

Respiratory system: chart

07.023

Body part	Blood supply	Nerve supply	Function
Alveoli	Pulmonary capillaries	Pulmonary plexus	Main sites of gas exchange during respiration
Bronchioles	Bronchial artery; bronchial vein	Pulmonary plexus	Conduct air from bronchus to alveoli
Bronchus	Bronchial artery; bronchial vein	Pulmonary plexus	Conducts air from trachea to bronchioles
Diaphragm	Phrenic arteries; inferior phrenic veins	Phrenic nerve	Increases and decreases capacity of thoracic cavity so that air enters and leaves lungs during respiration
Epiglottis	Laryngeal branches of superior and inferior thyroid arteries; laryngeal branches of superior and inferior thyroid veins	Internal laryngeal nerve	Prevents food and drink entering larynx during swallowing
Larynx	Branches of superior and inferior thyroid arteries; branches of superior and inferior thyroid veins	External, internal, and recurrent laryngeal nerves	Voice production; prevents food entering trachea during swallowing
Lung	Pulmonary artery; bronchial artery; Pulmonary veins; bronchial veins	Pulmonary plexus	Contains bronchus (except primary), bronchioles, alveoli, and pleurae
Nasal cavity	Branches of maxillary artery; facial artery; veins draining into sphenopalatine, facial, and ophthalmic veins	Olfactory nerve; branches of ophthalmic nerve; maxillary divisions of trigeminal nerve	Conducts air from exterior to pharynx; filters, warms, and moistens incoming air
Pharynx	Superior thyroid and ascending pharyngeal branches of external carotid artery; venous plexus drains into internal jugular vein	Pharyngeal branch of maxillary nerve; lesser palatine nerves; internal laryngeal nerve	Conducts air from nasal and oral cavities to larynx
Pleurae	Intercostal, internal thoracic, musculophrenic, and bronchial arteries; intercostal, internal thoracic, musculophrenic, and bronchial veins.	Intercostal nerves; phrenic nerve; autonomic nerves of lung	Line and lubricate lungs and thoracic cavity
Trachea	Inferior thyroid arteries; bronchial arteries; inferior thyroid venous plexus	Vagus nerves; recurrent laryngeal nerves; sympathetic trunks	Conducts air from larynx to bronchi