Steps:

- Memorize reversibility distinction (asthma vs COPD)
- Learn breathing pattern terms (apnea, dyspnea, tachypnea, bradypnea)
- Understand pediatric conditions (croup)
- Practice discrimination between similar terms