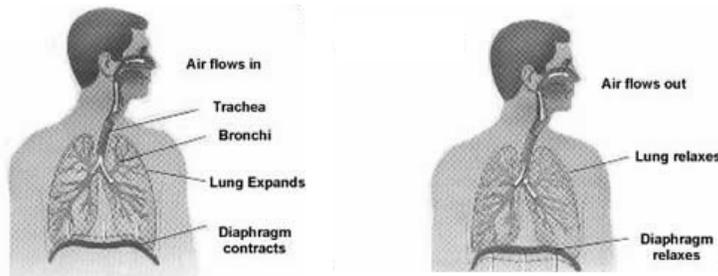


## CERTIFIED ADVANCED HERBALISM COURSE - SESSION 18: The Respiratory System

Respiration provides oxygen to the bloodstream. All body cells need oxygen to live and function properly. Without oxygen, body cells start dying within minutes.

Common respiratory concerns include runny nose, sneezing, allergies, post-nasal drip, coughs, colds, bronchitis, sinusitis, pneumonia and asthma. Associated problems can include earaches, sore throats, swollen lymph nodes and tonsillitis. Signs of chronic respiratory weakness include wheezing, shortness of breath and emphysema.



### Examining the Respiratory System

The respiratory system's primary function is to provide oxygen to the bloodstream. Once in the blood, oxygen travels through the circulatory system to all the cells of the body. The body cells need oxygen to create energy.

When air enters the body through the nose or mouth, it travels down the trachea or windpipe and into the bronchi. The bronchi branch into smaller tubes called bronchioles, which lead to alveoli. Alveoli are tiny air sacs clustered around the ends of the smallest bronchioles. These air sacs are surrounded by tiny, thin-walled blood vessels called capillaries. Through these thin walls, carbon dioxide leaves the body and oxygen enters it.

The lungs filter the air we breathe and only allow microscopic particles to actually reach the alveoli. The body also uses a mucous membrane to protect the airways and prevent dust particles and other irritants from being absorbed. Because of the lungs' ability to absorb substances into the bloodstream, some medications are administered this way. For example, many asthma sufferers use an inhaler that allows them to breathe medicine. Essential oils, when inhaled, are also absorbed into the blood via the lungs.

Although we think of the lungs as doing all of the respiratory work, the sinuses and trachea also play critical roles in this system. The sinuses filter and humidify the air we breathe. They also regulate the temperature of incoming air. The trachea, bronchi and bronchioles are lined with cilia – tiny hairlike structures that pulsate continuously, pushing mucus and foreign particles up toward the pharynx so they can be swallowed, broken down and eliminated.

The bronchi and bronchioles are surrounded by smooth muscle. In some people these muscle spasms make breathing very difficult. This condition is known as asthma, and it affects millions of Americans, often limiting their activities. Doctors at Tel Aviv University in Israel found that 45 percent of asthmatics who took a megadose of vitamin C (2,000 mg) before exercising were able to do so without coughing, sneezing and experiencing shortness of breath. Another 10 percent of participants also experienced benefits, though they were less significant.

You can take steps to promote respiratory health. Practice good hygiene (wash your hands frequently), don't smoke and avoid second-hand smoke, get plenty of sleep, exercise regularly, practice deep breathing, eat a balanced diet, be wary of air pollution and reduce the amount of stress in your life.

Many supplements also promote respiratory health. Two key herbs for this system are mullein and lobelia. Mullein, a mucilant, is very soothing to the respiratory tract. It has expectorant properties (promotes the elimination of mucus through the mouth) and helps heal inflammation of breathing passageways. Lobelia acts as an antispasmodic on smooth muscles, helping the bronchi to relax. It also has nervine and expectorant properties.

### Did You Know?

- On average, a person exchanges about 6 liters of air every minute.
- When the brain is deprived of oxygen, permanent brain damage can occur in as little as four minutes.
- At least 20 million Americans suffer from hay fever.
- Smoking contributes to the loss of mental capacity, including memory, in elderly people. This decline in memory is related to a decrease in blood flow to the brain. It happens at such a slow rate that the smoker does not feel it.
- The Environmental Protection Agency estimates that second-hand smoke causes approximately 3,000 lung-cancer deaths and 37,000 heart-disease deaths in nonsmokers each year.

### Respiratory System Analysis

If you have four or more of the following indications, you may consider nutritional aid to the respiratory system.

