Introduction to the Respiratory System

“When we draw in a breath, we share that air with all other human beings and all other life on our planet. Through respiration, our oneness with trees becomes a manifest fact, and our communion with the oceans has immediate impact. The reality of the planetary whole reveals itself, with implications for all human life, through the circulation of the gases and energy of the atmosphere. This vision underlies holistic healing as much as it does ecology. The anatomy and physiology of the respiratory system is a complex and beautiful embodiment of integration and wholeness.”

- David Hoffman

The respiratory system comprises one of our 3 systems associated with the mucous membranes, along with the gastrointestinal and urinary tracts. When treating any of these systems, we must remember that we are also focusing on the mucosa, and that many remedies which have an affinity for these secreting tissues will have an impact on one or more of these systems.

This system is of primary importance for maintenance of the overall vitality of the human organism, for it is responsible for bringing fresh oxygen into the bloodstream which nourishes every cell, organ and tissue of the body, as well as the elimination of carbon dioxide toxins which are the byproduct of metabolism. We can think of each individual cell as having its own respiratory system, as it draws in oxygen, and eliminates CO2 and water, and the lungs do this for the organism as a whole.

The Physical System

It is helpful in our study of the respiratory system to divide it into the upper and lower sections, as they have different anatomical structures and are prone to different types of diseases and infections which are treated slightly differently. The deeper into the system the problem is the more serious it is considered to be (IE bronchitis vs. pneumonia).

The Upper Respiratory Tract

• **Nose, Mouth, Sinuses, Trachea, Larynx, Pharynx:** The process of respiration begins with inhalation through the mouth bringing air down through the trachea, into the bronchial tree. We can think of it as being like an upside down tree, with the trunk being the main tube, which then splits into 2 bronchi, which continue to split and divide into a complex system of tubes (like limbs of a tree) that innervate the lungs.

The upper respiratory tract is commonly known as the *conducting zone*, whose sole purpose is to provide a passageway for incoming air to enter the lungs for gas exchange. This zone purifies, humidifies, and warms the incoming air to make gas exchange for effective and efficient.

The nose, sinuses, and mouth are strongly innervated by the lymphatic system, as well as mucous secretions which contain antibodies and macrophages (immunity) in order to neutralize any potential pathogens from invading the system. It’s important to understand that the respiratory system is extremely sensitive, as it is constantly in direct contact with the
outside world. Thus it is a primary locale for the immune system as well as filtering mechanisms to keep the area clean. This includes small hairs called villi and microvilli which act like brooms, which sweep away dust particles and other airborne substances, preventing them from entering deeper into the respiratory system.

While many people deem the tonsils as “useless organs” (which leads them to be consistently removed surgically), their primary function is as a filtering mechanism to prevent pathogens from entering the deeper parts of the respiratory system. They are essentially lymph glands, which are designed to trap bacteria and other pathogens. When these glands get congested and overworked, we see swelling in the lymphatic tissues and a sore throat due to stagnation of dead white blood cells, bacterial cells, mucous accumulation, and a vital inflammatory response.

Primary afflictions in the upper respiratory tract are typically short lived and acute, such as various inflammations, viral and bacterial infections, allergies, and lymphatic stagnation. They are quite effectively treated with natural therapeutics.

The Lower Respiratory Tract

• **Bronchial Tree, Alveoli, Lungs:** Below the trachea lies the lower respiratory tract, where the primary tube splits into the 2 bronchi which feed each lung. These tubules continue to divide from the bronchi, into the bronchioles, into smaller and smaller tubes which ultimately terminate at the alveoli, which are small air sacs where the exchange of oxygen, carbon dioxide and water takes place. Interestingly enough, the lungs are only about 10% solid tissue, the rest is filled with air and blood. The 3 million alveolar ducts which contain the alveoli are the smallest functional units of the lungs, and are innervated by a multitude of capillaries which deliver carbon dioxide laden blood where it can be exchanged for oxygen. This fresh oxygenated blood is circulated through the pulmonary veins to the heart, where it is then pumped throughout the rest of the system to oxygenate the body.

Once again of importance to our understanding of the lower respiratory system is the fact that they are coated with mucosa which secrete antibody rich fluids which protect, coat and soothe the entire tract. The healthy state of the lungs is slightly moist, with a clear thin layer of immune rich mucous- thus to treat the lungs is to primarily treat the mucous membrane and to effectively do this, we must know the underlying state of the membrane (hot/cold, wet/dry).

Another important consideration with the bronchial tree is that it is lined with smooth muscles, which enable the tubules to expand and contract with the breath. Common conditions such as asthma are an issue with the neuromuscular junctions in the bronchi, constricting the smooth muscles and thus reducing the flow of air into the lungs. This is a critical area of the respiratory system to assess, whether the smooth muscles are overly contracted or relaxed, which determines the amount of air that is able to enter the system, and thus oxygenate the body.
The lungs contain a protective membrane called the **pleura**, which contain synovial fluids which help to lubricate the lungs and protect it from being worn down due to the friction from constant expansion and contraction. There is an inner and outer pleural membrane. The process of breathing itself is innervated both by the autonomic and central nervous systems- thus breathing is an involuntary process, we do it automatically, and yet we can bring it under our conscious control. The expansion and contraction of our breathing is vitally important aspect of not just respiration, but our entire physiology, for the movement of the diaphragm (which is responsible for breathing) also helps with the circulation of the blood and lymph, massages the internal organs, and keeps everything moving internally.

Lastly, it’s interesting to note that the lungs and stomach are both innervated by the same nerve in the brain- the **vagus nerve**. This nerve is responsible for “squeezing” air out of the lungs, as well as the contents of the stomach. Thus the stomach and the lungs are very intimately connected on a physiological level, but we also see them energetically connected, as they are main sites of accumulation of kapha, or dampness. In Ayurveda, their primary method for cleansing the lungs of excess kapha or mucous is through emesis or vomiting. We also see that many classic expectorants and lung herbs also have emetic properties, such as Lobelia (*Lobelia inflata*), Licorice (*Glycyrrhiza glabra*) and Calamus (*Acorus calamus*).

The lower respiratory system is commonly called the **respiratory zone** where actual gas exchange happens, as compared to the **conducting zone** of the upper RT.

**The Adrenals, Thyroid and the Lungs**

Another important point worth mentioning here is the effect of our neuroendocrine system upon respiration. Hypothyroid conditions tend to create more of a damp condition in the lungs (throughout the whole body really), and hyperthyroid may contribute to excessive heat and dryness due to excessive metabolism.

When the adrenal glands are secreting an excess of stress hormones (epinephrine, adrenalin etc.) the bronchiole tree is dilated so we can get more oxygen to the system to help us fight off an enemy or run away from them. Over long term periods of stress this excessive dilation can lead to dryness in the lungs, heat and irritation. Conversely, parasympathetic excess will lead to an overly constricted respiratory tract, shallow breathing, tightness. Interestingly enough, the allopathic treatment of asthma is with steroid type inhalant drugs that help dilate the smooth muscles and bronchioles, and also tend to max out the adrenals. In Chinese Medicine they say that the thyroid and adrenals are the “gateways to the lungs.”

Critical to effective treatment of the respiratory system is to determine first and foremost whether the imbalance lies in the upper or lower respiratory system. From there it’s important to consider the specific state of the mucosal membrane, and whether it is too hot, cold, damp or dry. Considering the tensile state of the smooth muscles is critical here as well, whether it is overly tense or relaxed. Let’s take a look at what those dynamics look like specifically in the respiratory system.
Pathological Patterns and Tissue States

Again, of the utmost importance in treating the respiratory system (any system really), is to decipher the underlying energetics behind the symptom. A wet cough is treated very differently than a dry cough, and in fact, using an herb for a dry cough in a wet cough will indeed aggravate it and make the person feel worse. So it is vitally important to first determine the energetics, and then know which remedies match that pattern.

The 6 Tissue States

• Heat/Excitation: Generally speaking this would be generalized inflammation of the respiratory tissues, along with an overall irritation of the mucosal membranes. There is often great sensitivity here, with the simple act of drawing in a breath being enough to trigger the cough reflex. We will often see overstimulation of the immune system, accompanied by fever, redness to the skin, and heat. The tongue will often be red, or with a yellowish-orange coating, along with the cheeks and the pulse will typically be rapid, bounding, and close to the surface. With this tissue state, think of the Fire Element- everything is rising up, thus there can be headaches, nosebleeds, red itchy eyes, sore throat, and dryness due to excessive heat. We would think of this tissue state as Fire in the lungs, or excessive Pitta. In astrology we could think of it as Mars or the Sun in Gemini, or possibly Cancer if in the lower lobules of the lungs. A critical determining factor of heat in the respiratory system is if the sputum is yellow to green in color. This typically indicates that there is an excess of heat cooking down the fluids in the mucosa. It’s commonly though that if the mucous is yellow/green then it’s a viral infection and not bacterial, but this is somewhat irrelevant to the holistic herbalist-rather it is an indicator of the ecology of the tissues. This tissue state we typically want to treat with demulcents and relaxants/anti-spasmodics/sedatives to decrease the excessive heat, cool inflamed tissues, and restore the proper secretions of mucous. Some good remedies for heat/excitation in the respiratory tract include: Wild Cherry bark (Prunus serotina), Hawthorn berry (Crataegus spp.), Yarrow (Achillea millefolium), Elderberry (Sambucus nigra, S. cerulea, or S. canadensis), Rose (Rosa spp.), and Licorice (Glycyrrhiza glabra).

