

ACTIVITY



RESPIRATORY AND DIGESTIVE SYSTEMS

OBJECTIVES

1. **How to get ready:** Read CHAPTERS 25 AND 26, MCKINLEY ET AL., *HUMAN ANATOMY*, 5E. All text references are for this textbook.
2. Identify structures listed in the gross anatomy of the respiratory system on models and cadavers.
3. Histology: Examine and sketch a slide or photo of lung tissue and identify indicated structures.
4. Identify structures listed in the gross anatomy of the digestive system on models and cadavers. **YOU MUST BRING GLOVES FOR THIS ACTIVITY.**
5. Identify structures from various digestive system histology slides and models.
6. **Before next class:** Preview Urinary and Reproductive terms lists from SLCC Anatomy Laboratory website or your printed laboratory manual and your textbook.

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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
NASAL CAVITY	DESCRIBED: P. 744 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	DESCRIBED: P. 744 FIG. 7.3, 25.2, 25.3
PARANASAL SINUSES	
<input type="checkbox"/> sphenoidal sinus	
<input type="checkbox"/> ethmoidal sinuses	
<input type="checkbox"/> frontal sinus	DESCRIBED: PP. 744, 746 FIG. 25.1, 25.2
<input type="checkbox"/> maxillary sinuses	
PHARYNX (common space used by respiratory and digestive systems)	
<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	

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TABLE 11-2. Lower respiratory tract: Conducting airways—larynx through bronchioles. TABLE 25.2	
STRUCTURE	TEXT REFERENCES AND NOTES
LARYNX	
<input type="checkbox"/> epiglottis	DESCRIBED: P. 748 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)	
NOTE: thyroid gland (part of the endocrine system)	
Trachea	
<input type="checkbox"/> tracheal cartilages	DESCRIBED: P. 751 FIG. 25.6
Bronchial Tree	
<input type="checkbox"/> main (or primary) bronchus (pl., <i>bronchi</i>)	DESCRIBED: PP. 752–753 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)	

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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	DESCRIBED: P. 754 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	DESCRIBED: P. 756 FIG. 25.10	
<input type="checkbox"/> pleural cavity		
<input type="checkbox"/> parietal pleura		
LUNGS	DESCRIBED: PP. 756–757 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		DESCRIBED: PP. 341, 761 FIG. 11.13, 25.10, 25.1

DIGESTIVE SYSTEM

TABLE 11-5. Oral cavity, salivary glands, and associated structures	
STRUCTURE	TEXT REFERENCES AND NOTES
ORAL CAVITY	DESCRIBED: PP. 775–776 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	
SALIVARY GLANDS	DESCRIBED: PP. 776, 778 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	

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TABLE 11-6. Esophagus through stomach	
STRUCTURE	TEXT REFERENCES AND NOTES
<input type="checkbox"/> esophagus	DESCRIBED: PP. 785–786 FIG. 26.10
<input type="checkbox"/> inferior esophageal (<i>or</i> cardiac) sphincter	
<input type="checkbox"/> stomach	DESCRIBED: P. 787 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	
<input type="checkbox"/> greater omentum	DESCRIBED: P. 781 FIG. 26.7, 26.8
<input type="checkbox"/> lesser omentum	

TABLE 11-7. Small intestine, large intestine, rectum, and anus	
STRUCTURE	TEXT REFERENCES AND NOTES
<input type="checkbox"/> SMALL INTESTINE	DESCRIBED: P. 791 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)	
<input type="checkbox"/> mesentery proper (<i>or</i> intestinal mesentery)	DESCRIBED: P. 781 FIG. 26.7, 26.8

Respiratory and Digestive Systems

STRUCTURE	TEXT REFERENCES AND NOTES
<input type="checkbox"/> LARGE INTESTINE (includes cecum and colon)	DESCRIBED: PP. 793–794 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	
<input type="checkbox"/> haustrum (pl., <i>haustra</i>)	
<input type="checkbox"/> RECTUM AND ANUS	DESCRIBED: PP. 794–795 FIG. 26.16B

STRUCTURE	TEXT REFERENCES
<input type="checkbox"/> liver	DESCRIBED: PP. 797–798 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	DESCRIBED: PP. 798–803 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 and on in-class model	
<input type="checkbox"/> lumen	PP. 782–783 FIG. 26.9
<input type="checkbox"/> mucosa	
<input type="checkbox"/> submucosa	
<input type="checkbox"/> muscularis	
<input type="checkbox"/> adventitia/serosa	