Respiratory System

- Objectives
  - Define, understand and correctly pronounce medical terms related to the respiratory system
  - Describe in relation to the respiratory system:
    - common diseases and conditions
    - laboratory and diagnostic procedures
    - medical and surgical procedures
    - medications

Respiratory System Overview

- Functions
  - Bring oxygen to cells
  - Remove waste products from body

- Respiration
  - Sequence of events
Anatomy of the Respiratory System

• Upper respiratory tract
  – Nasal Cavity (Nose)
  – Pharynx
  – Larynx

• Lower respiratory tract
  – Trachea
  – Bronchi
  – Lungs

Diseases and Disorders of the Bronchus

• Asthma
  – Chronic disease
  – Childhood asthma
  – Reactive disease
    • Wheezing
    • Coughing
    • Chest tightness
    • Trouble breathing

Triggers

• Allergens
• Irritants
• Weather
• Infections

Treatment

• Quick-relief medicines
• Long-term control medicines
**Diseases and Disorders of the Bronchus**

- Bronchitis
  - Definition
  - Acute
    - Often caused by cold viruses
    - Usually resolves on its own
  - Chronic
    - Chronic obstructive pulmonary disease (COPD)
    - Causes
      - Smoking
      - Breathing fumes over a period of time
      - Breathing dust over a period of time

**Diseases and Disorders of the Pharynx**

- Throat Disorders
  - Tonsillitis – infection in the tonsils
  - Pharyngitis – inflammation of the pharynx
  - Causes
    - Viruses
    - Allergies
    - Bacteria, e.g. strep
    - Gastric Reflux

**Head and Neck Cancer**

- Symptoms
  - Lump or sore that does not heal
  - Chronic sore throat
  - Difficulty swallowing
  - Voice changes
- Risk Factors
- Tobacco or alcohol use
- Treatment
  - Surgery, radiation, chemotherapy
  - Curable if caught early
Diseases and Disorders of the Lung

• Cystic Fibrosis (CF)
  – Inherited
  – Affected organs
  – Symptoms
  – Treatments

Diseases and Disorders of the Lung

• Lung Transplantation
  – Surgery to replace one or both lungs
  – Used for diseases that cannot be controlled in any other way
  – Complications
    • Rejection
    • Infection

Disorders and Diseases of the Lungs

• Pneumonia
  – Inflammation of lungs
    • Usually infection from virus, bacteria, fungi
    • Accidental inhalation of liquid or chemical
  – Symptoms
    • Difficulty breathing
    • Coughing
    • Fever
  – Diagnostic tests
    • Chest x-ray and blood tests
Disorders and Diseases of the Lungs

• Pneumonia
  – Definition
  – Symptoms
  – Diagnostic tests
  – Treatment
  • Antibiotics for bacterial pneumonia
  – Preventive measures
  • Washing hands
  • Not smoking
  • Wearing a mask when cleaning mold or dust
  • Pneumococcal pneumonia vaccine

• Pulmonary Embolism
  • Etiology
    – Deep vein thrombosis (DVT)
  • Symptoms
    – Shortness of breath
    – Chest pain
    – Coughing up blood
  • Complications
    – Low oxygen levels in blood causing damage to lung and other organs
  • Treatment

• Pulmonary (Pulmonary Arterial) Hypertension
  – High blood pressure in the arteries to lung
  – Two main types
    • Family history/no known cause
    • Secondary to another medical condition
  – Treatment
    • Medicines
    • Oxygen
    • Lung transplantation
Respiratory System
Combining Forms

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<thead>
<tr>
<th>Word Part</th>
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Unit 11
Tell me Detective ...

A four-year old child was brought to the Emergency Department complaining of tightness in his chest and difficulty breathing. The physician observes the patient wheezing with chest retractions, and begins treatment immediately with drugs and breathing treatments.

What disease is he treating?

For additional information on content covered in this unit, please visit: http://www.nlm.nih.gov/medlineplus/lungsandbreathingsystem.html