• Cold/Depression: This is our classic tissue state associated with many coughs, colds and flues and we see often being behind acute conditions, though sometimes chronic conditions have this tissue state at their root and create a much more serious situation. If we think of the mucous membrane secretions as being depressed, then they are not able to secrete antibody rich mucous, and what is there simply sits there, stagnates and becomes toxic. The immune system thus becomes depressed and we see the potential for chronic respiratory conditions. Because the entire system is depressed in its function, breathing is difficult, and the cough reflex will not be strong enough to be fruitful- the person will be weak, debilitated, and have very low energy due to lack of oxygenation to the tissues. Symptoms include systemic coldness, shallow and insufficient respiration, chronic respiratory infections, weak cough reflex with inability to expectorate stagnant mucous, white heavy dense mucous, wet unproductive cough, swollen lymph nodes, poor circulation and oxygenation of the tissues leading to a purplish-pale complexion. Tongue will typically have a thick white coat, pulse heavy, low, and/or slow. Everything is slowing down with this tissue state, there is a great need for pungent stimulants to get things moving again, irritant expectorants, and warming remedies. Common remedies for this tissue state include (note
these are all essentially stimulant expectorants): Elecampane (*Inula helenium*), Garlic (*Allium sativa*), Onion (*Allium cepa*), Mustard (*Brassica nigra or alba*), Hyssop (*Hyssopus officinalis*), Thyme (*Thymus vulgaris*), Oregano (*Origanum vulgare*), Yerba Santa (*Eriodictyon californicum*), Propolis, and various Conifers (Pines, Spruces, Hemlocks, etc)

- **Dry/Atrophy:** This would be an expression of excess Vata in the lungs, as this dosha is the only dry one. Yet whenever we see dryness in the lungs there is oftentimes an accompanying picture of heat and irritation. In essence here we are seeing a lack of production of mucus in the respiratory apparatus, which can be due to a root cause of hyperadrenalism causing the bronchi to be constantly dilated drying out the system (another vata characteristic, as their primary emotional state is fear). There will typically be a dry, unproductive cough because the dryness causes the mucus to tightly adhere to the membrane. There will usually be an overall weakness in the system as the cartilage and connective tissues can become atrophied, leading to neuromuscular weakness. Again with dryness we will typically see irritability and oversensitivity of the tissues, difficulty breathing deeply, overall weakened respiration, pale dry skin, poor oxygenation of the tissues (blue under fingernails), dry cracked tongue with little coat, or potentially yellowish coat if excessive heat. The pulse is typically weak. Dry atrophy in the lungs will be treated with soothing cooling demulcents and sweet tonics, oily and salty remedies to help build up the tissues and bitters to help restore the mucosal membrane. Common remedies for this tissue state include (note these are all essentially demulcents): Marshmallow (*Althaea officinalis*), Slippery Elm (*Ulmus rubra*) though any Elm will due, Comfrey (*Symphytum officinale*), Mullein (*Verbascum thapsus*), Coltsfoot (*Tussilago farfara*), Plantain (*Plantago major*), Fenugreek (*Trigonella foenum-graecum*), Pleurisy root (*Asclepias tuberosa*), Red Clover (*Trifolium pratense*), Astragalus (*Astragalus membranaceus*), and Licorice (*Glycyrrhiza glabra*).

- **Damp/Relaxation:** We often see laxity in the upper respiratory system, with things like runny nose and allergic reactions to pollens and such. Anytime there is relaxation, the fluids that are discharged tend to be thin, clear and watery. The sinuses will drain down the throat and into the lungs creating a cough, as well as out the nostrils giving the classic “runny nose.” Due to the excessive secretions, the glands can become swollen and inflamed (tonsils, adenoids, mucus membranes), everything begins to thicken up- the face swells and puffs up, there is poor circulation to the brain, the mouth hangs open because nostril breathing is impossible which causes everything to dry out below. Then the vessels become overly lax and there is a lack of circulation and poor gas exchange at the lungs, causing systemic low energy. Common symptoms are chronic post nasal drip, sinusitis, itchy watery eyes, sore throat, watery expectoration, swollen glands, middle ear infections, dull mind, pale to purple skin. Tongue will tend to have streamers down the sides, frothy around lung positions, relaxed pulse. Here we want to reach for astringents, as we typically always do with this tissue state: Oak (*Quercus alba*), Raspberry (*Rubus idaeus*), Sage (*Salvia officinalis*), Bayberry (*Myrica cerifera*), Goldenseal (*Hydrastis canadensis*), Ephedra (*Ephedra sinica*), Red Root (*Ceanothus spp.*), Eyebright (*Euphrasia officinalis*), and Yerba Mansa (*Anemopsis californica*).

- **Damp/Stagnation:** This is the opposite side of dampness from the relaxation tissue state, thus rather than thin watery secretions freely flowing, the mucus in the stagnation/toxic state would be thick and obstructive. In this case the lungs would be edematous (puffy), as there is increased pressure from the pooling of mucus and fluids causing congestion in the bronchi. Common symptoms are thick blue-white sputum, blue under fingernails, swelling in the neck, rashes, anemia, hiccups, routers, and a sluggish pulse. Treatment here would be for diuretics, and expectorants to help move the mucus. Common remedies include: Coriander (*Coriandrum sativum*), Water Melon (*Citrullus lanatus*), Garlic (*Allium sativa*), Fennel (*Foeniculum vulgare*), Ginger (*Zingiber officinale*), Watercress (*Nasturtium officinale*), Turmeric (*Curcuma longa*), and Elecampane (*Inula helenium*).
tissue state does not move easily. It is thick, sludgy, heavy, sticky, and congested, oftentimes with yellowish to green coloration as compared to thin clear and watery, but can also be thick, white and “curdy.” The old doctors called this “catarrh,” the Ayurvedic physicians call it “ama,” and Samuel Thomson would have called it “canker.” This tissue state can be accompanied by coldness or heat, which is an important distinction to consider, but regardless, fluids are stagnating. This more often than not will cause the lymphatic fluids to congest and stagnate, especially around the neck, throat and armpits, and potentially down to the colon and digestive system (remember the connection between the stomach, large intestine and lungs). Mucous secretions from the lungs are its primary defense mechanism, when this process becomes stagnant, infections are able to sink deeper into the tissues. The most important thing one can do here is help expectorate the stagnant mucous, clear the mucous membranes so a fresh layer of antibody rich mucous can be secreted. Overall sensation will be heavy, sedated, depressed, with a heavy watery unproductive cough, swollen lymph nodes, congestion of the sinuses and lungs, yellowish-green mucous (if heat is present), thick and white mucous (if cold is present). The tongue will often appear damp and swollen, a white coat if cold, a yellow coat if hot- pulse difficult to find and obscure. This is where we use stimulant expectorants, and pungent aromatics: Osha (*Ligusticum porteri*), Lomatium (*Lomatium dissectum*), Balsam root (*Balsamorhiza sagittata*), Elecampane (*Inula helenium*), Thyme (*Thymus vulgaris*), Oregano (*Origanum vulgare*), Horehound (*Marrubium vulgare*), Gumweed (*Grindelia camporum*), Balm of Gilead aka Poplar Buds (*Populus trichocarpa*), and Propolis.

- **Wind/Tension:** This tissue state we can think of as vata derangement in the lungs, which we could think of as constriction of the bronchi leading to intermittent, spastic coughing fits, tightness in the chest, and difficult shallow breathing. There will be a certain sensitivity to the entire respiratory tract. Coughing fits can be quite intense and strong, and potentially lead to gagging and vomiting (which in fact clears the stomach and thus the lungs from an Ayurvedic perspective). As vata is not only tense, but also dry, oftentimes wind tension will be accompanied by dry mucous membranes and sometimes heat. Like all wind conditions, symptoms will come and go, with spastic fits of coughing followed by nothing. Deep breathing will be difficult due to tension, along with pain in the chest and increased sensitivity. This is the primary tissue state behind most asthmatic conditions. Symptoms are often better with stillness and worse with movement (movement aggravates wind). The tone of the pulse will feel hard and tight, like a guitar string wound too tight. It may be intermittent or “wiry” feeling. The tongue may quiver, be red and/or coated or swollen on one side only. Here we want to use primarily anti-spasmodic/relaxant remedies, such as: Lobelia (*Lobelia inflata*), Black Cohosh (*Cimicifuga racemosa*), Skullcap (*Scutellaria lateriflora*), Skunk Cabbage (*Symplocarpus foetidus*), Wild Lettuce (*Lactuca virosa*), Valerian (*Valeriana officinalis*), Mullein (*Verbascum thapsus*), and Pleurisy root (*Asclepias tuberosa*).

A useful pattern to keep in mind with the lungs is that oftentimes the tissue states will be intermixed with one another. In my experience I have noticed that oftentimes coughs fall into one of 2 categories: hot-dry-tense, and cold-wet-relaxed. Of course, people can embody variations, for example a cough can have heat and dryness up above, and coldness and dampness down below. This is where formulation comes in handy so you can mix herbs together in a way that matches the persons specific symptomatic picture.

© The School of Evolutionary Herbalism. All Rights Reserved.
**Evaluation Criteria**

In regards to the respiratory system (in my opinion), the best evaluation criteria is to listen to the sound of the cough (if we are talking about the lower respiratory tract) and to determine the specific quality of the mucous (hard, soft, yellow, green, white, stuck, heavy, light, stringy etc.). Luckily, the respiratory system is a relatively superficial system (close to the exterior) and can be observed directly with our senses. Of course looking to the tongue and pulse can be excellent confirmations for what we suspect may be happening, but asking a few simple questions and paying attention to what we hear are the best methods.

**Pulse:** The pulse position for the lungs is on the right hand, 1st position (closest to the thumb), in the deep position. Notice that the superficial position here is the large intestine, which is the yang organ and the lungs are the yin organ for the Metal Element in Chinese Medicine. From an Ayurvedic perspective, we are reading vata, who also rules both the large intestine and the lungs, for it is the wind or ether elements. When reading the pulse for the lungs we want feel for tension in the vessel wall or intermittency in the rhythm to feel for any sort of spasm or tension. Rapidity will indicate heat/excitation, and slow, heavy and dullness will indicate depression or dampness.