- Body odor and/or bad breath
- Eat meat more than 3 times a week
- Food allergies
- Smoking
- Regular consumption of dairy products
- Low endurance/stamina
- Exposure to air pollution daily
- Respiratory, sinus or allergy problems

### Respiratory System Suggestions

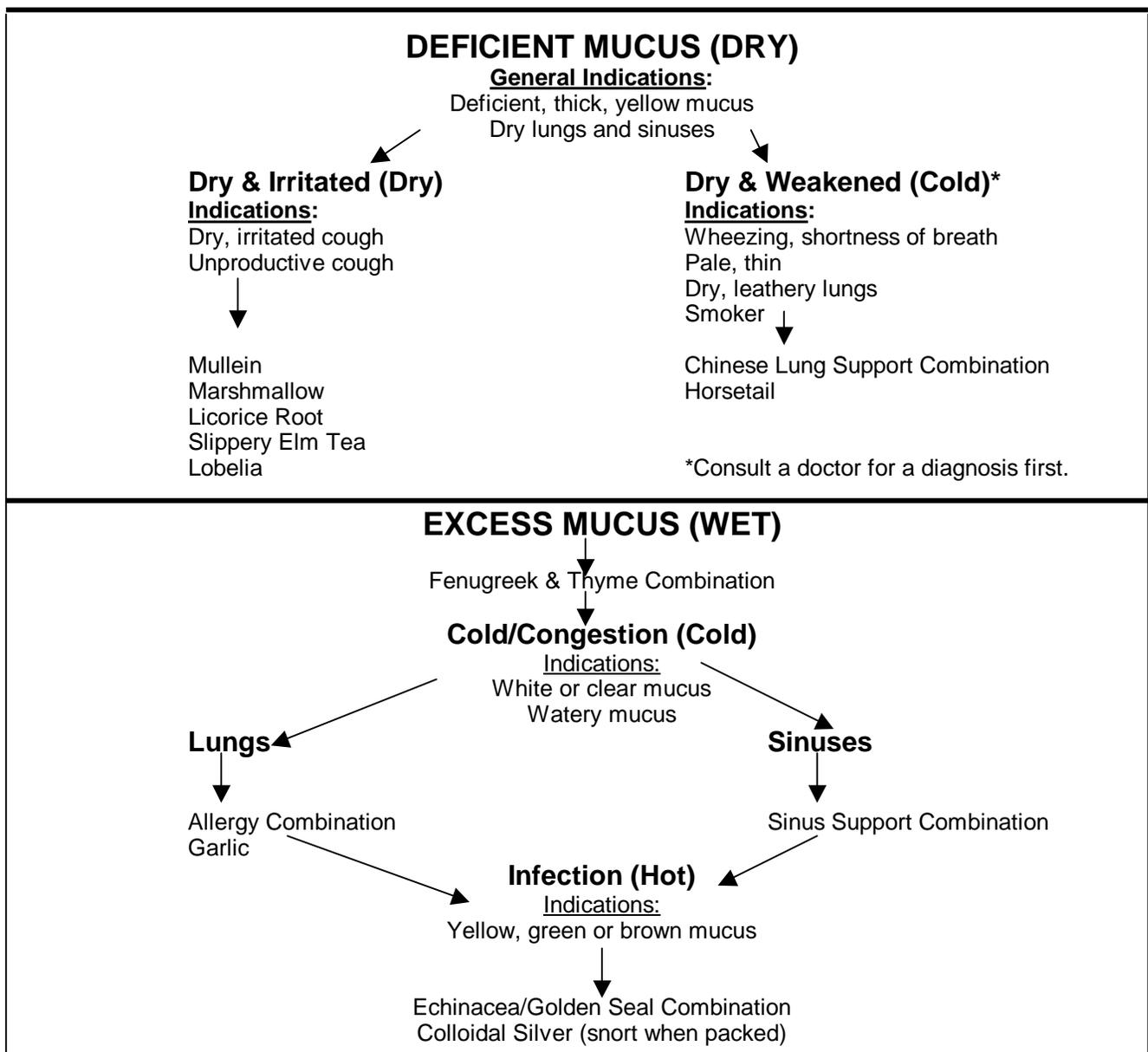
- Lose weight if overweight.
- Avoid smoking.
- Walk outside daily for fresh air.
- Avoid dairy products when congested.
- Practice deep breathing exercises.
- Sing and laugh.

### Respiratory System Products

The following products are listed with ingredients only as not to sell any particular product line. These ingredients can be purchased at any store you wish. If you are interested in the actual combinations listed below, please contact JLS directly.

