

COVID-19: An Herbalist's Perspective

Guido Masé, Charis Lindrooth, Tammi Sweet & Deb Soule

Notes from the live webinar on March 16, 2020



BotanicWise Guest Speaker:

Guido Masé - Burlington Herb Clinic - Urban Moonshine

We know very little about this virus, its seasonality, and its transmission. It does seem to be more contagious than the flu, and does affect those over age 60 with heart disease, lung disease, and diabetes more significantly. There is no evidence that any of the classic herbs we use for cold and flu "treat" the virus. Instead of treatment, we have been focusing on good hygiene and prevention by strengthening immune function.

PLEASE take care of yourself: good food, good hydration, and most importantly GOOD sleep. If stress around all of this is an issue, consider adaptogens like American ginseng (if available organic) or Eleuthero ("Siberian" ginseng).

IF you suspect infection (dry cough, fever are the most common symptoms with little nasal congestion), CALL your healthcare provider and ask for directions on how to proceed.

COVID-19 is:

- An enveloped virus.
- RNA-based genome.
- Uses "docking" proteins to gain entry into cells (respiratory tract). S, or "spike" proteins, cleave into RBD and attach to ACE2.
- Transmitted by physical contact.
- Transmitted by airborne droplets.
- May be transmitted through body fluids.
- Can be on surfaces 72 hours (IDEAL lab world).

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What this means:

- Viral envelope very susceptible to alcohol, thymol, and soap.
- Removing virus from surfaces and hands reduces contact transmission.
- Distance: ideally 6 feet reduces airborne transmission.

What to do if you or a loved one feel "off:"

➤ If there's ANY SYMPTOM OF ILLNESS or ANY DIRECT CONTACT with an ill person:

1. STAY HOME!
2. CALL your healthcare provider.
3. CALL folks with whom you've had close contact.
4. FOLLOW your doctor's instructions.
5. NOTE: **Do not "go it alone" on this infection**, especially if you are in contact with higher-risk populations. Based on case reports from Seattle, the virus can cause symptoms to progress into a danger zone quickly. Don't delay asking for support. The key symptoms seem to be dry cough and fever, though this can vary. Call your healthcare provider(s). Follow their directions.

Reducing transmission is important!

Most effective: HAND WASHING

Next best: Hand Sanitizer

Hand washing is effective to reduce transmission:

- Soap and water for 20 seconds.
- Scrubbing/rubbing all parts.

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- Drying thoroughly.
- Before and after entering a new location/potential contamination.
- Hand sanitizers are an option, especially on-the-go.

Hand Sanitizer: EPA/FDA/CDC

1. **Alcohol-based: min 60% alcohol** (rubbing or ethanol)
2. **Thymol-based: min 0.25% thymol**
 - Essential oil of thyme ~ 30% thymol
 - Essential oil of oregano ~ 5-10%
 - Concentrations can vary, so "benchmark thyme" attempts to standardize.
3. **Approved sanitizers for COVID-19:**
 - https://www.aphis.usda.gov/animal_health/emergency_management/downloads/coronavirus-disinfectants.pdf

Alcohol-based sanitizer

Ingredients:

1. 2 parts Alcohol (**see below)
2. 1 part Aloe Vera gel
3. 5-10 drops your choice of essential oil per ounce of sanitizer (optional, to improve odor).

Directions: Dispense into squirt bottles. Squirt a pea-sized amount on your hands, rub in, and allow to dry.

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Notes from the live webinar on March 16, 2020



****Key consideration:** The alcohol you use can be rubbing (isopropyl) or "regular" (ethyl, or ethanol), but *must be at least 90% (180 proof)*. Concentrations are listed on the bottle (eg. at the drugstore, rubbing alcohol should say "91% isopropyl alcohol"). Don't use 60% isopropyl or anything lower than 90%. Alcohol-based sanitizers need to be at least 60-70% alcohol.

Alcohol-free sanitizer (Thymox) - FDA/EPA have approved "Thymox" (a solution of 0.25% thymol) as a coronavirus-effective disinfectant. We can recreate a 0.25% thymol solution using these **ingredients**:

1. Water, 29 mL (about 1 fluid ounce). Using distilled water is best, but any clean, fresh water will do.
2. Gum Arabic, a dispersant, 300 mg
3. Benchmark Thyme essential oil, 0.8 mL (Consistently high thymol concentration, which is assayed. [See this link](#) for more information and additional distributors.)