**Tongue:** On the tongue, the lungs are located towards the front 1/3 of the tongue on the left and right side of the center line. Here we want to look to the color, coat and moisture to determine the state of the lungs. Ideally there should be slight amount of moisture, light pink coloration and a thin coating- not thick and white, nor yellow. Look for any ruts or indentations in these places as they could indicate a constitutional lung weakness or chronic debility. Also look for tooth marks on either side which can indicate bronchial issues in the past or pneumonia (Margi Flint). Frothy mucus along the edges can indicate excessive phlegm/kapha accumulation in the lungs or shallow breathing. Also look to the side of the tongue, closer to the bottom and look for dryness.

**Face:** On the face, the primary location for the lungs is the cheeks. Look to the coloration of the cheeks- white indicates lack of oxygenation, gray indicates lack on vitality or the presence of toxins. Redness as always indicates heat/excitation/irritation. Look to see for rippling lines moving up the cheeks to the center of the eye socket. Be aware of the nature of the cheeks, whether they are sunken, sallow etc. Vertical lines between the eyes may indicate tension in the diaphragm muscle and horizontal lines at the bridge of the nose is another indicator for the lungs, as well as the adrenals. That line typically is for asthmatics and general shallow breathing.

**Other Indications:** Look to the index fingernail and note if there is a blue section near the cuticle and another blue section towards the tip. This indicates lack of oxygenation and circulation to the periphery. This is a good indication for Cordyceps. With asthma the index fingernail will start to curl or flip up, spongy and barely attached nails indicates tuberculosis, bronchitis or deeper chronic lung conditions (Margi Flint).

**The Energetic System**

The respiratory system holds a significant symbolic quality to it, as it is directly related to the vital spirit of life. The root of the word “spirit” means to breathe in, and thus our breath is our
direct connection to the invisible source of life- it’s the same root of the word “inspire.” Of course, conscious breathing is at the root of most methods of meditation, calming the mind and connecting to the vital force. It is through the breath that we directly receive prana, that vital life force which animates all of existence and imbues our being with something greater than the physical oxygen that we receive with every inhalation.

Our breath connects us to the world around us. The very fact that we breathe in oxygen and exhale carbon dioxide, and that plants breathe in carbon dioxide and exhale oxygen reveals the profound circulation of vital force between ourselves and the botanical kingdom. Gaia itself is constantly doing this and thus maintaining the biosphere of the planet- it is a deeply significant pattern and reveals much of the secrets of alchemy. In that tradition the inhalation and exhalaion of a planet is called the “sidereal vapor” and is responsible for the specific energetic influence of a particular planet.

**Vata:** From an Ayurvedic perspective, the lungs are one of the primary organs ruled by the vata dosha. Being comprised of the Air and Ether Elements, this makes sense as the lungs primary function is to regulate the intake and outtake of these Elements- Air through oxygen, Ether through prana. It’s interesting to note that vata also governs the large intestine, which anyone who has smoked Tobacco knows that when we inhale that smoke the large intestine oftentimes starts to move!

Vata also governs the nervous system, which shows us how our breathing is tied in with the state of the nervous system. It’s interesting to note that during periods of stress the breathing becomes notably shallow and short, and whenever we need to calm down, simply slowing down our breathing is a good first step. It also shows that excessive neural stimulation typically makes the breath short and shallow and conversely that short shallow breathing is a contributing factor to vata related nervous system problems like tension, anxiety and nervousness.

While vata rules the lungs and respiratory system in general, it’s important to note that it is a site of accumulation for kapha. We see this in infants and young children, who are in the kapha phase of development, and tend to get mucusy, heavy, damp respiratory conditions. The main site of accumulation for kapha in the GI is the stomach, thus when the stomach gets full of kapha it enters the body and then typically accumulates in the lungs. Hence the use of emetics in Ayurveda as a means for cleansing the lungs and respiratory system. This is also why oftentimes people who are sensitive to dairy get chronic sinus infections and have a lot of mucous in the lungs when they eat milk or cheese, both foods of which are “kapha-genic.”

In Chinese Medicine the lungs hold grief- this may be something to look into with folks that have chronic respiratory problems; it’s probably not that important for a simple acute situation. I have used Mullein to help with people who hold in grief, it softens those places that have turned hard. Grief is like a stone that sits in the chest, weighing down the heart and shutting one off from the outside world. Of course, grief is a very natural process- when someone you love dearly dies, grief is a critical part of the healing process, as well as the maturation of the soul. When grief if not expressed, that’s where one would start to see some problems, as that emotional state is trapped in and will find a physical way to express itself.
Advanced Clinical Herbalism: Weekend Two - Respiratory System

Thus when someone has chronic respiratory issues, I’m always looking to see if there some sort of trauma or something that happened in the person’s life that in most circumstances should generate a grieving process, and making note if that person just shrugged it off, or stuffed it down. Sometimes a few sessions with a therapist can really help that to move right along, as well as some herbs.

It is also said that the adrenals and thyroid are the “gateway to the lung,” which makes sense as these aspects of our endocrine system determine much of our heart rate and breathing. In Ayurveda, the lungs are a secondary site of accumulation of kapha, hence their tendency to get heavy, damp and mucusy. This is connected to the stomach as the primary site of accumulation in the digestive system. Thus chronic damp lungs indicates chronic damp stomach- avoid dairy and build digestive fire.

### Astrological Correspondences of the Respiratory System

<table>
<thead>
<tr>
<th>Organ</th>
<th>Element</th>
<th>Planet</th>
<th>Sign</th>
<th>Houses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sinuses</td>
<td>Air</td>
<td>Mars, Mercury</td>
<td>Scorpio (rules nose), Cancer (rules cavity), Aries (rules the head in general)</td>
<td>1st, 4th, and 8th</td>
</tr>
<tr>
<td>Throat</td>
<td>Air</td>
<td>Venus, Mercury</td>
<td>Taurus</td>
<td>2nd</td>
</tr>
<tr>
<td>Lungs</td>
<td>Air/Ether</td>
<td>Mercury, Jupiter (gas Planet), Neptune</td>
<td>Gemini, Cancer (lower lungs), Pisces (weak lungs)</td>
<td>3rd, 4th and 12th</td>
</tr>
</tbody>
</table>

**Astrology:** The primary rulerships for the respiratory system from a Planetary perspective are Mercury, and for the Signs Gemini and Taurus. Here we see that Mercury is the main ruler of the lungs and respiratory system as a whole, along with Gemini (who Mercury rules). The Sign of the Twins represents the pairs of the body (2 arms, hands, lungs). Gemini is also a Mutable-Air Sign, which is the quintessential vata constitution and lung rulerships, as the primary exchange point of the Air Element. It’s interesting to note that people with strong Gemini influences tend to be nervous and anxious people as well, as their nervous system is often wound tight. They often have a need for nerve and lung tonics.

Taurus also rules aspects of the respiratory system due to the Bull’s association with the throat, hence this Sign governs the pharynx, larynx, tonsils, adenoids, and the thyroid. As Venus is the Planetary ruler of Taurus, she also bears some correspondences to this region of the body. The throat of course is the area of our being associated with communication, ruled by Mercury, but also our creative self-expression, which is more under the dominion of Venus.
Some other important considerations with our astrology of the respiratory system are that Pisces has some relationship to the lungs, along with the Fishes ruling Planets Jupiter and Neptune. Piscean’s may tend towards weak lungs if poorly situated in the chart. Our other Water Sign, Cancer, also has some relationship to the lungs- primarily the lower lobules of the lungs and the pleural membrane, which again is the fluid filled sac which lubricates the lungs and reduces the friction of constant expansion and contraction.

The upper respiratory system has various dynamics at play. Scorpio is said to rule the nose, the first part of the upper respiratory system, and the sinuses are governed by Cancer who is associated with the cavity there, as well as all the mucous membranes coating the entire system. Aries as the ruler of the head in general will have some correspondence here as well, along with the allergic reactions that are oftentimes at the root of sinus problems (hayfever etc.)

Thus, when observing a chart in someone with a respiratory tract infection, these are the primary areas of the chart that you want to observe. Look to where Mercury is currently transiting and anything passing through the 3rd House or the Sign of Gemini. Transiting Mars is likely to produce hot and dry respiratory conditions, whereas Saturn is likely to produce cold and depressed respiratory function. Remembering that the respiratory system is primarily governed by the vata dosha, we can look to the Mutable Cross (remember Mutable = vata) of the chart to see what is going on there- this would be the Signs of Gemini, Sagittarius, Virgo and Pisces. Note here that both Gemini and Virgo are ruled by Mercury, and Sagittarius and Pisces are both ruled by Jupiter.

I have also noticed over the years that it is very common for people to get respiratory tract infections when Mercury goes retrograde.

**Primary Herbal Actions**

- **Expectorant**: This is one of our primary herbal actions associated with the respiratory system. It’s important to truly understand this action, as oftentimes it is used to simply denote something that “does something” in the lungs. Specifically, an expectorant facilitates the cough reflex, helping to expel accumulated mucous and congestion from the lungs and bronchioles. They do not stop you from coughing, rather, they help your cough become more productive. There are many different types of remedies that have expectorant activity, and knowing the sub-actions of those herbs is imperative for proper remedy selection. In general though, the best way to divide the expectorant action is to differentiate between stimulant and relaxant expectorants, for they are used in very different kinds of coughs.

- **Stimulant Expectorant**: As the name implies, a stimulant expectorant helps to stimulant a depressed respiratory system. In a sense, they agitate or irritate the tissues into a greater level of activity. These are primarily used in coughs which are specifically **cold and damp**. We will see an overall kapha type nature of the person or the symptoms, with debility, lack of strength, and little to no coughing, yet with excessive mucous and moisture accumulating and stagnating in the lungs. Most stimulant expectorants are pungent, warming remedies which help to break up stagnant, dense, heavy mucous and irritate the local tissues to activate the cough reflex. Some classic stimulant expectorants...
are Osha (*Ligusticum porteri*), Thyme (*Thymus vulgaris*), Oregano (*Origanum vulgare*), Elecampane (*Inula helenium*), Gumweed (*Grindelia spp.*), Horehound (*Marrubium vulgare*), Poplar buds/Balm of Gilead (*Populus spp.*), Garlic (*Allium sativa*), and Balsam root (*Balsamorrhiza sagittata*).

