

Respiratory System

Our respiratory system is the physical mouthpiece to spirit within this realm. It is from the throat that we bring spirit's will into physical form, helping maintain the sacred around us, remembering the sacred within. Like the throat chakra, our respiratory system has been colonized by the foods we take in, the ways that we stuff down our truths or diarrhea rage, lies, and confusion out of our mouths. We must enter into a healing relationship with respiratory tract to unearth the inner truths that will set us on a path living our inner truths, a freer path.

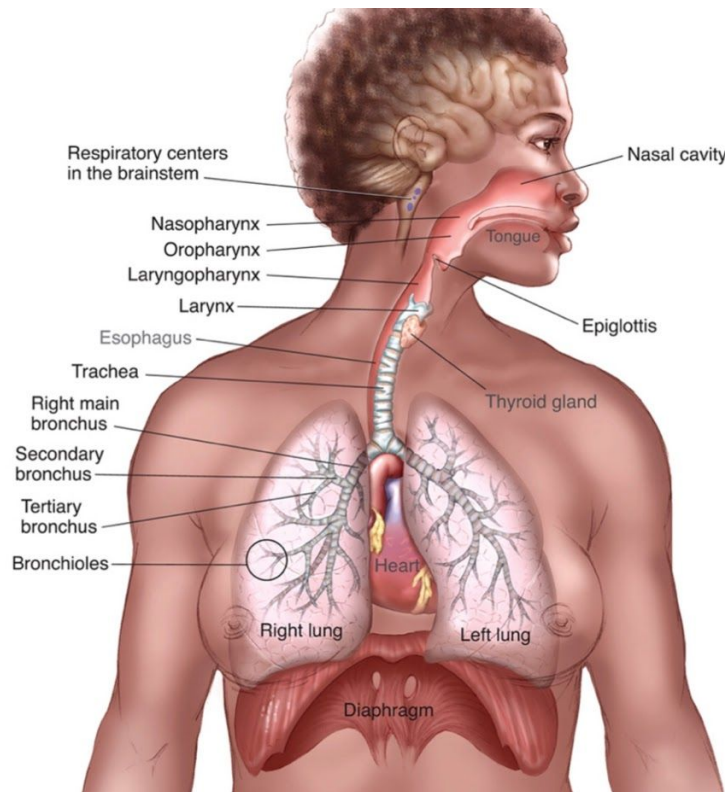
Role of the Respiratory System

The Respiratory System, also known as the pulmonary system, is a series of organs responsible for taking in oxygen and expelling carbon dioxide. This system aids the body in the exchange of gases between the air and blood, and between the blood and the body's billions of cells.

It does this by:

- Inhaling fresh oxygen (O₂) needed by the body's cells
- Exhaling waste carbon dioxide (CO₂)
- Helping to maintain body temperature
- Eliminates excess water from the body

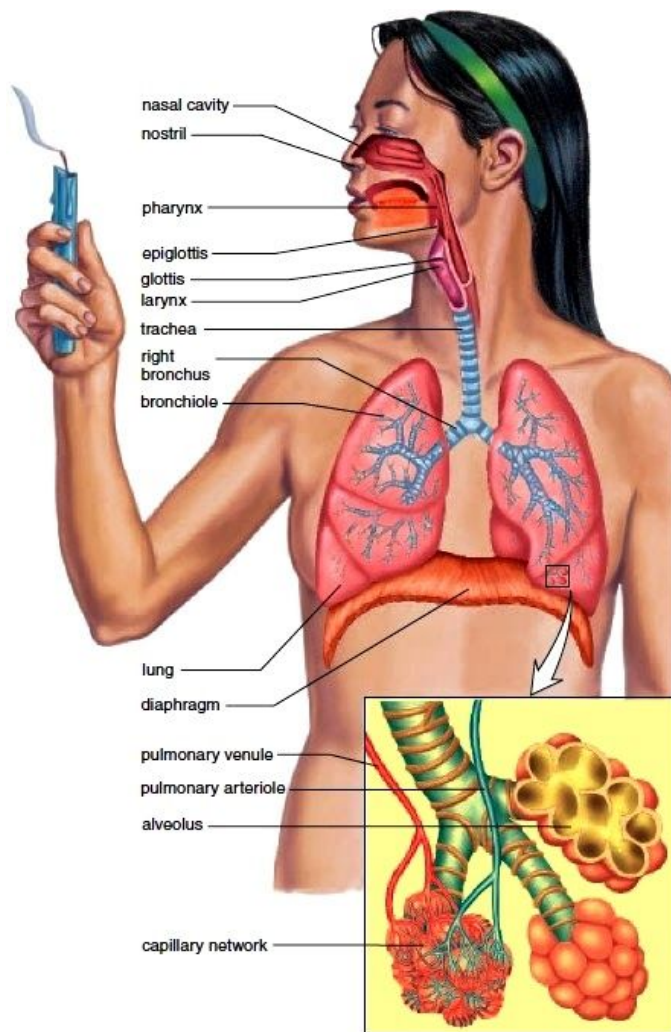
Parts of the Respiratory System



Respiratory System

How the Respiratory System Works

Most of the organs of the respiratory system help to distribute air, but only a tiny, grape-like alveoli and alveolar ducts are responsible for actual gas exchange. The Respiratory System consists of the upper respiratory tract, including the nasal cavity, sinuses, pharynx, and larynx, and the lower respiratory tract, including the trachea, lungs, bronchi, and diaphragm. It is important to note that the respiratory system is dependent on the proper functioning of the circulatory system as the O₂ and waste CO₂ are carried in the bloodstream.