Directions: Add the essential oil to the Gum Arabic and mix thoroughly. Add the paste to the water and shake well. Pour into a spray bottle and dispense by spraying. Rub into the hands and allow to dry.

The importance of SOCIAL DISTANCING:

- Yes, hand washing and surface cleaning help, but the most effective way to slow things down is to REDUCE HUMAN-TO-HUMAN CONTACT.
- Simulations: <https://www.washingtonpost.com/graphics/2020/world/corona-simulator/>

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Notes from the live webinar on March 16, 2020



What about stores? What about our herb shops? Two competing concerns:

1. **DON'T be a transmission hotspot.**

- **SOLUTIONS:** Customer sanitation procedures, register/point of contact procedures, clear staff decontamination policy, enhanced space/surface sanitation. BEST SOLUTION: Close the shop.

2. **PEOPLE need ACCESS to herbs** (long-standing clients, extra need for nervines/adaptogens, supportive herbs if instructed to quarantine at home).

- **SOLUTIONS:** Online access. Have customers log in first (store offerings behind a login for your protection). Continue using the shop as a dispensary with clear staff decontamination policy. Pick-up has issues, unless customers call and each package is dropped at the front door case-by-case. Local home delivery (i.e. for those quarantined).

What can we do to treat COVID-19?

We KNOW OF NO TREATMENT, herbal or otherwise.

WHAT WE CAN DO:

- Learn about who is at high risk.
- Learn about characteristic symptoms.
- Practice good self-care.
- Reduce transmission.
- Facilitate the work of healthcare providers, and follow their guidelines.

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Notes from the live webinar on March 16, 2020



Who is at high risk?

- We know very little about this virus, seasonality, transmission.
- It does seem to be more contagious than the flu, and cause worse symptoms in those at high risk though symptoms can be mild in younger/healthy folks.
- It does affect those over 60 and with heart disease, lung disease, and diabetes more significantly.

What are characteristic symptoms?

- Symptoms can vary, and in some cases be very mild or almost unnoticeable.
- The incubation period is 5-13 days. Infected folks might be contagious during incubation, or their symptoms might be so mild as to be ignored.
- Most characteristic symptoms: FEVER and dry cough, with little nasal congestion.
- IF you suspect infection in yourself or a household member, CALL your doctor/emergency room (don't go in person unless instructed to do so) and ask for direction.
- **DO NOT "go it alone" on this one**, especially with higher-risk populations. The virus can cause symptoms to progress into a danger zone quickly. Don't delay asking for support.

What are good self-care practices?

- It's important to support your overall resilience and immune function.
- Good whole food, good hydration, and most importantly GOOD sleep.
- For stress in this situation, consider adaptogens like American ginseng (if available organic), Ashwagandha, or Eleuthero ("Siberian" ginseng).
- For nervine support, turn to our trusted allies: Milky Oats, Linden, Skullcap.

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Notes from the live webinar on March 16, 2020



- Consider having extra for friends/family/neighbors.
- REACH OUT: Call, video-chat, connect with friends and family frequently.
- **Avoid:**
 1. Excessive alcohol use (can dampen immune function).
 2. Excessive sugar consumption (can dampen immune function).
 3. Cannabis? Smoking is hard on the lungs. Limited theoretical evidence might suggest CBD can dampen immune function; this is unclear for COVID-19.
- IF you suspect infection, CALL your doctor/emergency room (don't go in person unless instructed to do so) and ask for direction. STAY HOME.

What are safe herbal support ideas?