- **Relaxant Expectorant:** These can be seen as the opposite of stimulant expectorants. These remedies tend to be soothing, calming, cooling, and moisturizing to a respiratory system that is overly inflamed, hot, and tense. They tend to relax excessive spasm in the smooth muscles lining the entire tract and increase mucous secretions from the membranes. We want to think of these for respiratory conditions that are **hot and dry.** Many relaxant expectorants will be acrid and demulcent, and generally soothing and cooling. They tend to produce a less viscous mucous secretion that helps to lift stickier mucous that has been “cooked down” on the membrane due to excessive heat. Examples of relaxant expectorants are: Lobelia (*Lobelia inflata*), Marshmallow (*Althea officinalis*), Licorice (*Glycyrrhiza glabra*), Mullein (*Verbascum thapsus*), Coltfoot (*Tussilago farfara*), Wild Cherry (*Prunus serotina*), Pleurisy root (*Asclepias tuberosa*), Comfrey (*Symphytum officinale*), Hyssop (*Hyssopus officinalis*), and Skunk Cabbage (*Symlocarpus foetidus*).

- **Decongestant:** A decongestant is a slightly different action than an expectorant in that it’s primary area of focus is on the upper respiratory tract, whereas an expectorant’s site of action is the lower parts of the tract (bronchi and lungs). These are typically warming, spicy, pungent remedies which help to drain excessive mucous from the sinuses and nasal passageways. The aromatic volatile oils in these plants typically have a direct upward motion of action, helping to disperse fluid accumulation clear the sinuses. And yet others are bitter mucous membrane tonics and/or astringents that help to dry up excessive secretions. These can be used in sinus infection, stuffy nose, and allergies. Examples of decongestant herbs are: 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*), and Ephedra (*Ephedra sinica*).

- **Anti-tussive:** This is not a standard action we typically think of using in herbalism, primarily because it is a suppressive action. An anti-tussive essentially suppresses and inhibits a cough. From a vitalist perspective, a cough is a good thing because it is expelling waste products from the lungs and clearing the respiratory tract. If we suppress that cough, we essentially allow whatever is creating the cough to proliferate and thus run the risk of extending the length of infection. Some herbs may have a slightly anti-tussive effect by relaxing tension in the respiratory system, but they aren’t necessarily shutting down the entire cough reflex- just modulating it. Most of these would be anti-spasmodic plants that help to relax the smooth muscles. Coltsfoot (*Tussilago farfara*) and Wild Cherry Bark (*Prunus serotina*) are 2 classic anti-tussive plants, as well as Lobelia (*Lobelia inflata*).

- **Demulcent:** This action is used for coughs that are distinctly dry. **Do not** give demulcent plants to someone with a cold, wet and boggy cough, as it will aggravate their condition. Here we want to see heat, tension and dryness. Demulcents will effectively sooth, cool, and moisten dried out mucous membranes in the respiratory tract. These are best prepared as a
cold water infusion. Our 3 classic demulcents for the respiratory system are Marshmallow (*Althea officinalis*), Slippery Elm (*Ulmus rubra*), and Comfrey (*Symphytum officinale*). Of course everyone is afraid of using Comfrey internally but it does have traditional use in this regard. Other good demulcients for the lungs are Licorice (*Glycyrrhiza glabra*), Plantain (*Plantago major*), Red Clover (*Trifolium pratense*), Coltsfoot (*Tussilago farfara*), and Mullein (*Verbascum thapsus*).

- **Astringent:** Astringents are primarily used in the upper respiratory system when the tissues are lax and there’s a leakage of thin watery mucous (IE runny nose). They can also be used to treat swollen lymph nodes, swelling of the mucous membranes, and sore throats, especially when there is excessive salivation making someone needing to swallow more, which is typically quite painful. Good astringents are 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 (anti-spasmodic):** This is a highly useful action for the respiratory system due to the fact that oftentimes during acute infection and triggering of the cough reflex, there can be excessive constriction in not only the bronchi, but throughout the whole organism. Sometimes people cough so hard they displace ribs! So our anti-spasmodic remedies can come quite in handy to help to relax an overly irritated and spastic cough reflex, especially if it is keeping someone from sleeping at night. Many of these remedies will also be relaxant expectorants. While there are many different anti-spasmodics in the western materia medica, none can beat Lobelia (*Lobelia inflata*) in this regard, as it has a specific affinity for the respiratory system and works reliably in low doses. Other antispasmodics can be used as well, such as Ephedra (*Ephedra sinica*), Black Cohosh (*Cimicifuga racemosa*), Skunk Cabbage (*Symplocarpus foetidus*), Thyme (*Thymus vulgaris*), Beebalm (*Monarda fistulosa*), Skullcap (*Scutellaria lateriflora*), and Wild Cherry (*Prunus serotina*).

- **Lymphagogue:** Due to its close proximity to the external environment, the respiratory system has strong lymphatic innervation in order to maintain defense of the host. During acute infection, swelling in the lymphatic tissue is common, especially in the neck and throat, tonsils, adenoids, and uvula. Lymphagogue remedies help to activate the lymphatic glands, disperse any stagnation, and maintain the health of the immune system and its filtering and cleansing abilities. Some lymphagogues are: Cleavers (*Galium aparine*), Calendula (*Calendula officinalis*), Red Clover (*Trifolium pratense*), Blue Flag (*Iris versicolor- low dose*!), Red Root (*Ceanothus spp.*), Wild Indigo (*Baptisia tinctoria*), and Calamus (*Acorus calamus*).

- **Immunostimulant/Antimicrobial:** These will be plants that have either directly immunostimulant properties, or those which contain antibacterial, antimicrobial, or antiviral constituents. While there is naturally a wide variety of plants which contain these actions, here we want to focus on those which may have a stronger affinity for the respiratory system. Examples are: Garlic (*Allium sativum*), Echinacea (*Echinacea angustifolia*), Thyme (*Thymus vulgaris*), Oregano (*Origanum vulgare*), Osha (*Ligusticum porteri*), Lomatium...
Advanced Clinical Herbalism: Weekend Two - Respiratory System

(Lomatium dissectum), Balsamroot (Balsamorrhiza sagittata), Usnea lichen (Usnea spp.), and Eucalyptus (Eucalyptus globulus).

- **Respiratory Tonic/Trophorestorative:** Lastly we come to our trophorestoratives. A trophorestorative, or a tonic, is something that will help to restore the proper function and structure of a tissue that has become damaged or debilitated due to chronic stress or illness. This can certainly occur in folks with chronic respiratory tract infections, those exposed to aromatic toxins, or smokers. These are remedies that help build up the overall strength of the lungs. Many are also adaptogenic and build core immunity. Some examples are: Cordyceps mushroom, Schizandra (Schisandra chinensis), Licorice (Glycyrrhiza glabra), Astragalus (Astragalus membranaceous), Codonopsis (Codonopsis tangshen), and Reishi (Ganoderma lucidum).

- **Diaphoretics:** While not a specific action for the respiratory system, diaphoretics are useful to think of alongside treatment of respiratory infections as they often are accompanied by fever. Conveniently, many of our expectorant remedies also contain diaphoretic actions, both on the stimulant and relaxant side. Examples include: Elderflower (Sambucus spp.), Lobelia (Lobelia inflata), Pleurisy root (Asclepias tuberosa), Thyme (Thymus vulgaris), and Oregano (Origanum vulgare).

**Materia Medica by Common Symptoms**

It’s important to remember that the respiratory system is the closest system to the outside world - it is coming into contact with it with every breath we take! Thus outside influences are oftentimes behind many acute respiratory afflictions, such as exposure to allergens, inhalant toxins, or simple environmental shifts. At the root of many afflictions there is an alteration in the secretions of the mucous membranes, inflammation, and lymphatic stagnation and swelling. Afflictions in this system typically start in the upper regions, and gradually move down as they get deeper into the body. Ideally, we want to prevent the illness from progressing into the deeper layers of the system (lungs, pleura). Effective treatment will typically show the symptoms rising up - IE moving from the lungs, into the throat, into the sinuses and out. If it starts in the sinuses, moves into the throat, and then into the lungs it is moving deeper into the body.

Here we can take a look at some common conditions of the upper and lower respiratory tract and some common materia medica used to treat those symptoms. We will start with the upper tract and gradually move down.

**Sinusitis/Rhinitis/Allergies:** This is essentially inflammation of the paranasal sinuses due to some form of infection or allergic reactions, often related to inhalant allergies (pollen) or dairy. These cavities are lined with mucous membranes that can over-secrete mucous or become excessively dry. Typically with infection they over-secrete which congests the narrow passageways in this area, which is also accompanied by swelling and further stagnation, ultimately trapping the infection in the local area. While typically an acute symptom, sinusitis can become chronic if there is excessive exposure to a particular allergen.
Milk proteins are a very common culprit of chronic sinus infections. This can lead to headaches, toothache, sore throat, facial pain and tenderness. Even if the milk itself is not causing an acute allergic reaction, it effectively decreases the allergic load of the individual so that when a pollen hits the respiratory system they are not able to effectively tolerate it. These people are called “atopic,” meaning they are hypersensitive- atopic individuals typically have more than one allergic thing happening such as eczema, asthma, hayfever, or other food allergens.

Considerations that are important are the oil balance of the cells (omega fatty acids- which are critical for managing the bodies natural inflammatory pathways), magnesium deficiency, and other nutrient deficiencies (vitamin C- stabilizes mast cells, flavonoids). We also want to note if the liver is congested and unable to clear histamine effectively- if it doesn’t, we get a buildup of histamine throughout the body leading to increased inflammation, mucous secretions, and bronchiole constriction. Herbs that help clear histamine (and cortisol) are St. John’s Wort (Hypericum perforatum), Rosemary (Rosmarinus officinalis), and Licorice root (Glycyrrhiza glabra). Also worth considering are whether the adrenal glands are exhausted and unable to produce sufficient amounts of cortisol to balance the excessive inflammation.