Upper Respiratory Tract

- **Nasal Cavity (aka the nose):** a sensory organ serving as a passageway that warms and moistens air, and has hair like processes (cilia) filter the air before it reaches the lungs.
- **Sinuses:** a connected system of hollow cavities in the skull made up of soft, pink tissue called mucosa, between an inch to millimeters long. The sinuses are located in your cheekbones (maxillary sinuses, the largest), the low-center of your forehead (frontal sinuses), between your eyes (ethmoid sinuses), and in bones behind your nose (sphenoid sinuses).
- **Pharynx (aka the throat):** a funnel shaped tube acting as a passageway for air and food. The lowest portion of the pharynx joins the esophagus (food tube).
- **Larynx (aka the "voice box"):** is lined with mucous membrane, two folds of membrane divide the larynx in two, between these is the *glottis* which is the narrowest part of the air passage. The glottis is protected by a lid of fibrocartilage (the *epiglottis*), this closes over the glottis when you swallow.

Lower Respiratory Tract

- **Trachea (aka the "windpipe"):** is a tube composed of cartilage and lined with mucus membrane lying in front of the esophagus. The trachea diverges into the right and left bronchi.
- **Bronchi:** are "C" shaped rings of cartilage lined with ciliated mucous membrane that cleans out dust particles. The bronchi branch enters the lungs, these further divide into *bronchioles* and *alveoli* which transfer gases in the lungs.
- **Lungs:** are the main organ of respiration. In the lungs millions of *alveoli* and blood capillaries exchange oxygen and carbon dioxide.

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- **Diaphragm:** the main muscle of respiration located at the base of the thoracic cavity. The muscle contracts and flattens so that the thorax and lungs have room for incoming air causing you to inhale, it then relaxes causing you to exhale

Decoding Medical Language

<i>component</i>	<i>meaning</i>	<i>example</i>
A-	lack of	anosmia = lack of the sense of smell
PNEA-	breath	dyspnea = difficult or painful breathing
BRONCH-	bronchi	Bronchoscope = instrument to examine the bronchi
LARYNG-	larynx	laryngitis = inflammation of the larynx
PULMO-	lung	pulmonary metastases = lung secondaries
PNEUM-	lung / Air	pneumonia = severe infection of the lungs
RHINO-	nose	rhinoplasty = cosmetic surgery, a 'nose job'

Nourishing the Respiratory System

Methods, techniques and therapies for nourishing the Respiratory System through a holistic and intersectional lens:

- Exercise + Rest! [Getting enough exercise makes your lungs stronger and better at giving your body the oxygen it needs. It also helps to boost your immunity.]
- Pranayama or breathing techniques
- Avoid smoking nicotine, tobacco, or any other plant ancestor excessively
- Avoid harmful environmental factors such as smoke, dusts and chemicals
- Wash your hands regularly to prevent infections
- Bring plants into your living + work spaces
- Eat well with many opportunities for vitamin-rich
- Drink plenty of water
- Herbal medicine!!!

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Herbal Actions for the Respiratory System

- **Expectorant:** an expectorant facilitates the cough reflex, helping to expel accumulated mucus and congestion from the lungs and bronchioles (the lower respiratory tract)
 - **Stimulant Expectorant:** stimulant a depressed respiratory system.