1. **Astragalus** and medicinal **mushrooms**, esp. Reishi (*Ganoderma lucidum/tsugae/oregonensis*). Relatively high amounts: 1 tsp. Astragalus tincture 2x/d, 7-12 g Astragalus total in caps/powder/decoction daily. 2 mL mushroom extract and/or blends, or 3-4 g mushroom extract powder, or 4-5 g mushrooms decocted daily. **FOR ALL. MODULATIVE.**
2. **Lung support herbs** include Pleurisy root (*Asclepias tuberosa*), Licorice root (caution w/ high blood pressure), Mullein leaf, Elecampane root, Balloon Flower root (*Platycodon grandiflorum*), Usnea. **FOR THOSE INSTRUCTED TO QUARANTINE AT HOME.**
3. **Warming aromatic diaphoretics** are theoretically a good idea: Ginger, Angelica, Lomatium, Ligusticum (Osha - caution - endangered). Fire cider. **FOR THOSE INSTRUCTED TO QUARANTINE AT HOME.**

COVID-19: An Herbalist's Perspective

Guido Masé, Charis Lindrooth, Tammi Sweet & Deb Soule

Notes from the live webinar on March 16, 2020



Have any herbs received specific attention for COVID-19 treatment?

- There is no evidence that our classic antiviral herbs help once symptoms have started. It is too new.
- Supportive measures are good, **AFTER consulting with healthcare providers and if asked to quarantine at home.**
- There may be some herbs that are specifically indicated. But remember:
 - We know very little about how this virus behaves.
 - We know even less about how herbs interact with the illness.
 - Immune-related pharmaceuticals have had mixed results.

Have any herbs received specific attention for COVID-19 treatment?

1. One formula (Shuang huang lian) is receiving attention in China, but keep in mind it is often used as an injection. It is Baikal skullcap root (*Scutellaria baikalensis*), Forsythia fruit, and Honeysuckle flower (*Lonicera japonica*).
<https://www.medrxiv.org/content/medrxiv/early/2020/03/03/2020.03.01.20029611.full.pdf>
2. Another formula (Lianhua-Qingwen) is similar, previously used for SARS (2002-2003) and more recently for COVID-19. It is Forsythia fruit, Ephedra, Honeysuckle flower, Apricot kernel, True Indigo root (*Isatis tinctoria*), Wood Fern rhizome (*Dryopteris crassirhizoma*), Hottunya, Pogostemon roots, Chinese Rhubarb root (*Rheum officinale*), Rhodiola, and Licorice, with some Menthol and Gypsum.
3. Others, including Ma Xin Gan Shi Tang and Yin Qiao San, include similar herbs with some variation. For full review, see <https://www.ijbs.com/v16p1708.pdf>
4. There has been some mention of using Hydrochloroquine, an antimalarial drug. Cinchona (Peruvian bark) is not the same, and can be toxic.

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Notes from the live webinar on March 16, 2020



Are there any takeaways/herbs we can access here?

- TCM indications: "Clear heat, remove toxicity"
- Biochemistry: Anti-inflammatory, lung support, immunoregulatory and even in some cases reportedly immunosuppressive (Shuang huang lian, e.g.).
- These indications inform the selection of lung support herbs and diaphoretics listed earlier.
- Baikal skullcap, Licorice, *maybe* True Indigo root (*Isatis tinctoria*).

Anything else with any evidence of treating COVID-19?

- No. More is not necessarily better.
- If you have been instructed to quarantine at home, give lots of hydration and supportive herbs as noted above (lungs, diaphoretics).
- If you have been told to go to the hospital, leave herbs behind.
- Herb most useful for fever management, based on what we see coming out of China: Baikal skullcap root (*Scutellaria baicalensis*). Start with 2-3 mL of a tincture 2-3x a day, or 3 g of root decocted 2-3x a day.

Anything herbal that is dangerous?

- This is a difficult question. In general, it is best not to overdo it!
- There is some concern around the characteristics of the disease in its most virulent form: Destruction of lung alveolar tissue, a massive release of immune-active cytokines ("cytokine storm"), and sepsis followed by death.
- There is *conflicting, theoretical* evidence that Elderberry (*Sambucus* species) may increase cytokine release in some cases.

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Notes from the live webinar on March 16, 2020



- **Elderberry** contains immune-active lectins (like mistletoe), in the berry (though more in its leaves). These ramp up immune function and may limit viral incursion into cells, theoretically impacting likelihood of first infection.
- **What does this mean?** Taking Elderberry ONCE SYMPTOMS ARE PRESENT will not likely be as effective as some of the other measures discussed, and in folks with immune dysregulation or with severe symptoms, might (theoretically) be contraindicated. The likelihood that a hospitalized patient will be taking Elderberry is low. **Best to rely on the medical system for severe cases.**

What about after returning from the hospital?