A basic approach to treating sinus infections and catarrh in the upper respiratory tract is topical application of plant through inhaling the steam of infusions and essential oil diffusions. These typically deliver antimicrobial constituents directly to the surface of the mucous membranes, as well as help to open up the passageways. An ideal strategy for treating chronic issues with sinuses and allergies is to give herbs for acute relief of symptoms while at the same time addressing the person’s underlying atopic tendencies (reducing allergic load, balancing nutrients/oils etc.)

Classic essential oils used in this regard are menthol containing plants such as Peppermint (Mentha x piperita), thymol containing plants such as Thyme (Thymus vulgaris), and Sweet Leaf aka Horsemint (Monarda fistulosa), and azulene containing plants like Chamomile (Matricaria recutita) and Yarrow (Achillea millefolium). These are all volatile oil constituents which will be present in the essential oils or in the steam of a tea. Simply make a tea and inhale it through the nose as you drink it. Other classic herbs for treatment of sinusitis are:

- **Horseradish (Armoracia rusticana):** The pungent nature of this plant goes directly up in the sinuses and helps to purge excessive mucous from the area. An old folk remedy is to make a vinegar extract of the blended fresh root and simply inhale it- though this preparation only lasts about 5 days. This remedy should definitely be avoided in cases of excess heat and dryness, but it works like a charm whenever there’s excessive moisture and damp accumulation. It has similar constituents to Garlic and Onions. Works well for hayfever and allergies as well. Prepared Horseradish from the grocery store can be used too, like what is used for sushi. Small amounts of a high alcohol tincture can be used in formulas as well, or as a simple- but it’s really pungent, so usually lower dosages work just fine!

- **Eyebright (Euphrasia officinalis):** Here is our classic decongestant remedy for allergies and hayfever as well as the sinuses. It too contains aromatic compounds which extract...
well in a tincture and would be present in the steam of an infusion. It is particular anti-inflammatory, decongestant and astringent for leaky tissues (post nasal drip, runny nose). It has a classic use for hayfever where the eyes are extremely hot, red, inflamed and itchy and the nose is constantly running. Eyebright is really unique in the way it is a pungent aromatic astringent- not something you find in too many herbs. In this way it is energetically cooling and drying, well suited damp/heat conditions in the upper respiratory system- especially those where the tissues are lax and drippy and inflamed. It can be used as a bulk herb, tincture of homeopathic which is used the same.

**Elderflower (Sambucus spp.):** The flowers of various Elder species also have a profound yet gentle action upon the upper respiratory tract. It has distinct anti-inflammatory actions and helps to drain and open up the sinuses, especially when drunk as a hot tea. In general this remedy opens up the “tubes” of the body and brings blood flow to the surface through relieving neuromuscular tension. It is also one of our great diaphoretic remedies to produce a good sweat in fever. I find it has a sort of dispersive effect upon the sinuses and upper respiratory tract and works best in this way as a hot infusion.

**Yerba Mansa (Anemopsis californica):** Here is a great stimulant, pungent, warming astringent remedy used for boggy mucusy conditions, as well as a broad spectrum antibacterial/antifungal remedy. It is a SW remedy that has become popularized as a Goldenseal replacement- though it functions rather differently than Goldenseal, primarily in that it is warming and pungent, whereas Goldenseal is cooling and bitter. Though similarly, it is a mucous membrane tonic/astringent. It has a broad application not just in the respiratory tract, but for the mucous membranes in general (digestive system, urinary tract). Matthew Wood notes that it is specific for when the head feels full, heavy, congested, and stuffy sensation in the head and throat.

**Chamomile (Matricaria recutita):** The azulene and chamazulene constituents in the essential oil of Chamomile have proven to be excellent for reducing the inflammation in the sinuses and bronchioles, relaxing tension in the respiratory airways, and having an anti-allergenic effect. A strong tea is an excellent delivery mechanism, as well as sniffing the steam. The bitter action of Chamomile also has an effect on the mucous membranes and the nervine property is also nice for the irritation that often accompanies allergies or a runny nose! It’s worth mentioning here though that some people do have an allergic response to plants in the Asteraceae so it might not be a good idea to check in with someone first to see if they are okay with Chamomile.

**Goldenrod (Solidago canadensis):** Goldenrod is an interesting remedy here as it is primarily used as a diuretic, but it also has a good effect in the treatment of allergies, hayfever and nasal congestion. It is primarily drying so be aware of that. It contain quercetin and rutin, 2 bioflavonoids which are specific for inflammation in the upper respiratory tract and treatment of allergic reactions. It is bitter as well as aromatic and pungent, along with some astringent properties, making it quite beneficial here for the upper respiratory tract: drying out excessive secretions, draining dampness, and diaphoring stagnation, as well as tonifying the mucous membrane. It does these things...
Advanced Clinical Herbalism: Weekend Two - Respiratory System

also in the digestive and urinary systems. While the roots, leaves and flowers are all used as a medicine, the flowers are the best part to use for the respiratory system.

- **Nettle (Urtica dioica):** This is our other diuretic remedy used often in the treatment of allergies and hayfever. Again it has primarily a drying effect and works due to its biochemical activity upon histamine receptors. Thus if the condition is not a histamine reaction it often won’t work that well. It works really well for some, and not so well for others. What has been shown to work the best is the freeze dried extract of the leaf, taken in relatively high doses, consistently over time. It has a distinct cooling, anti-inflammatory effect, as well as draining to excessive moisture with a slightly astringent effect. Like Goldenrod, Nettle also contains quercetin, a common flavonoid used in the supplement industry for the treatment of allergies.

- **Ephedra (Ephedra sinica):** This is a classic remedy used for allergies and hayfever and is very astringent and drying, yet dilates the bronchioles and reduces spasm. It is a premier remedy for asthma and can save a life for sure. It’s an excellent decongestant and combines quite well with Eyebright and the other herbs mentioned above.

The final 3 herbs on this list are interestingly enough primarily diuretic herbs. They are thus drying constitutionally and ideally used in wet drippy conditions with relaxed tissues.

Quick sinusitis spray formula: 10-30 drops of Goldenseal (Hydrastis canadensis), and/or Yerba Mansa (Anemopsis californica) mixed in a teaspoon of glycerine, and enough water to fill a 2 oz bottle. Apply this as a spray to the nasal passageways and throat every 2-4 hours. Do not add more glycerine or more herbs (30 drops total)! Follow this recipe closely otherwise it will burn. This comes from the Eclectic physician Finley Ellingwood.

**Laryngitis:** This is acute inflammation of the larynx. It is commonly associated with a sore throat, the common cold, or overuse of the voice. There is typically an accompanying viral infection of some kind, swelling, pain, difficulty speaking, painful swallowing, dryness, and may be accompanied by a cough. Treatment of a sore throat includes using demulcent remedies to soothe any inflammation and to moisturize the dry mucous membranes, astringents to reduce any swelling of the mucous membranes and reduce pain, anti-inflammatory remedies, bitters to strengthen and tonify the mucosa, and anti-microbial/viral remedies to kill any pathogens.

While internal use of the medicine is best, we can also use topical treatments as well, such as gargles. Simple home remedies like crushed Garlic and Onion syrups are excellent for a sore throat, as is lemon water, straight up vinegar and salt water gargles. These are all highly effective and simple home treatments for laryngitis and a sore throat. Some other herbs classically used for a sore throat are:

- **Slippery Elm (Ulmus rubra) and Marshmallow (Althea officinalis):** These 2 demulcents are very soothing to hot, dry and inflamed tissues in the throat and provide palliation for the pain associated with a sore throat. Mixing powder in water into a thick gruel is an ideal
Advanced Clinical Herbalism: Weekend Two - Respiratory System

method of administration. This is well administered with applesauce and a little bit of Cinnamon as well.

- **Yarrow** (*Achillea millefolium*): Yarrow hits a lot of actions that are excellent for a sore throat: anti-inflammatory, bitter tonic, anti-microbial, and astringent. Gargling the hot tea is an excellent delivery mode and it can also be swallowed if there is an accompanying fever.

- **Osha** (*Ligusticum porteri*): This classic North American remedy is incredible in the treatment of sore throats, especially chewing the root as it has a slightly numbing and anesthetic effect. But most people won’t chew it because of its strong taste, so a tincture will suffice. It is also expectorant and anti-viral, with some bitter tonic actions as well. It is quite warming and irritating, so if there is a hot/dry cough it is best left alone, or combined with **Licorice** (*Glycyrrhiza glabra*) in order to balance out some of its harshness.

- **Licorice** (*Glycyrrhiza glabra*): Tea made from Licorice is particularly soothing to the throat and mucosa due to its demulcent action. As mentioned above it combines very nicely with Osha for treating viral and bacterial throat infections and inflammation.

- **Sage** (*Salvia officinalis*): Standard garden Sage is a classic European remedy for sore throats, as it combines a nice astringent action with anti-inflammatory and anesthetic actions. A strong Sage tea with lemon and honey as a gargle is incredible for sore throats and laryngitis. The essential oils also contain antimicrobial actions making it a nice well rounded remedy for use here. If there is one remedy to remember for sore throat, in my opinion it would be Sage.

- **Calamus** (*Acorus calamus*): The roots of Calamus look strikingly similar to the throat, a signature for its use in restoring the voice and treating upper respiratory conditions. I find it somewhat similar to Osha in this regard, as it has a strong bitter tonic action and pungent aromatic oils which have a certain numbing effect on the throat. The aromatic oils likely have some antimicrobial properties as well. It is typically best for cold and damp conditions.

- **Other remedies used here are Horehound** (*Marrubium vulgare*), **Oak bark** (*Quercus alba*), **Raspberry leaf** (*Rubus idaeus*), **Elderflower** (*Sambucus spp.*), **Myrrh gum** (*Commiphora molmol*), and **Goldenseal** (*Hydrastis canadensis*).

