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News you may be interested in:

>>>Delta Institute short-sleeve shirts are now available for purchase on-line. These organic cotton shirts were printed with eco-friendly inks. Visit the store to see the shirts.

>>>Sweet Peas Podcast recently interviewed Arthur Haines on the topic of human domestication. This two-part interview discusses changes in hominids that have occurred over the last few million years and where our species is going concerning health, sovereignty, nature connection, and much-needed changes in our current direction. To listen, visit the home page—www.arthurhaines.com—and find the heading "Listen" near the center of the page.

Preventing and Treating Staph Infections

Part Two

In the first part of this newsletter, we examined aspects of a nutrient-dense diet that would help armor oneself against infection and sickness (if you missed that edition of the newsletter, it can be viewed in the archives). The information presented in Part One is critical and really gets to the root cause of why many people are frequently ill. Food is a fundamental way in which we interact with our environment. When we consume food that is damaging to local ecosystems (e.g., GMO crops sprayed with herbicides, animals living in crowded conditions being fed entirely or almost entirely a grain diet), it comes back to us in the form of a poorly functioning immune system. Think of this in whichever manner your belief system allows: healthy animals living in free-range conditions and eating biologically appropriate foods provide greater nutrition (said another way: animals that are showed respect by their human caretakers give back health and longevity). It doesn't matter whether it's plants, fungi, or animals, the outcome is the same.

Sickness is a normal part of being human, no matter who you are and what your diet is. The difference is the frequency and severity of illness. And many factors can contribute to suppressing an otherwise healthy immune system. These include stress, lack of sleep, emotional distress, and exposure to environmental toxins. Once you have succumbed to a staph infection

(of whatever kind), the goal becomes to treat it in a timely, effective, and safe manner. Though prescription antibiotics can fulfill the first two criteria, they fail the third criterion. Here are six important things for you to consider regarding prescription antibiotics:

1. They contribute to cancer. A large study was performed that examined the risk of contracting cancer in people who take prescription antibiotics. The results showed the more prescriptions you experienced, the higher your chance of cancer was.

2. They contribute to allergies. Most prescription antibiotics contain synthetic colors and other additives that can trigger allergic responses in sensitive individuals and contribute to building sensitivity in those who are not currently sensitive.

3. They suppress the immune system. Prescription antibiotics work through various mechanisms to kill pathogenic bacteria. Some antibiotics alter enzymatic function in pathogenic bacteria to cause their death. Unfortunately, they also produce the same results in probiotic bacteria. This leads to nutrient deficiency and alteration of the gastrointestinal flora (see Numbers 5 and 6). Without nutrition, the immune system falters. Simply consider this fact: those who frequently use prescription antibiotics have more repeat infections than those who do not.

4. They contribute to Chronic Fatigue Syndrome. This relatively recent health issue is poorly understood by health practitioners. Regardless of its exact cause, one of the major risk factors for this syndrome is repeated use of prescription antibiotics.

5. They contribute to nutrient deficiency. Some of the vitamins used by our body are produced in small amounts by beneficial bacteria living in our intestines: Thiamin (B_1), Riboflavin (B_2), Pyrodoxine (B_6), Folic Acid (B_9), and Vitamin K_2. In other words, they augment the vitamins we receive in our diet. Also, antibiotics can cause diarrhea, which leads to mineral loss. All of these factors contribute to suppressing the immune system (See Number 3).

6. They alter gastrointestinal flora. Prescription antibiotics kill indiscriminately. That means that beneficial bacteria living in our intestines, along with the pathogenic ones, are killed. This is really important because one of the major mechanisms for keeping pathogenic bacteria/fungi at bay is to have all of the internal real estate occupied with probiotic species. If there is no space to grow, pathogenic species have a difficult time establishing, multiplying, and causing harm. With altered composition of GI flora comes the potential for inflammation, diarrhea, development of food allergies, and nutrient deficiencies (see Number 5).