- General support with nutritive, restorative herbs including: Astragalus, mushrooms, adaptogens and nervines as needed.
- Sore throat support: Sage, Licorice, Marshmallow (if patient was on a ventilator/intubated).
- Depending on what happened, long-term lung tonics are warranted.
- It has been reported that re-infection *may* be possible (information is conflicting). Follow all precautions the general public are taking until we know more.

How can we reduce transmission?

- Hand washing and sanitizer.
- Cover cough/sneeze with tissue or sleeve.
- Limiting in-person contact unless absolutely necessary.
- Limiting gatherings (> 10 people?).
- No contact with at-risk groups.
- If you don't need to leave, stay home.

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Notes from the live webinar on March 16, 2020



How can we help healthcare providers?

- Actively helping to reduce transmission is important: sanitize, reduce contact.
- Contacting healthcare providers for instruction (via phone) at first signs of any symptoms, especially fever (85% of cases, even if mild).
- Following guidelines and directions issued by your local healthcare authorities and CDC: <https://www.cdc.gov/coronavirus/2019-ncov/community/index.html>

Charis Lindrooth, D.C. - BotanicWise

- **Avoiding sugar and alcohol:** A study in The American Journal of Clinical Nutrition confirmed that eating sucrose, honey, or even unsweetened orange juice dampened neutrophilic phagocytosis by 40% for up to five hours. ([Link to article](#))
- **Zinc:** Shuts down replicase - the enzyme within the cell that enables the replication of the viral RNA genome. However, zinc+2 is an ion that cannot penetrate the cell without a transporter (ionophore). Chloroquine (generic anti-malarial) is a zinc ionophore and may be appropriate in a medical setting. Hypothetically, quercetin and other polyphenols may act as zinc ionophores as well. ([Link to article](#))
 - Chloroquine also may shift pH so lysosomes can't merge with the virus and gain entry into cell.
- **Herbal throat spray:**
 1. For DIYers this is a nice starting point: <https://thenerdyfarmwife.com/diy-herbal-throat-spray-recipe/>

COVID-19: An Herbalist's Perspective

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Notes from the live webinar on March 16, 2020



2. If you prefer to purchase online, try this one from Avena Botanicals:

<https://www.avenabotanicals.com/products/herbal-throat-support-with-honey>

- More reading:

- [As coronavirus spread speeds up, Montreal researchers will trial an anti-viral treatment for COVID-19 in China](#)
- [Quercetin as an Antiviral Agent Inhibits Influenza A Virus \(IAV\) Entry](#)

Tammi Sweet - [Heartstone Center for Earth Essentials](#)

- The emotion of anger suppresses immune function for up to 6 hours. Modulating our nervous system is a great way to boost immune function by including simple feel-good activities in your day-to-day routine. [\(Link to article\)](#)
 - Put your hands/feet in the dirt
 - Interact with plants
 - Fresh air
- CBD immune suppression? Study citing this was done with mega-doses of CBD isolates on mice [\(Link to article\)](#). Whole plant medicine is best.
- Bidens spp. - antimalarial & used in Lyme treatment - must be FRESH juice or FRESH tincture.

Deb Soule - [Avena Botanicals](#)

- Recommended Plants:
 - White Pine tea
 - Lavender facial steam

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- Rose teas/elixirs to heal the heart for fear, stress, anxiety
- Astragalus root
- Aromatic Nervines as support for anxiety
- Foot baths with your favorite herbs
- [The power of collective meditation proven to reduce crime rates](#)
- You can learn more about Metta Meditation here:
<https://www.mettainstitute.org/mettameditation.html>

*"May all beings everywhere dwell in the heart.
May all beings everywhere be free from suffering.
May all beings everywhere be healed.
May all beings know the joy of their own true nature.
May all beings live in peace.
May all beings live with ease."*

Disclaimer: The information presented in COVID-19: An Herbalist's Perspective in no way serves as a diagnosis or treatment of any medical condition, nor should it take the place of the advice and treatment offered by a qualified health care practitioner. Consult your healthcare provider before implementing any program. Please seek medical advice immediately if you suspect you have symptoms of COVID-19.