**Tonsillitis**: Whereas laryngitis and pharyngitis are essentially inflammation of various areas of the throat, tonsillitis is a slightly different in that it is associated with the palatine tonsils and is typically always due to viral or streptococcal infection (IE strep throat). The adenoids and lymph glands of the neck are also typically swollen and inflamed and the overall condition is usually accompanied by fever, chills, headache, weakness, and a high amount of pain in the throat, especially upon swallowing. Prolonged strep infections can be extremely dangerous, leading to heart damage (rheumatic fever) or kidney damage (streptococcal nephritis). Thus do not treat the sore throat lightly- if one lasts for more than 1 week it’s important to go see a
It is impossible to tell the difference between viral and strep tonsillitis without doing lab tests.

Treatment of the tonsillitis can be done with the herbs mentioned above with laryngitis, with the addition of a few other remedies, specifically those which will strengthen the immune system and keep the lymphatic system functioning properly, as lymphatic swelling is very common. This is important as abscesses can form if lymphatic stagnation is prolonged.

- **Cleavers (Galium aparine):** This is the classic remedy used in the UK as a specific for tonsillitis, as it helps to clear the lymphatic swelling, and cool and soothe the inflammation. While it can be used as a simple, it is likely best combined with other remedies for broader actions. This is a great remedy here because it is a cooling lymphatic remedy, whereas our next herb Calendula is primarily warming, and another Red Root is more on the neutral side. There is typically a lot of heat and irritation with tonsillitis, so the cooling properties of Cleavers are very beneficial. It helps to move along stagnant lymph and drain that dampness through the kidneys for elimination.

- **Calendula (Calendula officinalis):** Here is another great anti-inflammatory remedy with an affinity for the lymphatic tissues. Calendula is also astringent and can help to dry up excessive moisture, which is a life saver here, as for some reason there tends to be an excessive amount of salivation and thus the need to swallow more frequently, which is typically very painful. This remedy also has some antibacterial properties making it quite useful here. It’s ability to move the lymph is of great benefit in the treatment of tonsillitis.

- **Figwort (Scrophularia nodosa):** The latin name of this remedy indicates it’s benefit in the treatment of scrofula, which is essentially lymphatic swelling in the throat. Matthew Wood summarizes “the great remedy for scrofula (swollen glands, purulent, discharging glands, discharging cracks behind the ears, sanies, or yellow discharge from glands in the neck)” Thus we can see its specific uses for the throat region. This is a very specific medicine here that should never be overlooked.

- **Echinacea (Echinacea spp.):** This remedy is excellent as it also has a slightly topical anesthetic/numbing effect, as well as its excellent immunostimulant and lymphogogue actions. We tend to think of Echinacea as an immunostimulant and leave it at that, but it’s important to remember that classically it is an alterative remedy with a strong affinity for the lymph and blood. The only thing I would exercise caution with in the use of Echinacea here is that it is a sialagogue, meaning that it increases salivation- something one with tonsillitis will abhor because every swallow feels like knives in the throat. So if Echinacea is to be administered I recommend giving it with some astringent remedies like Red Root or Calendula as well.

- **Osha (Ligusticum porteri):** The antimicrobial and antiviral effects of Osha are excellent in treating various causes of tonsillitis, and the resins have a coating, soothing, and slightly numbing effect on the sensitive mucous membranes. It also has a warming, stimulating expectorant action on the lungs which can be of benefit if the infection is beginning to move down into the lungs.

© The School of Evolutionary Herbalism. All Rights Reserved.
Advanced Clinical Herbalism: Weekend Two - Respiratory System

- **Fomentation/Cold Compress:** This is a hydrotherapy technique that involves wrapping the throat with a cold cloth and then wrapping that with a warm dry cloth. Ideally the cold/damp cloth should not touch the back of the neck, but the dry scarf can wrap all the way around. After wrapping the cloths around, lie down for 20-40 minutes. Rather than simply using cold water, one can use an herbal tea instead. Dr. Christopher recommends doing 3 parts Mullein leaf (*Verbascum thapsus*) to 1 part Lobelia (*Lobelia inflata*), making a strong infusion of the herbs and dipping a cloth in that to be wrapped around the neck. It’s worth noting that Mullein is in the Scrophularaceae, which is the same family as Figwort, mentioned above and has an influence upon the lymphatics.

**Asthma:** According the Merck Manual, asthma is a “reversible obstructive lung disorder characterized by increased responsiveness of the airways.” It is considered a chronic disorder, characterized by constriction of the airways, respiratory inflammation, tightness in the chest, difficulty breathing, wheezing and coughing. Most asthmatic conditions arise in early childhood and improve with age, though adult onset asthma does occur and actually tends to worsen with age.

An important consideration in regards to asthma is that the root cause is often similar to that of hayfever and other forms of allergies (inhalant or otherwise). Specifically with asthma we see a constriction of the bronchiole passageways and thus difficulty breathing, or at its worse suffocation. This can be quite severe and can lead to death - so don’t take asthma lightly! This common root cause is typically some form of food allergen lowering the overall allergic load of the individual, making them more sensitive to inhalant allergies such as pollen or animal dander.

Common medications for asthma are what are called “adrenergic inhalers” which directly dilate the bronchioles and respiratory tract, reducing constriction and tension in the system. These are essentially steroids and can create a strong dependency upon them by reducing the bodies natural ability to produce its own endogenous steroids (IE cortisol). It’s important to understand that these drugs can have a very profound impact upon our bodies endocrine system and adrenal function. **Do not take away someone’s inhaler!** You can integrate herbs into their lives to help them to wean them off the drugs but never tell someone to throw away the inhaler! These inhalers do not simply have a local effect on the respiratory system but a systemic effect on the whole body as steroids do. This ultimately replaces someone’s natural cortisol and stress response, and this can ultimately lead to significant bone loss, tissue wasting, adrenal atrophy, as well as cancer through constant immunosuppression.

Magnesium is an important nutrient to consider in the treatment of asthma, as it is a primary co-factor in the bodies inflammatory processes, as well as a primary player in the smooth muscle’s capacity to relax. Magnesium relaxes muscles, calcium contracts them.

An ideal treatment for asthma is to give the client an acute formula in case of an asthma attack, and a longer term formula to help strengthen the respiratory system, tonify the tissues, balance the mucous membranes, and modulate inflammation. The primary approach for an acute formula is focused on respiratory antispasmodics and relaxants. It is important here to also address any potential underlying atopic conditions - reducing potential food allergens.
(primarily gluten/dairy), increasing omega 3 fatty acids, supplementing magnesium, vitamin C, and bioflavonoids (colorful foods). While asthma is pretty much across the board a tension tissue state, it’s also important to consider the relative temperature and moisture of the respiratory tract to determine other supportive remedies.

- **Ephedra (Ephedra sinica):** This is one of our primary herbs for the acute treatment of asthma and it can save a life. This is a unique plant in that it has an adrenergic effect, meaning that it mimics the pharmacology of steroid drugs. In this way, it has a profoundly relaxant effect upon the smooth muscles of the respiratory tract, in the same way our endogenous epinephrine does when we get stressed out. This is because when you get stressed your body requires more oxygen- so you can run away or fight, thus it dilates the bronchial passageways. Ephedra is also an excellent expectorant, astringent, and decongestant for excessive mucous secretions in the sinuses, making it a useful remedy in hayfever and allergies.

- **Lobelia (Lobelia inflata):** Here is our primary anti-spasmodic relaxant remedy for the respiratory system. It is chiefly acrid and slightly bitter, with expectorant, relaxant and emetic properties (classically called “pukeweed”). It is specific for tension, tightness and bronchiole constriction, as well as dry respiratory conditions. It is best used in relatively low doses, 3-10 drops is typically sufficient. Some people are a bit more sensitive to this remedy than others- I’ve seen someone take 1 drop and was purging for hours! It pairs extremely well with Ephedra as an acute asthma formula which should be in everyones medical kit- it can literally save someone’s life. This is probably one of our most versatile remedies in the western materia medica, for it is in essence the best example of a pure relaxant remedy. We will discuss Lobelia in many other organ systems to come.

- **Skunk Cabbage (Symplocarpus foetidus):** This is another one of our great acrid and pungent remedies with a specific affinity for the respiratory system. It likes to grow in wet, bug infested bogs where the water has become stagnant- a signature for the tissue state of the lungs it is specific for- the leaves are broad a shaped somewhat like the lungs. Thus damp coughs with spasm are it’s specific indications. Large doses can be emetic, like Lobelia, so lower doses are effective. William LeSassier says that the difference between the two are that Lobelia is relaxing and opening to the lungs, whereas Skunk Cabbage is simply relaxant. It is one of our specific remedies for asthma.

- **Hawthorn berry (Crataegus monogyna):** This is a use of Hawthorn pioneered by Debra Francis N.D. from Portland, Oregon, and has been proven by various other herbalists in North America. Hawthorn has a sweet and sour taste, indicating tonifying, strengthening, and cooling actions, specifically around the heart. Naturally, the heart and the lungs are intimately connected, so perhaps by relaxing the heart, lowering blood pressure, and strengthening it’s functioning there is an impact upon the lungs. I am not familiar with the mechanism of action here, but it has been proven clinically by many herbalists so it’s worth mentioning here. This would be an ideal remedy to include in a chronic formula. It is one of the greatest specifics for the heat/excitation tissue state and should always be considered if the asthmatic condition has a lot of underlying heat. It combines well with Wild Cherry in this way, which has a prominent respiratory affinity.
• **Thyme** (*Thymus vulgaris)*: This common mint can be used as an effective remedy to help clear the lungs of congested, heavy, damp mucous and reducing spasm and constriction of the bronchioles. The presence of thymol in the essential oils has a profound anti-inflammatory, anti-spasmodic effect, as well as reducing swelling. Thus it can be used as a topical application through inhaling the steam of an infusion or an essential oil. Another mint family plant useful here would be Beebalm (*Monarda fistulosa)*.

