

## Sick Call Screener Course

# Respiratory System (2.2)



## **Enabling Objectives**

- 1.17 Utilize the knowledge of respiratory system anatomy while assessing a patient with a respiratory complaint
- 1.18 Utilize the knowledge of respiratory system physiology while assessing a patient with a respiratory complaint
- 1.19 Obtain history from a patient with a common respiratory system complaint



## **Enabling Objective (Cont.)**

1.20 Perform a respiratory system examination

- 1.21 State signs and symptoms of common respiratory system disorders
- 1.22 State treatments for common respiratory system disorder
- 1.16 State Red Flag criteria



#### Introduction

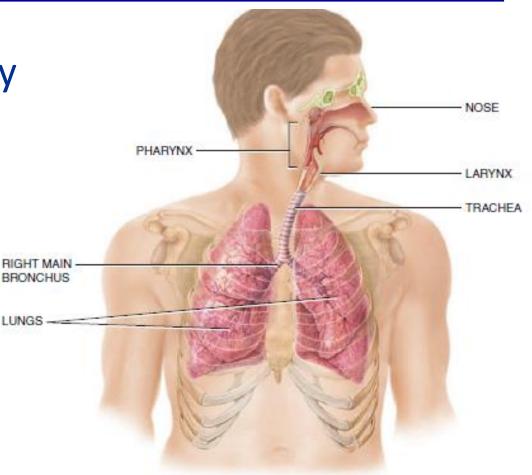
- The respiratory system ventilates and oxygenates the body.
- Removes carbon dioxide (CO<sub>2</sub>)
- Document and report respiratory system assessment findings to a provider.



# **Anatomy and Physiology**

Upper Respiratory
Tract

- Nose
- Nasopharynx
- Oropharynx



(From Principles of Anatomy and Physiology, 14th Ed.)



# Anatomy and Physiology (Cont.)

- Lower Respiratory Tract
  - Larynx
  - Trachea
  - Bronchi
  - Lungs
    - Right: upper, middle and lower lobes
    - Left: upper and lower lobes



#### Thorax

- Anterior:
  - Sternum, manubrium, xiphoid process and costal cartilage
- Laterally:
  - 12 pairs of ribs
- Posteriorly:
  - 12 thoracic vertebrae



