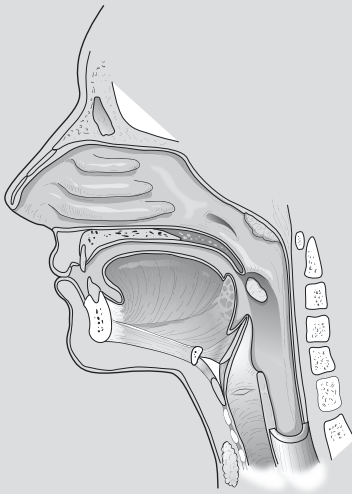


## ACTIVITY



# 11

## RESPIRATORY AND DIGESTIVE SYSTEMS

---

### OBJECTIVES

- **How to get ready:** Read CHAPTERS 25 AND 26, MCKINLEY ET AL., *HUMAN ANATOMY*, 2024 RELEASE. All text references are for this textbook.
- Identify structures listed in the gross anatomy of the respiratory system on models and donors.
- Histology: Examine and sketch a slide or photo of lung tissue and identify indicated structures.
- Identify structures listed in the gross anatomy of the digestive system on models and donors. **YOU MUST BRING GLOVES FOR THIS ACTIVITY.**
- Identify structures from various digestive system histology slides and models.
- **Before next class:** Preview Urinary and Reproductive terms lists from SLCC Anatomy Laboratory website or your printed laboratory manual and your textbook.

# Activity 11

## RESPIRATORY SYSTEM

**TABLE 11-1. Upper respiratory tract:** Includes the nose, nasal cavity, paranasal sinuses, and pharynx and associated structures.

STRUCTURE	TEXT REFERENCES AND NOTES
<b>NASAL CAVITY</b>	FIG. 25.2
<input type="checkbox"/> nostril	
<input type="checkbox"/> vestibule	
<input type="checkbox"/> superior nasal concha (pl., <i>conchae</i> ) and superior meatus	
<input type="checkbox"/> middle nasal concha and middle meatus	
<input type="checkbox"/> inferior nasal concha and inferior meatus	
<b>PHARYNX</b> (common space used by respiratory and digestive systems)	FIG. 25.1, 25.2
<input type="checkbox"/> nasopharynx	
<input type="checkbox"/> opening of auditory tube	
<input type="checkbox"/> hard palate <input type="checkbox"/> soft palate (divides nasopharynx and oropharynx)	
<input type="checkbox"/> oropharynx	
<input type="checkbox"/> hyoid bone (divides oropharynx and laryngopharynx)	
<input type="checkbox"/> laryngopharynx	

# Activity 11

TABLE 11-2. <b>Lower respiratory tract:</b> Conducting airways—larynx through bronchioles. TABLE 25.2	
STRUCTURE	TEXT REFERENCES AND NOTES
<b>LARYNX</b>	
<input type="checkbox"/> epiglottis	FIG. 25.2, 25.4, FIG. 25.5
<input type="checkbox"/> rima glottidis	
<input type="checkbox"/> glottis	
<input type="checkbox"/> thyroid cartilage and laryngeal prominence	
<input type="checkbox"/> corniculate cartilage	
<input type="checkbox"/> cricoid cartilage	
<input type="checkbox"/> arytenoid cartilages (covered by muscles)	
<input type="checkbox"/> vestibular ligaments/folds (false vocal cords)	
<input type="checkbox"/> vocal ligaments/folds (true vocal cords)	
<input type="checkbox"/> thyroid gland (part of the endocrine system)	
<b>Trachea</b>	
<input type="checkbox"/> tracheal cartilages	FIG. 25.6
<input type="checkbox"/> carina	
<b>Bronchial Tree</b>	
<input type="checkbox"/> main (or primary) bronchus (pl., <i>bronchi</i> )	FIG. 25.7
<input type="checkbox"/> lobar (or secondary) bronchus (2 to left, 3 to right lung)	
<input type="checkbox"/> segmental (or tertiary) bronchus (lead to respiratory bronchioles and alveoli)	

## Respiratory and Digestive Systems

---

Identify the structures indicated on FIGURE 11-2.