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- **Relaxant Expectorant:** soothe, calm, cool, and moisturize the respiratory system that is overly inflamed, hot, and tense.
Ex: Lobelia (*Lobelia inflata*), Marshmallow (*Althea officinalis*), Licorice (*Glycyrrhiza glabra*), Mullein (*Verbascum thapsus*), Coltsfoot (*Tussilago farfara*), Wild Cherry (*Prunus serotina*), Pleurisy root (*Asclepias tuberosa*), Comfrey (*Symphytum officinale*), Hyssop (*Hyssopus officinalis*), Skunk Cabbage (*Symplocarpus foetidus*)
- **Decongestant:** clears out the upper respiratory tract, whereas an expectorant site of action is the lower parts of the tract (bronchi and lungs).
Ex: Horseradish (*Armoracia rusticana*), Yerba Mansa (*Anemopsis californica*), Eyebright (*Euphrasia officinalis*), Bayberry (*Myrica cerifera*), Thyme (*Thymus vulgaris*), Oregano (*Origanum vulgare*), Peppermint (*Mentha x piperita*), Goldenseal (*Hydrastis canadensis*), Elderflower (*Sambucus spp.*), Chamomile (*Matricaria recutita*), Ephedra (*Ephedra sinica*)
- **Antitussive:** suppresses and inhibits a cough.
Ex: Coltsfoot (*Tussilago farfara*) and Wild Cherry Bark (*Prunus serotina*), Lobelia (*Lobelia inflata*)
- **Demulcent:** relieves irritation of the mucous membranes in the mouth by forming a protective film. Offer it in cases of dry coughs.
- **Astringent:** use in the upper respiratory system when the tissues are lax and there's a leakage of thin watery mucus. Ex: Oak bark (*Quercus alba*), Sage leaf (*Salvia officinalis*), Eyebright (*Euphrasia officinalis*), Goldenrod (*Solidago canadensis*), Nettle leaf (*Urtica dioica*), Goldenseal (*Hydrastis canadensis*), and Oregon Grape (*Mahonia aquifolium*)
- **Relaxant (antispasmodic):** relaxes overly irritated and spastic cough reflex.
Ex: Lobelia (*Lobelia inflata*), Ephedra (*Ephedra sinica*), Black Cohosh (*Cimicifuga racemosa*), Skunk Cabbage (*Symplocarpus foetidus*), Thyme (*Thymus vulgaris*), Beebalm (*Monarda fistulosa*), Skullcap (*Scutellaria lateriflora*), Wild Cherry (*Prunus serotina*).
- **Immunostimulant/Antimicrobial:** support with infections caused by microbes, bacteria and viruses.
Ex: Garlic (*Allium sativum*), Echinacea (*Echinacea angustifolia*), Thyme (*Thymus vulgaris*), Oregano (*Origanum vulgare*), Osha (*Ligusticum porteri*)
- **Respiratory Tonic/Trophorestorative:** restore the proper function and structure of a tissue that has become damaged or debilitated due to chronic stress or illness.
Ex: Cordyceps mushroom, Schizandra (*Schizandra chinensis*), Licorice (*Glycyrrhiza glabra*), Astragalus (*Astragalus membranaceus*), Codonopsis (*Codonopsis tangshen*), and Reishi (*Ganoderma lucidum*).
- **Diaphoretics:** induces perspiration, supportive to respiratory infections as they often are accompanied by fever.
Ex: Elderflower (*Sambucus spp.*), Lobelia (*Lobelia inflata*), Pleurisy root (*Asclepias tuberosa*), Thyme (*Thymus vulgaris*), and Oregano (*Origanus vulgare*)

Respiratory System

Coltsfoot

Tussilago farfara

Coughwort, Hallfoot, Horsehoof, Fieldhove, British tobacco



Actions: antitussive, demulcent, dry atrophy, expectorant, tonic, anti-inflammatory, antispasmodic, emollient, immunostimulant. Relaxant, topical tissue healer

<p>Spiritual Medicine:</p> <ul style="list-style-type: none"> - Associated with Venus, Water + Femininity - Increases psychic awareness - Opens us up to visions + drawing in prophetic dreams 	<p>Physical Medicine</p> <ul style="list-style-type: none"> - Encourages active elimination of the byproducts of infection, making it a safe and effective choice for short term use in any bad cough - Supportive to lung problems such as bronchitis, asthma, whooping cough (pertussis), taken for upper respiratory tract complaints including sore mouth and throat, cough, and hoarseness
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Juniper

Juniperus communis



Actions: antiseptic, antirheumatic, antibacterial, antimicrobial, antifungal, anticatarrhal, carminative, digestive tonic, diuretic, uterine stimulant, stomachic, renal vasodilator, hypoglycemic, depurative, rubefacient, nervine, vulnerary, antiseptic,

<p>Spiritual Medicine:</p> <ul style="list-style-type: none"> - Offers mental clarity - Energizes the body - Deepen the mind-body + emotional levels - Allied to bear energies 	<p>Physical Medicine:</p> <ul style="list-style-type: none"> - Supportive to the respiratory system + digestive tract equally - Clears congestion + improves breathing - Caring for bladder infections - Strong affinity for the kidneys - Detoxifies the body - Treats bacterial infections - An ally to the genitourinary system - Source of vitamin C
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Marshmallow

Althaea officinalis

Mallards, Mauls, Mortification Koot, Mallow, White mallow, Mortification root, Sweet we



Actions: demulcent, diuretic, emollient, tonic, nervine, relaxant, antispasmodic, nutritive, vulnerary, endocrine restorative, antitussive, mucilaginous, antibacterial

<p>Spiritual Medicine:</p> <ul style="list-style-type: none"> - Associated with Venus, Water + the moon - Protective + cleansing - Brings in fertility + love - Associated with death + rebirth 	<p>Physical Medicine</p> <ul style="list-style-type: none"> - Eases sore throats and dry coughs - Soothes effect on inflamed membranes in the mouth and throat when ingested orally, specifically a sore throat - Helps reduce dry coughing and prevent further irritation. - Treats digestive disorders, including heartburn, indigestion, ulcerative colitis, stomach ulcers + Crohn's disease - Helps with respiratory disorders such as asthma. - Allies: calendula, nettles, astragalus
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