Given these health risks, and the financial cost of prescription antibiotics (especially for those without health insurance), it may be advisable for many people to stay clear of these drugs. Consider this fact: 80% of the active ingredients of prescription drugs administered in the United States are made outside of the country. Does this make you feel comfortable? Are you convinced the label is an accurate representation of what is in the bottle? Do be aware that counterfeit drugs are now being discovered in US pharmacies and clinics. I prefer to avoid these

altogether—I do not want to be lulled into a sense of false security, nor do I want to provide someone the opportunity to carry out bioterrorism on me or my family.

A final thought before providing some specific remedies you can use. Prescription antibiotics are usually comprised of a single active ingredient. This means that *Staphylococcus aureus*, the bacterium that causes staph infections, has only to survive the consequences of one chemical to create immunity (at which point the drug will have little or no effect, except on your probiotic bacteria). Plant remedies that utilize "whole herb preparations" are medicines that utilize crude extracts (such as water or alcohol as an extractive medium). These preparations (teas and tinctures) contain multiple (in some cases, many) active ingredients that work in a synergistic fashion to control and kill pathogenic bacteria. This means that herbal medicines often work when prescription antibiotics fail. The reasoning is simple: it is easier for a bacterium to develop resistance to one chemical than develop resistance to a suite of chemicals. To this end, I generally utilize at least two natural remedies concurrently when treating staph infections.

Wild

Here are four relatively common species that are all documented in multiple studies to effectively treat the staph bacterium. They are listed in alphabetical order.

(1) *Berberis thunbergii* (Japanese barberry). This spiny, non-native shrub has become very common in certain parts of New England. These include river-side forests and areas with a history of human disturbance (e.g., old fields, edges of forests, logging roads, forests near areas of human habitation). It is the yellow roots of this species that can be used as an effective antibacterial for staph. Some of the bitter-tasting compounds found in the roots are also found in the rare *Hydrastis canadensis* (goldenseal), a threatened plant in the northeast that should not be gathered for medicine from the wild due to its rarity. Fortunately, *Berberis thunbergii* is a potent substitute that is fairly common in some settled portions of New England. The compounds found in the roots are most effectively extracted using alcohol (therefore, I prefer to use tinctures rather than teas for this species). If you are unable to wild-collect this species and make medicine from it, you can purchase *Hydrastis canadensis* (goldenseal) in many health food stores as an alternative (the medicine found in the stores is made with cultivated goldenseal).

(2) *Juniperus communis* (low juniper) and *Juniperus virginiana* (eastern red cedar). These two woody plants are native to New England. The former (*Juniperus communis*) is a low, spreading shrub that is common in regenerating fields, old clearings, and open rights-of-way. The latter (*Juniperus virginiana*) is an upright shrub or small tree that is common in moist to dry clearings, such as fields, openings in woodlands, rocky balds, and open ridgelines. Both species can be used to effectively treat the staph bacterium. There are several parts of this plant that contain antimicrobial compounds. I prefer to gather a mixture of the seed cones (which appear as bluish berries) and leaves. This species is also best made using alcohol tinctures given some of the constituents are poorly soluble in water.

(3) *Rhus glabra* (smooth sumac) and *Rhus hirta* (staghorn sumac). These two native shrubs are found throughout New England as colonizers of open spaces. They are most frequently seen along field edges, in older clearings, and along roadsides. *Rhus glabra* (smooth sumac) has been

tested against staph in several studies and has been shown to be extremely potent. In one study that examined 100 different species, it was the most effective species against *Staphylococcus aureus*. Both species have a long history of use by the indigenous of North America as antimicrobials for wounds, burns, and cleansing. The leaves, inner bark, and (most potent against staph) budding flower arrays can be used to make medicine. The active constituents are polyphenols, meaning they are very water soluble (so medicinal teas can be used to create effective medicine, as well as alcohol tinctures).

(4) *Usnea* spp. (old-man's-beard). This lichen is common in many parts of the northeast, especially along the coast and at higher elevation and latitudes. It is an epiphytic lichen, meaning that it grows on other plants, in this case attached to trees and their branches. Though many species of tree harbor this lichen, it most commonly grows in abundance on evergreen trees of the pine family. I usually gather this lichen from *Abies balsamea* (balsam fir). Though there are many species of *Usnea* that grow in the northeast, they all contain the active ingredients that kill the staph bacterium. Even when highly diluted, this species of lichen is very potent as a remedy against staph. It also stimulates the immune system, an important action when the body is actively fighting infection. This species must be tinctured in alcohol to extract the pharmacologically active constituents. *Usnea* tinctures are common to many health food stores as well.