- **Allergy Combination** – This combination combines boneset, fenugreek, horseradish, mullein and fennel to provide an effective formula for the respiratory system. This product works in the lungs and sinuses and is helpful in both acute and chronic conditions. Boneset contains the flavonoid quercetin, which has shown anti-allergy and anti-inflammatory activity in scientific studies. Mullein is a mucilant that soothes the respiratory tract and has expectorant action.
- **Mullein** – Mullein has both mucilant and astringent properties. Its powerful healing abilities make it useful for healing weak lung tissue and chronic respiratory congestion. It has proven expectorant action that likely arises from saponin compounds in the plant. Scientific studies suggest that the mucilage in mullein protects mucous membranes, preventing cell invasion by viral allergens.
- **Chinese Lung Support Combination** – This Chinese herbal combination of 16 herbs works to strengthen weak lungs.
- **Fenugreek & Thyme Combination** – These two herbs support healthy mucous membranes and sinuses. This product can be particularly effective on sinus headaches and congestion. It also works well as a general decongestant and expectorant.
- **Garlic** – A powerful, aromatic herb, garlic aids decongestion and expectoration. Garlic works especially well on lung congestion. It has known antibacterial and antiviral properties.
- **Sinus Support Combination** – This combination contains burdock, golden seal, parsley, althea, Chinese ephedra, capsicum, horehound and yerba santa. Sinus Support helps dry up excessive drainage and eliminate excess phlegm, especially when caused by allergens. It is particularly helpful for chronic sinus problems. As this product contains Chinese ephedra, do not exceed recommended daily use. Not for use by pregnant women or those with high blood pressure.

- **Echinacea/Golden Seal Combination** – Echinacea contains polysaccharides that stimulate the production of phagocytes (cells that engulf and consume foreign matter). Taken at the earliest sign of a cold or infection, echinacea may help cut the recovery time remarkably. Golden seal has infection-fighting abilities and anti-inflammatory properties. Together these herbs help alleviate chronic or sub-acute inflammation.
- **Breathe Easy Combination** – This combination of 16 Chinese herbs is a decongestant and expectorant designed to open blocked respiratory passages. It helps dilate the bronchioles, cleanses the lungs of mucus and reduces fluid retention in the chest.
- **Lobelia** – Lobelia is particularly helpful for relaxing bronchial spasms and easing respiratory congestion. It can also relieve pain caused by muscle cramps in other areas of the body such as the pelvic region.
- **Histamine Block Combination** – This combination helps reduce the symptoms of allergies and other respiratory irritation caused by pollutants and toxins. This combination is able to help stabilize mast cells, which contain the histamine released during an allergy attack. Bromelain is also included as an anti-inflammatory to help reduce the swelling of mucous membranes during allergic reactions.
- **Lobelia/St. John's Wort Combination** – As a substitute for nicotine, lobelia helps the body readjust from tobacco dependence, while St. John's Wort assists in maintaining calm nerves and a good mood. Alfalfa provides balance and adds needed nutrition for smokers.



## CONSTRICTED AIRWAYS\*

### History of Anxiety/Stress

#### Indications:

Wheezing  
Deep, gasping cough  
Bronchial constriction  
Nervous asthma  
Asthma attack



Breathe Easy Combination  
Lobelia  
Asthma Homeopathic

### History of Hayfever/Respiratory Allergies

#### Indications:

Itchy nose and ears  
History of frequent ear infections  
Red, irritated eyes  
Exposure to air pollution  
Allergic asthma



Histamine Combination  
Allergy Combination

\*Consult a doctor for a diagnosis first.

## NICOTINE USE\*

#### Indications:

Desire to stop smoking or using tobacco



Lobelia/St. John's Wort Combination  
Tobacco Detox Homeopathic  
Lobelia

\*It takes 21 days to make or break a habit.

## CERTIFIED ADVANCED HERBALISM COURSE – SESSION 18 – QUESTION & ANSWERS

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

E-MAIL: \_\_\_\_\_

Please be sure to fill out the information above, complete the test and e-mail or fax it back to us at 425-955-4639 (US) or at +353 1 647 5705 (EU) or e-mail it to us at [joyful@best.com](mailto:joyful@best.com) (US) or at [answers@med-herbs.com](mailto:answers@med-herbs.com) (EU). We will grade your question & answer session and will let you know if we have any questions or concerns.

1. The respiratory system provides \_\_\_\_\_ to the bloodstream.
2. Where does the exchange of oxygen and carbon dioxide take place?
3. What do cilia on the bronchi do?
4. What are some indications that this system is weak and may need nutritional aid?
5. Who can I help? List five people who exhibit the above indications and who may benefit from nutritional aid to the respiratory system.