## Respiratory Muscles

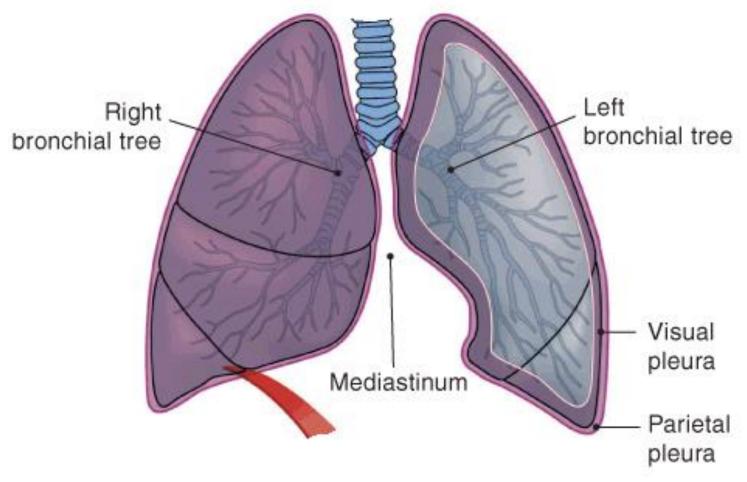
Diaphragm

Intercostal Muscles

Sternocleidomastoid and Trapezius Muscles



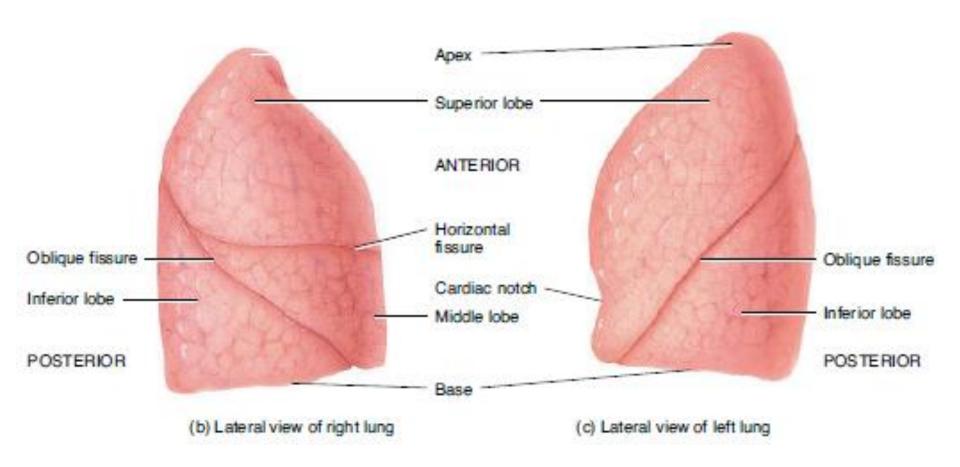
#### **Interior Chest**



(Figure 2.24, Physical Rehabilitation 6th Ed., 2014, https://statref.com



## Lungs

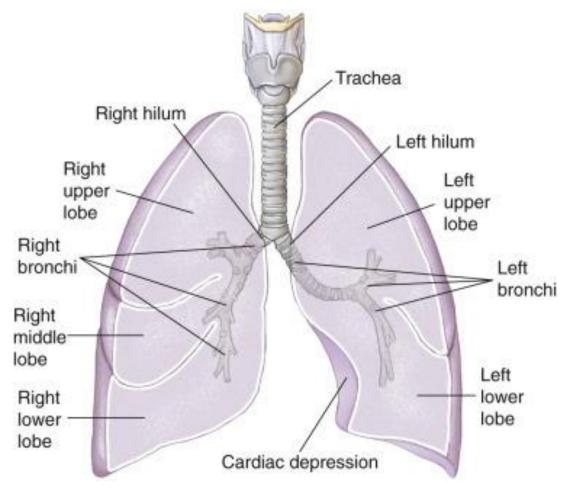


(From Principles of Anatomy and Physiology, 14th Ed.)

2.2-2-10



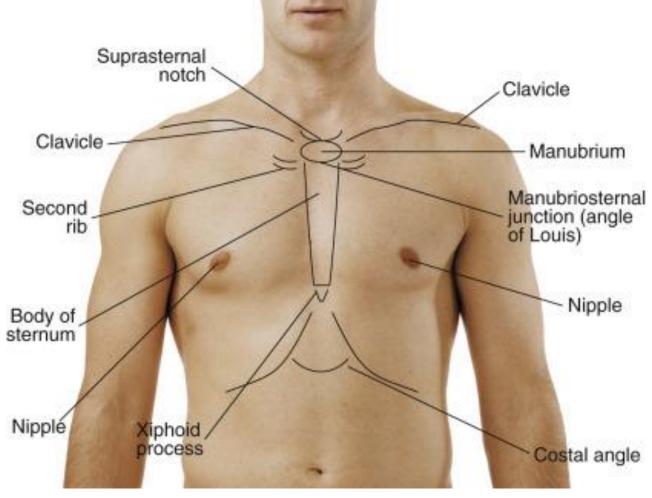
## Tracheobronchial Tree



(From Seidel's Guide to Physical Examination 9th Ed., www.clinicalkey.com)



#### **Anatomic Landmarks**



(From Seidel's Guide to Physical Examination 9th Ed., www.clinicalkey.com)



## History

- Chief Complaint (CC)
- History of present illness (HPI)
- Review of Systems
- Past Medical & Surgical History (PMHx & PsurgHx)
- Family history
- Social history



# Cough HPI

Onset

Aggravates

Location

Relieves

Duration

Temporal Factors

Characteristics

Severity



# Cough PMHx and PSurgHx

- Thoracic, nasal, or pharyngotracheal trauma, surgery
- hospitalizations or pulmonary disorders
- Chronic diseases
- Testing
- Immunizations



(From Seidel's Guide to Physical Examination 9th Ed., www.clinicalkey.com)



## Family Hx

- Tuberculosis
- Cystic fibrosis
- Emphysema
- Malignancy
- Clotting disorder





## Social Hx

- Tobacco use
- Exercise
- Exposure risk
- Travel
- Hobbies





#### ROS

Constitutional

Ear, Nose and Throat

Cardiac

Gastrointestinal



#### Examination

 Will be conducted with a HEENT, abdominal, heart and blood vessel exam.

 Every exam should begin with a general impression and vital signs.



## Inspection

Position patient

Use a drape if necessary

 Note shape and symmetry

 Check clavicle symmetry  Check position of the chest

Observe respirations

Observe the lips and nails for cyanosis



## **Palpation**

- Palpate thoracic muscles and skeleton
- Palpate for crepitus
- Check for pleural friction
- Palpate for thoracic expansion
- Tactile Fremitus
- Examine the trachea



