



WHOLISTIC
KIDS & FAMILIES

COVID-19 Update

Dear Families,

Our society is in a state of panic. The question we must ask is if this panic is justified. To understand this panic, it is helpful to consider why this panic is here.

Sadly, we live in a society that has become based in fear and the mindset that the human body is this passive vessel that is to be immunized and medicated in order to be protected. While this is not a discussion about vaccines, it is a discussion of the incredible capacity of the human body and what it can accomplish when it is healthy. Some will choose to panic. Some will choose to live in a state of fear. The reality is that the vast majority have nothing to fear. A healthy immune system can easily process this virus, which the majority of us who are under 55 have! This is very important to note!

I suggest you focus your energy on making sure you and your family are as healthy as possible going through these next several weeks. While conventional medicine has many wonderful things to offer, we are now in a time where we have no conventional solutions or tools to address this challenge at hand, and so our society is in a state of panic. We don't need to panic, and there are tools, if you know how to find them.

With 130,000+ cases and a publicly reported death rate of 3.4%, this is certainly a virus we need to be aware of. Despite this, with a child in school and a 2-month-old at home, and myself constantly being exposed to multiple viruses, I can say that I am still not worried. Here is the reason why.

A detailed analysis of the statistics that are available to us is helpful. While the COVID-19 death rate is markedly higher than most other viral infections, the 3.4% is likely an overestimate since we likely have many mild infections that are not being reported.

<https://www.latimes.com/science/story/2020-03-07/why-the-coronavirus-fatality-rate-keeps-changing>

More so, we must closely analyze the death data, and based on these published studies/reports,

<http://weekly.chinacdc.cn/en/article/id/e53946e2-c6c4-41e9-9a9b-fea8db1a8f51>

<https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>

<https://www.worldometers.info/coronavirus/coronavirus-age-sex-demographics/>

COVID-19 fortunately seems to **largely spare young children and healthy adults. There have been no deaths reported in children under 9 years of age. Potential for harm/death in healthy adults is low, likely is no different than a bad flu!**

I am **VERY worried for our elderly, especially those who are** not in optimal states of health. The vast majority of deaths that have been reported were in older adults with underlying health challenges (heart disease, diabetes, chronic respiratory disease, high blood pressure, cancer). According to one report, COVID-19 has a death rate of 14-20% in those older than 80 years, and death rates of 4% in 60-69, and 8% in 70-79. If anyone should consider exercising a higher degree of caution, it is our beloved older adults above the age of 60. Please DO notify grandparents and other elderly loved ones, especially those with underlying health problems (heart, lung in particular), to be VERY cautious... I would suggest they limit their activities, air travel and large places of congregation.

Since we do not fully understand this virus, and the available data is still limited, I also suggest a high degree of caution for children with underlying health problems (uncontrolled asthma, heart conditions, cancer, severe and recurrent viral infections, etc....). If you have questions, please consult with your physician to see if they are concerned about your child's ability to handle this virus. I also suggest caution for younger (<60 years) adults who have history of cancer, heart disease, uncontrolled diabetes, asthma, etc. to be very careful. This virus may cause you harm. For these groups, you may wish to consider restricting activities and do what you can to avoid significant exposure.

Be prepared for things to get worse, with increased public fear and hysteria, before things get better. The fear and hysteria that we see is not justified (for the vast majority of us). Cold viruses, including Coronavirus stop replicating once the weather warms up. I suspect we have 4-6 weeks to go and then things will improve. We will all get through this easily, together. Let's make sure we take the steps we need to protect ourselves and our loved ones. In this update, I have intentionally included multiple products that can be purchased by anyone, anywhere. Feel free to share this update with your family and friends as you see fit.

In health!