1.	2.
3.	4.
5.	6.
7.	8.

# Activity 11

**TABLE 11-3. Alveoli and the respiratory membrane:** Obtain a histology slide or photo of bronchioles and alveoli and identify the following structures.

STRUCTURE	TEXT REFERENCES AND SKETCH
<input type="checkbox"/> respiratory bronchioles	FIG. 25.8B, 25.9
<input type="checkbox"/> alveolar ducts	
<input type="checkbox"/> alveolar sacs	
<input type="checkbox"/> alveoli (sing., <i>alveolus</i> )	
<input type="checkbox"/> pulmonary capillaries	

**TABLE 11-4. Lungs and associated structures**

STRUCTURE	TEXT REFERENCES AND NOTES	
<input type="checkbox"/> visceral pleura	FIG. 25.10	
<input type="checkbox"/> pleural cavity		
<input type="checkbox"/> parietal pleura		
<b>LUNGS</b>	FIG. 25.11	
<input type="checkbox"/> right lung (3 lobes)		
<input type="checkbox"/> superior lobe		
<input type="checkbox"/> horizontal fissure		
<input type="checkbox"/> middle lobe		
<input type="checkbox"/> oblique fissure		
<input type="checkbox"/> inferior lobe		
<input type="checkbox"/> hilum		
<input type="checkbox"/> pulmonary arteries and veins		
<input type="checkbox"/> main (or primary) bronchus (pl., <i>bronchi</i> )		
<input type="checkbox"/> left lung (2 lobes)		
<input type="checkbox"/> superior lobe		
<input type="checkbox"/> cardiac notch		
<input type="checkbox"/> oblique fissure		
<input type="checkbox"/> inferior lobe		
<input type="checkbox"/> hilum		
<input type="checkbox"/> pulmonary arteries and veins		
<input type="checkbox"/> main (or primary) bronchus (pl., <i>bronchi</i> )		
<input type="checkbox"/> diaphragm		FIG. 11.13, 25.10, 25.1

## DIGESTIVE SYSTEM

TABLE 11-5. Oral cavity, salivary glands, and associated structures	
STRUCTURE	TEXT REFERENCES AND NOTES
<b>ORAL CAVITY</b>	FIG. 26.3, TABLE 26.3
<input type="checkbox"/> upper and lower lips	
<input type="checkbox"/> superior labial frenulum	
<input type="checkbox"/> inferior labial frenulum	
<input type="checkbox"/> vestibule	
<input type="checkbox"/> teeth	
<input type="checkbox"/> gingivae	
<input type="checkbox"/> hard and soft palates	
<input type="checkbox"/> uvula	
<input type="checkbox"/> tongue	
<input type="checkbox"/> lingual frenulum	
<input type="checkbox"/> palatine tonsils	
<input type="checkbox"/> lingual tonsils	
<input type="checkbox"/> pharyngeal tonsils	
<b>SALIVARY GLANDS</b>	FIG. 26.1, 26.4
<input type="checkbox"/> parotid salivary glands	
<input type="checkbox"/> parotid duct and orifice	
<input type="checkbox"/> sublingual salivary glands	
<input type="checkbox"/> sublingual ducts and orifices	
<input type="checkbox"/> submandibular salivary glands	
<input type="checkbox"/> submandibular duct and orifice	

# Activity 11

TABLE 11-6. Esophagus through stomach	
STRUCTURE	TEXT REFERENCES AND NOTES
<input type="checkbox"/> <b>esophagus</b>	FIG. 26.10
<input type="checkbox"/> inferior esophageal ( <i>or</i> cardiac) sphincter	
<input type="checkbox"/> <b>stomach</b>	FIG. 26.12
<input type="checkbox"/> cardia	
<input type="checkbox"/> fundus	
<input type="checkbox"/> greater curvature	
<input type="checkbox"/> lesser curvature	
<input type="checkbox"/> pylorus	
<input type="checkbox"/> pyloric sphincter	
<input type="checkbox"/> gastric folds ( <i>or</i> rugae)	
<input type="checkbox"/> body	FIG. 26.7, 26.8
<input type="checkbox"/> greater omentum	
<input type="checkbox"/> lesser omentum	