When I utilize antimicrobials for something as serious as staph infections, I prefer to use multiple species (for synergy) and focus on other items that support my immune function (diet, Vitamin D, immune-modulating plants and fungi). For teas (which will include infusions for thinner and/or softer parts or decoctions for thicker and/or tougher parts), I will take 3-6 doses a day for at least 7 days. Each dose represents 2–3 teaspoons of dried, crushed or ground material in one cup of water. For tinctures, again, I utilize 3–6 doses a day, with each dose consisting of 30–60 drops (depending on the person's size, age, health, etc.). Remember that these are adult dosages and the medicine must be continued beyond the point you feel better because the staph bacterium is still present and can recreate a serious infection if allowed to rebound.

If you are new to making medicine from wild or cultivated plants, it may seem daunting to you to gather plants and create effective remedies for something as serious as staph. In fact, it is something that you should do only with proper education in crafting medicine. However, it is an approachable art that anyone can gain a degree of expertise with. If there are terms here you do not understand, consider BOTH purchasing an herbal reference AND taking classes from someone experienced in wildcrafting medicine. Equally important, learn to harvest conscientiously so that the plants, fungi, and lichens will be there for generations to come. If you are not taught conservation practices, find another instructor.

Domesticated

(1) *Allium sativum* (cultivated garlic). If you are relatively new to herbal medicine and are not familiar with the wild species discussed above or are still unsure about making medicine once the wild plants have been collected, there are still options for you (as one who wants to learn to treat staph infections without prescription antibiotics). Garlic from the farm or store is one of those options. It is amazingly effective at treating staph and is known to contain more than 35

antibacterial compounds. The main problem with garlic is that it is such a potent medicine that when ingested raw in quantity it is an emetic (i.e., it will make you throw up). Cooked garlic will not be as effective because some of the active chemicals have been rendered inert by the heat of cooking. So, the trick is to hide it from your body using a vegetable juice. Following is the method and dosage.

Pour a cup of tomato juice into a mug or class. The thicker the juice, the better it works (because the minced garlic doesn't settle into a clump at the bottom, rather it gets suspended throughout the cup of juice). Use a garlic press or peel and dice the garlic into tiny pieces and mix it into the tomato juice. Start slow so you can see how your body responds to the garlic. Try two or three cloves at first. Some people will be able to ingest half a bulb (or more) at a time with this method without causing stomach upset. Try to ingest at least three whole bulbs throughout the course of day (that is bulbs, not cloves, but you can spread out the doses). For very serious infections, double or triple this amount. Do this for a week. Using this method, I have yet to have a single failure in treating staph infections.

Considerations. I know many people who love garlic that have simply ingested the garlic raw without the tomato juice. They have all thrown it back up. Garlic is a powerful emetic (remember this if you ever need to induce vomiting). Those same people have been able to ingest lots of garlic at a time using tomato juice to hide the garlic from the stomach. You will smell strongly of garlic. This may cause some people to avoid this effective method. I would prefer to eat quantities of a nutritious plant (regardless of the odor) than put myself at risk using synthetic medicine. You will need to make choices based on your situation.

Additional Considerations

Immune Support. Remember to assist your body during active infections using immune-modulating plants and fungi. These remedies will muster the faculties of the immune system and create a stronger defense.

Probiotics. Antimicrobials can and do affect the beneficial bacteria of our gastrointestinal tract. Continually resupply these microbes by eating fermented foods: kefir, yogurt, sauerkraut, kimchee, kvass, etc.

Additional Resources:

See my youtube channel: http://www.youtube.com/user/arthurdhaines?feature=mhee

Look at the list of classes, lectures, and programs: http://www.arthurhaines.com/learn.html

Purchase foraging books: http://www.arthurhaines.com/ancestral_plants.html

Arrange for classes or consultation: email me at arthurhaines[at]wildblue.net