**Bronchitis/Cough**: We can think of bronchitis in terms of whether it is acute or chronic, them being treated slightly differently. Like all “itises,” bronchitis is inflammation of bronchial tract. Acute bronchitis is typically accompanied by a viral infection such as the common cold or influenza, which does have the potential to progress down into the lower respiratory system into a lung infection. Typical bronchitis lasts about a week, and is accompanied by symptoms such as sore throat, cough, chest pain, general malaise, and sometimes fever. Depending on the constitution of the person and the environment, bronchitis coughs can be either dry or wet, and oftentimes will change as the symptoms progress—typically beginning with a dry cough and progressing to a more damp cough as the mucous membranes secrete more fluids.

While typically associated with a cold, bronchitis symptoms can arise due to other causative factors, such as smoking, acid reflux, asthma, and/or pneumonia. Even after the primary illness has left (no more fever, malaise, etc.) there can still be residual non-infectious bronchitis with a persistent low grade cough. In this case we want to use herbs to help restore the mucosa of the bronchial tree and tonics to strengthen the respiratory tissues.

During acute bronchitis, it’s essential to maintain the appropriate flow of mucous in the lungs. Decongestants which can potentially dry up excessive mucous secretions and cough suppressants are **not recommended**, for these mucous secretions contain antibodies which help to defend the body from the invading pathogen and the coughing response aids in clearing mucous buildup so a fresh layer can be secreted. Suppressing the mucous is the last thing we want to do, as it is the bodies intelligent vital response to infection— if we do suppress it we prolong the infection and ultimately drive it deeper into the body.

Drinking copious amounts of water, bed rest, and staying indoors are foundations of treatment, as well as facilitating the coughing up of excessive mucous and getting it out of the body. Primary herbal treatment is the use of expectorants to facilitate the cough (either relaxant or stimulant depending on the nature of the cough), demulcents to soothe any inflammation and increase mucous production with dry membranes, anti-spasmodics to help relax bronchial spasm, and antimicrobial/viral herbs to help with removal of pathogenic substances. Our goal is to keep the mucous secretions thin and freely flowing, preventing the membranes from overly drying out or from getting overlying stagnant and damp.

It’s important to note that during acute infections with bronchitis, that the symptoms will oftentimes progress and change very quickly. Thus if you are seeing a client for a condition like this, it is helpful to have a brief check in with them about 2 days after the initial visit so you can switch the formula around based on the current state of the tissues.
Advanced Clinical Herbalism: Weekend Two - Respiratory System

We want to study our herbs based on their specific humoral or energetic effects:

**Stimulant Expectorants**
These are primarily used when the mucous membranes are hot and moist, or cold and moist. We do not want to use them remedies when there is dryness, this is a key point! But you’ll note that many of these remedies are distinctly warming plants, so they may be irritating if there is a lot of heat in the system.

- Osha (*Ligusticum porteri*)
- Thyme (*Thymus vulgaris*)
- Oregano (*Origanum vulgare*)
- Elecampane (*Inula helenium*)
- Gumweed (*Grindelia spp.*)
- Horehound (*Marrubium vulgare*)
- Poplar buds/Balm of Gilead (*Populus spp.*)
- Garlic (*Allium sativa*)
- Balsam root (*Balsamorrhiza sagittata*)
- Yerba Santa (*Eriodictyon californicum*)

**Relaxant Expectorants**
These are primarily used for hot and dry respiratory conditions, especially when there is excess tension, as well as cold and dry conditions. Specific for irritability in the respiratory tract.

- Pleurisy root (*Asclepias tuberosa*)
- Lobelia (*Lobelia inflata*)
- Mullein (*Verbascum thapsus*)
- Coltfoot (*Tussilago farfara*)
- Wild Cherry (*Prunus serotina*)
- Hyssop (*Hyssopus officinalis*)
- Skunk Cabbage (*Symplocarpus foetidus*)

**Demulcents**
These are chiefly used for any dryness in the respiratory system, whether the temperature is cold or hot.

- Marshmallow (*Althea officinalis*)
- Slippery Elm (*Ulmus rubra*)
- Comfrey (*Symphytum officinale*)
- Licorice (*Glycyrrhiza glabra*)
- Plantain (*Plantago major*)
- Coltfoot (*Tussilago farfara*)
- Mullein (*Verbascum thapsus*)
- Fenugreek (*Trigonella foenum-graecum*)

© The School of Evolutionary Herbalism. All Rights Reserved.
Trophorestoratives and Recovery

These herbs are useful in restoring the respiratory tract post-bronchitis to get the mucous membranes back on track.

Mullein (*Verbascum thapsus*)
Horehound (*Marrubium vulgare*)
Licorice (*Glycyrrhiza glabra*) only if dry
Goldenseal (*Hydrastis canadensis*) only if wet and boggy
Codonopsis (*Codonopsis tangshen*)
Schizandra (*Schisandra chinensis*)
Astragalus (*Astragalus membranaceus*)
Reishi (*Ganoderma lucidum*)

Other Cough Considerations

- Medicated Honeys and Syrups
- Vinegar and Oxymels
- Garlic, Onions, Lemons, Limes

**Emphysema:** This chronic disease is typically associated with smokers but can also develop from chronic bronchitis. It is characterized by destruction of the walls of the alveoli, affecting the respiratory capacity for gaseous exchange. This damage is caused by constant coughing from the body's attempt to rid itself of excessive mucous or bacteria. Damage to the cilia, or small hairs lining the tract makes it difficult for the body to remove foreign materials.

Here we want to use some of our basic respiratory remedies: expectorants, relaxants, demulcents, and other indicated remedies based on the specific tissue state of the lungs. Our respiratory trophorestoratives will be specifically indicated here as well, such as Cordyceps, Codonopsis, Schizandra, Reishi, and Astragalus.

Other Contributing Factors

- Smoking
- Pollution
- Acid reflux
- Allergic load

Nutritional Factors

- Magnesium deficiency
- Vitamin C deficiency
- Essential Fatty Acid imbalances (Omega 3 too low compared to Omega 6)

Lifestyle Factors

- Exercise
- Conscious breathing
- Stress management
- Weaning off drugs (anti-histamines, steroid inhalers etc.)
Advanced Clinical Herbalism: Weekend Two - Respiratory System

Materia Medica

By Tissue State

**Heat Excitation (all cooling)**
- Wild Cherry bark (*Prunus serotina*)
- Hawthorn berry (*Crataegus spp.*)
- Yarrow (*Achillea millefolium*)
- Elderberry (*Sambucus nigra, cerulea, or canadensis*)
- Rose (*Rosa spp.*)
- Licorice (*Glycyrrhiza glabra*)

**Dry Atrophy (all moistening)**
- Marshmallow (*Althea officinalis*)
- Slippery Elm (*Ulmus rubra*) though any Elm will due
- Comfrey (*Symphytum officinale*)
- Mullein (*Verbascum thapsus*)
- Coltsfoot (*Tussilago farfara*)
- Plantain (*Plantago major*)
- Fenugreek (*Trigonella foenum-graecum*)
- Pleurisy root (*Asclepias tuberosa*)
- Red Clover (*Trifolium pratense*)
- Astragalus (*Astragalus membranaceus*)
- Licorice (*Glycyrrhiza glabra*)

**Wind/Tension (all relaxant)**
- Lobelia (*Lobelia inflata*)
- Black Cohosh (*Cimicifuga racemosa*)
- Skullcap (*Scutellaria lateriflora*)
- Skunk Cabbage (*Symplocarpus foetidus*)
- Wild Lettuce (*Lactuca virosa*)
- Valerian (*Valeriana officinalis*)
- Mullein (*Verbascum thapsus*)
- Pleurisy root (*Asclepias tuberosa*)

**Damp/Relaxation (all astringent/drying)**
- Oak (*Quercus alba*)
- Raspberry (*Rubus idaeus*)
- Sage (*Salvia officinalis*)
- Bayberry (*Myrica cerifera*)
- Goldenseal (*Hydrastis canadensis*)
- Ephedra (*Ephedra sinica*)
- Red Root (*Ceanothus spp.*)
- Eyebright (*Euphrasia officinalis*)
Yerba Mansa (*Anemopsis californica*)

**Damp/Stagnation (all warming/drying)**
- Osha (*Ligusticum porteri*)
- Lomatium (*Lomatium dissectum*)
- Yerba Santa (*Eriodictyon californicum*)
- Elecampane (*Inula helenium*)
- Thyme (*Thymus vulgaris*)
- Oregano (*Origanum vulgare*)
- Horehound (*Marrubium vulgare*)
- Gumweed (*Grindelia camporum*)
- Balm of Gilead aka Poplar Buds (*Populus trichocarpa*)
- Propolis

**Cold/Depression (all warming/drying)**
- Elecampane (*Inula helenium*)
- Garlic (*Allium sativa*)
- Onion (*Allium cepa*)
- Mustard (*Brassica nigra or alba*)
- Hyssop (*Hyssopus officinalis*)
- Thyme (*Thymus vulgaris*)
- Oregano (*Origanum vulgare*)
- Yerba Santa (*Eriodictyon californicum*)
- Propolis
- Various Conifers (Pines, Spruces, Hemlocks, etc)

**By Action**

**Stimulant Expectorant** (for damp/stagnation and cold/depression)
- Elecampane (*Inula helenium*)
- Garlic (*Allium sativa*)
- Mustard (*Brassica nigra or alba*)
- Hyssop (*Hyssopus officinalis*)
- Thyme (*Thymus vulgaris*)
- Oregano (*Origanum vulgare*)
- Yerba Santa (*Eriodictyon californicum*)
- Osha (*Ligusticum porteri*)
- Gumweed (*Grindelia spp.*)
- Horehound (*Marrubium vulgare*)
- Poplar buds/Balm of Gilead (*Populus spp.*)
- Balsam root (*Balsamorhiza sagittata*)

**Relaxant Expectorant** (for wind/tension, heat/excitation, dry/atrophy)
- Lobelia (*Lobelia inflata*)
- Black Cohosh (*Cimicifuga racemosa*)
- Skullcap (*Scutellaria lateriflora*)
Advanced Clinical Herbalism: Weekend Two - Respiratory System