TABLE 11-7. Small intestine, large intestine, rectum, and anus	
STRUCTURE	TEXT REFERENCES AND NOTES
<input type="checkbox"/> <b>SMALL INTESTINE</b>	FIG. 26.7, 26.14, 26.15, 26.20
<input type="checkbox"/> duodenum	
<input type="checkbox"/> hepatopancreatic ampulla	
<input type="checkbox"/> major duodenal papilla (opening to main pancreatic duct)	
<input type="checkbox"/> circular folds ( <i>or</i> plicae circulares)	
<input type="checkbox"/> jejunum	
<input type="checkbox"/> circular folds	
<input type="checkbox"/> ileum	
<input type="checkbox"/> circular folds (plicae circulares)	FIG. 26.7, 26.8
<input type="checkbox"/> mesentery proper ( <i>or</i> intestinal mesentery)	

## Respiratory and Digestive Systems

TABLE 11-7. Small intestine, large intestine, rectum, and anus	
STRUCTURE	TEXT REFERENCES AND NOTES
<input type="checkbox"/> <b>LARGE INTESTINE</b> (includes cecum and colon)	FIG. 26.16
<input type="checkbox"/> cecum (inferior to ileocecal valve)	
<input type="checkbox"/> vermiform appendix	
<input type="checkbox"/> ileocecal valve ( <i>or</i> sphincter)	
<input type="checkbox"/> colon (superior to ileocecal valve)	
<input type="checkbox"/> ascending colon and right colic flexure	
<input type="checkbox"/> transverse colon and left colic flexure	
<input type="checkbox"/> descending colon and sigmoid flexure	
<input type="checkbox"/> sigmoid colon	
<input type="checkbox"/> teniae coli	FIG. 26.16
<input type="checkbox"/> haustrum (pl., <i>haustra</i> )	
<input type="checkbox"/> <b>RECTUM AND ANUS</b>	FIG. 26.16B

TABLE 11-8. Accessory digestive structures and biliary system	
STRUCTURE	TEXT REFERENCES
<input type="checkbox"/> liver	FIG. 26.18
<input type="checkbox"/> right, left, caudate, and quadrate lobes	
<input type="checkbox"/> falciform ligament (separates right and left lobes)	
<input type="checkbox"/> round ligament of the liver ( <i>or</i> ligamentum teres)	
<input type="checkbox"/> porta hepatis	
<input type="checkbox"/> common hepatic duct	
<input type="checkbox"/> hepatic portal vein	
<input type="checkbox"/> hepatic artery proper	
<input type="checkbox"/> gallbladder	FIG. 26.18, 26.20, 26.21
<input type="checkbox"/> cystic duct	
<input type="checkbox"/> common bile duct	
<input type="checkbox"/> pancreas	
<input type="checkbox"/> main pancreatic duct	
<input type="checkbox"/> accessory pancreatic duct	



## HISTOLOGY OF THE DIGESTIVE SYSTEM

**TABLE 11-9. Histology of the GI tract:** Identify the following structures and layers on a histology slide or photo *and a model* of a cross section of the GI tract.

STRUCTURE	TEXT REFERENCES AND SKETCH
Identify the following structures on GI tract cross section slides <b>and on in-class model</b>	
<input type="checkbox"/> <b>lumen</b>	FIG. 26.9
<input type="checkbox"/> <b>mucosa</b>	
<input type="checkbox"/> <b>submucosa</b>	
<input type="checkbox"/> <b>muscularis</b>	
<input type="checkbox"/> <b>adventitia/serosa</b>	