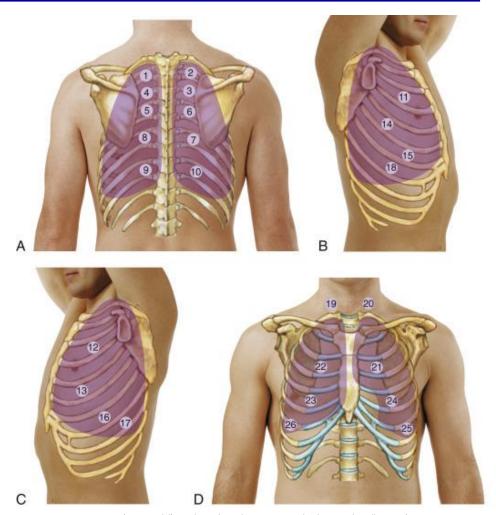


All Photos: (From Seidel's Guide to Physical Examination 9th Ed., www.clinicalkey.com)



#### Percussion

- Techniques
- Compare all areas bilaterally
- Check for:
  - Tone
  - Intensity
  - Pitch
  - Duration
  - Quality



(From Seidel's Guide to Physical Examination 9th Ed., www.clinicalkey.com)



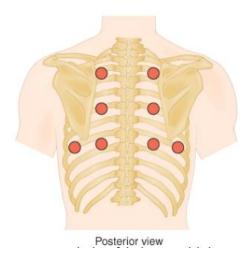
#### Auscultation

Listening to lungs

- Abnormal lung sounds
  - Adventitious (added)
  - Wheezes
  - Crackles
  - Rhonchi
  - Pleural Friction Rub



Anterior view



(From Seidel's Guide to Physical Examination 9th Ed., www.clinicalkey.com)



## **Examination Summary**

On inspection:

On palpation:

• On percussion:

On auscultation:





#### **URI**

Description

Subjective

Objective

Treatment Plan

Patient Education



STAT!Ref: Davis's Drug Guide for Nurses 15th ed., https://online.statref.com/



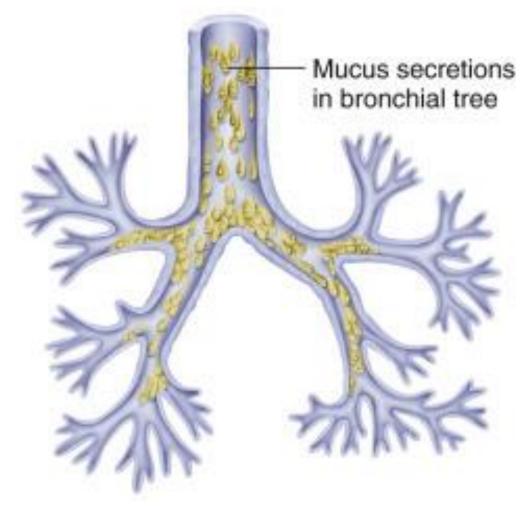
#### **Acute Bronchitis**

Description

Subjective Data

Objective Data

Treatment Plan



(From Seidel's Guide to Physical Examination 9th Ed., www.clinicalkey.com)



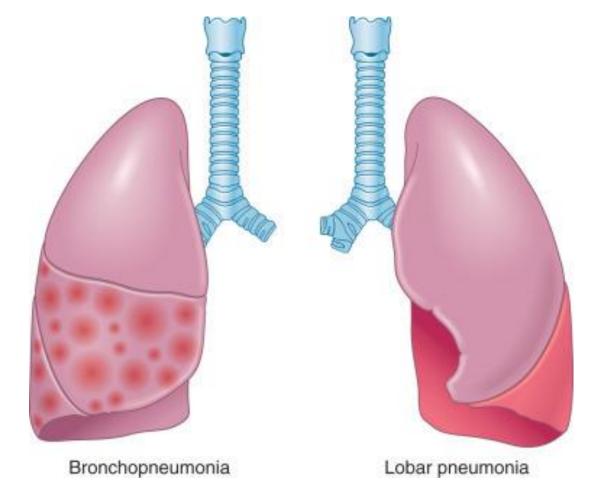
# Community-Acquired Pneumonia

Description

Subjective Data

Objective Data

Treatment Plan



(From Seidel's Guide to Physical Examination 9th Ed., www.clinicalkey.com)



#### Influenza

- Description
- Pathophysiology
- Subjective Data
- Objective Data
- Treatment Plan



#### **Asthma**

- Description
- Subjective Data
- Objective Data
- Referral Criteria

Treatment Plan



## Summary and Review

- 1.17 Utilize the knowledge of respiratory system anatomy while assessing a patient with a respiratory complaint
- 1.18 Utilize the knowledge of respiratory system physiology while assessing a patient with a respiratory complaint
- 1.19 Obtain history from a patient with a common respiratory system complaint



# Summary and Review (Cont.)

1.20 Perform a respiratory system examination

- 1.21 State signs and symptoms of common respiratory system disorders
- 1.22 State treatments for common respiratory system disorder

1.16 State Red Flag criteria



# Questions





## **Application**

• Job Sheet SCSC 2.2-3, Respiratory Lab

SCSC Performance Test 3