Skunk Cabbage (Symplocarpus foetidus)
Wild Lettuce (Lactuca virosa)
Valerian (Valeriana officinalis)
Mullein (Verbascum thapsus)
Pleurisy root (Asclepias tuberosa)
Coltfoot (Tussilago farfara)
Wild Cherry (Prunus serotina)
Hyssop (Hyssopus officinalis)

**Decongestant** (for damp/stagnation, damp/relaxation)
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)

**Demulcent** (for dry/atrophy, heat/excitation)
Marshmallow (Althaea officinalis)
Slippery Elm (Ulmus rubra)
Comfrey (Symphytum officinale)
Licorice (Glycyrrhiza glabra)
Plantain (Plantago major)
Coltsfoot (Tussilago farfara)
Mullein (Verbascum thapsus)
Fenugreek (Trigonella foenum-graecum)
Red Clover (Trifolium pratense)

**Astringent** (for damp/relaxation)
Oak bark (Quercus alba)
Sage leaf (Salvia officinalis)
Eyebright (Euphrasia officinalis)
Goldenrod (Solidago canadensis)
Nettle leaf (Urtica dioica)
Goldenseal (Hydrastis canadensis)
Raspberry (Rubus idaeus)
Bayberry (Myrica cerifera)
Goldenseal (Hydrastis canadensis)
Ephedra (Ephedra sinica)
Red Root (Ceanothus spp.)
Yerba Mansa (Anemopsis californica)

© The School of Evolutionary Herbalism. All Rights Reserved.
**Trophorestorative/Tonics** (for dry/atrophy)
- Codonopsis (*Codonopsis tangshen*)
- Schizandra (*Schisandra chinensis*)
- Astragalus (*Astragalus membranaceous*)
- Reishi (*Ganoderma lucidum*)
- Cordyceps (*Cordyceps sinensis*)
- Elecampane (*Inula helenium*) only if cold
- Mullein (*Verbascum thapsus*)
- Horehound (*Marrubium vulgare*)
- Licorice (*Glycyrrhiza glabra*) only if dry
- Goldenseal (*Hydrastis canadensis*) only if wet and boggy

**Sample Formulations**

**Wind/Tension Cough Compound** (AKA Asthma formula)
- Lobelia (*Lobelia inflata*) 40%
- Ephedra (*Ephedra sinica*) 40%
- Skunk Cabbage (*Symplocarpus foetidus*) 20%

**Cold/Damp Cough**
- Osha (*Ligusticum porteri*) 33%
- Lomatium (*Lomatium dissectum*) 33%
- Elecampane (*Inula helenium*) 33%

**Hot/Dry Cough**
- Mullein (*Verbascum thapsus*) 40%
- Coltsfoot (*Tussilago farfara*) 40%
- Licorice (*Glycyrrhiza glabra*) 20%

**Balanced Cough Pair**
- Osha (*Ligusticum porteri*) 50%
- Licorice (*Glycyrrhiza glabra*) 50%

**Demulcent Powder**
- Marshmallow (*Althea officinalis*) 40%
- Slippery Elm (*Ulmus rubra*) 40%
- Licorice (*Glycyrrhiza glabra*) 20%

**Respiratory Immunostimulant Formula**
- Echinacea (*Echinacea spp.*) 35%
- Elderberry (*Sambucus spp.*) 35%
- Balsamroot (*Balsamorrhiza sagittata*) 10%
- Usnea lichen (*Usnea spp.*) 10%
- Licorice (*Glycyrrhiza glabra*) 10%

© The School of Evolutionary Herbalism. All Rights Reserved.
Advanced Clinical Herbalism: Weekend Two - Respiratory System

Cough Compound 1

Osha (*Ligusticum grayi*) 30%
Lomatium (*Lomatium dissectum*) 30%
Mullein (*Verbascum thapsus*) 10%
Red Clover (*Trifolium pratense*) 10%
Coltsfoot (*Tussilago farfara*) 10%
Lobelia (*Lobelia inflata*) 5%
Licorice (*Glycyrrhiza glabra*) 5%

This formula has a predominance of stimulant expectorants, represented here by the lead pair of *Ligusticum* and *Lomatium*. It is supported by a more relaxant, demulcent triplet of *Verbascum*, *Trillium* and *Tussilago*, which is also a nice lymphatic part of the formula. It is supported by a stronger demulcent action with *Glycyrrhiza* and a stronger relaxant action of *Lobelia*.

Cough Compound II

Mullein (*Verbascum thapsus*) 20%
Red Clover (*Trifolium pratense*) 20%
Coltsfoot (*Tussilago farfara*) 20%
Osha (*Ligusticum grayi*) 15%
Lomatium (*Lomatium dissectum*) 15%
Lobelia (*Lobelia inflata*) 5%
Licorice (*Glycyrrhiza glabra*) 5%

You’ll note that this is essentially the same herbs used in the formula above, though it’s rearranged a bit. This has a stronger relaxant expectorant portion, moving the *Lomatium* and *Ligusticum* to be supportive herbs at 30% of the formula, and the relaxant portion being the lead triplet of *Trifolium*, *Verbascum*, and *Tussilago*. Thus the first formula is best for a wet cough, and this one is going to be better for a dry cough.

This illustrates the principle of flexible formulas, where you can have a formula setup to be rearranged and adjusted to suit the specific nature of the person you are working with.

Throat Infection Formula

Osha (*Ligusticum porteri*) 20%
Echinacea (*Echinacea spp.* 20%
Yarrow (*Achillea millefolium*) 20%
Figwort (*Scrophularia nodosa*) 10%
Cleavers (*Galium aparine*) 10%
Calendula (*Calendula officinalis*) 10%
Goldenseal (*Hydrastis canadensis*) 5%

This is formula combines the stimulant expectorant action of *Ligusticum*, with the immunostimulant properties of *Echinacea* and the overall antimicrobial, anti-inflammatory, actions of *Yarrow* as the lead triplet of the formula. This is supported by a dynamic
lymphagogue triplet led by *Scrophularia* and supported by *Galium* and *Calendula*. Goldenseal is used as a synergist here to bring in its tonic-astringent property for the mucous membranes.

**Throat Gargle**
Sage (*Salvia officinalis*)
Chamomile (*Matricaria recutita*)
Lemon
Honey
Salt

Make a strong tea of equal parts of the herbs, squeeze a lemon wedge, a tsp of honey and a pinch of salt. This is a nice soothing astringent and anti-inflammatory formula that most people will find in their kitchen cabinet.

**Hay Fever Formula**
Eyebright (*Euphrasia officinalis*) 40%
Goldenrod (*Solidago canadensis*) 20%
Nettle (*Urtica dioica*) 20%
Ephedra (*Ephedra sinica*) 10%
Goldenseal (*Hydrastis canadensis*) 10%

This is quite an astringent formula and will be certainly drying for anyone that takes it, thus making it indicated for relaxed tissues with copious free secretions of the nose, sinuses, and eyes.

**Sinus Congestion Tea**
Peppermint (*Mentha piperita*)
Sweet leaf (*Monarda fistulosa*)
Thyme (*Thymus vulgaris*)
Chamomile (*Matricaria recutita*)

Combine in equal parts. Infuse with a lid on for 15 minutes and inhale the steam of the tea while drinking it to get the topical action of the essential oils in the sinuses. 2-3 tbsp of formula per 8 oz cup is a good place to start.

**Respiratory Tonic Formula**
Cordyceps (*Cordyceps sinensis*) 25%
Reishi (*Ganoderma lucidum*) 25%
Schizandra (*Schisandra chinensis*) 20%
Elecampane (*Inula helenium*) 10%
Astragalus (*Astragalus membranaceus*) 10%
Licorice (*Glycyrrhiza glabra*) 5%
Goldenseal (*Hydrastis canadensis*) 5%

This is a really neat formula, as it combines some of the best lung tonic herbs from Chinese Medicine (*Cordyceps, Ganoderma, Schizandra, and Astragalus*) with some of our better tonics in
Advanced Clinical Herbalism: Weekend Two- Respiratory System

the west. The *Inula* helps to warm the formula up a bit, and the *Glycyrrhiza* and *Astragalus* helps to moisten it, and the *Hydrastis* brings a good tonic/astringent property, making this a super versatile and well rounded formula. This would be best to give to someone that has constitutionally weak lungs, gets frequent infections, and needs more strength in their respiratory system. **Do not give it to someone who is acutely ill,** this is only to be used when someone is healthy to strengthen up their respiratory system.

**Lung Infection Formula**

- Echinacea compound (*Echinacea angustifolia and purpurea*) 25%
- Usnea (*Usnea spp.*) 25%
- Lomatium (*Lomatium dissectum*) 15%
- Pleurisy root (*Asclepias tuberosa*) 15%
- Licorice (*Glycyrrhiza glabra*) 10%
- Bloodroot (*Sanguinaria canadensis*) 8%
- Cayenne (*Capsicum annum*) 2%

This formula comes from Sharol Tilgner.

**Respiratory Tea Formula**

- **Decoct these herbs:**
  - Marshmallow (*Althea officinalis*) 30%
  - Licorice (*Glycyrrhiza glabra*) 20%
  - Echinacea (*Echinacea angustifolia*) 10%
  - Echinacea (*Echinacea purpurea*) 10%

- **Infuse these herbs:**
  - Osha (*Ligusticum porteri*) 10%
  - Hyssop (*Hyssop officinalis*) 10%
  - Elder flower (*Sambucus spp.*) 7%
  - Ginger (*Zingiber officinale*) 3%

This formula combines herbs which require decoction and lighter plants that require infusion, note that some clients may not be willing to do this much work, especially if they don't have someone else to make it for them if they are super sick. Note the combination of demulcents with Marshmallow and Licorice, and more stimulant expectorants with Osha and Hyssop, as well as some diaphoretics with Elderflower and Ginger. This is also from Sharol Tilger.