Pejman Katiraei, DO

When to react/worry:

This is very important. Your initial reaction will be to have every cough and fever examined. This is NOT a good idea. You may expose yourself/your child to other viruses AND expose others to your illness. Outside of large hospital setting, our clinic and most others CANNOT test for COVID-19. IF YOU OR YOUR CHILD HAVE MILD-MODERATE SYMPTOMS, PLEASE STAY AT HOME, MONITOR and treat the symptoms as they arrive. ONLY seek medical care if:

- LETHARGY: If you or your child are very lethargic (can't open eyes, move, drink especially when fever reducers such as Tylenol or Motrin are used). This is different than mild fatigue, especially with an untreated fever, which is completely expected and normal!!
- SEVERE COUGH: If you or your child cough incessantly to the point where you can't breath, or the coughing is persistent and aggressive. A mild cough is not a reason to become concerned.
- BREATHING DIFFICULTY: If you see any signs of breathing difficulty which including retractions (bellow or space between the ribs get sucked during breathing in). If your child has a fever, they will naturally be breathing faster. Please bring down the fevers and reassess the breathing afterwards.
- VOMITING: You should also be concerned if there is persistent vomiting, to the point that you or your child are unable to keep fluids down. Obviously, we need to be concerned if there is blood in the vomit as well.

Please consult with your physician if you see anything concerning. Please consult with your physician's office prior to scheduling an appointment at the clinic, unless you see concerning signs based on the criteria above. If there are severe signs of lethargy, difficulty breathing, or other life-threatening challenges, please go straight to the emergency room!

What to do:

1) Diet:

- a. AVOID: As I stated before, you must eliminate any inflammatory foods. You will not be able to supplement your way out of an unhealthy diet. Insulin spikes are the mother of all inflammatory triggers. Please avoid sugar and other simple carbs to whatever extent possible. Depending on your family's history, reduce or eliminate dairy (especially cow dairy) and gluten. Please see our cold/flu handout for a detailed discussion on diet. <https://wholistickids.com/2019-2020-cold-flu-update/>
- b. EAT: The healthier the intestinal tract is, the more controlled the inflammatory response will be. Healthy fiber is the best way to achieve this. Have your family eat as many vegetables as possible. Onions and garlic not only have amazing anti-bacterial and anti-viral properties, but they are also the BEST prebiotic foods around. Since we are all afraid of each other, might as well get as stinky as you can! 😊 Mushrooms are also an amazing prebiotic food and can be very helpful to feed the gut bacteria... Our noted handout has many other dietary recommendations for you to consider.

2) Supplements:

** Many of the supplements listed below can be found at Whole Foods, along with amazon, iherb.com and pureformulas.com, along with other websites.

** If you or your family members have any health problems, PLEASE CONSULT WITH YOUR DOCTOR OR HEALTHCARE EXPERT prior to starting any supplements recommended below.

** Older family members: I have given instructions on dosing of supplements for the beloved older people in your family as well. Please have them check with their doctors before starting supplements, especially if they have any underlying health problems.

- a. **Gut:** If you have picky eaters (big or small) who struggle to eat vegetables, prebiotic supplements are an OKAY alternative. Prebiotics are basically fertilizer to help the good bacteria in the intestinal tract grow effectively. Over time, I have found them to be even more effective than taking probiotics (the actual bacteria). Inulin is the most easily available prebiotic out there. Klaire labs' Biotagen is currently my favorite product.
- i. **DOSING:** (1-4 years – 1/3 teaspoon, 4-8 years 1/2 teaspoon, 8-12+ years ½ - 1 teaspoon). If you see gas, bloating, diarrhea, stop and reduce the prebiotic by 50% and the symptoms should go away.
- ii. **PRODUCTS:**
1. <https://www.pureformulas.com/biotagen-150g-by-klaire-labs.html>
 2. <https://www.pureformulas.com/inulin-powder-certified-organic-8-oz-by-now.html>
 3. <https://www.pureformulas.com/inulin-fos-180-grams-by-jarrow-formulas.html>
- b. **Vitamin D:** With influenza, several studies demonstrated that low levels of vitamin D can result in increased complications including pneumonia. I presume the same rule will apply to coronavirus. EVERYONE should be supplementing with vitamin D3 at this time.
- i. Long term maintenance dosing:
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|---------------------|------------------|------------|------------------|
| Infants 0 – 2 year: | 400-500IU | 2-6 years: | 1,000IU each day |
| 6-10 years: | 1,500IU each day | 8+ years: | 2,000IU each day |
- ii. If you or your loved ones have not been supplementing regularly, DOUBLE THE ABOVE doses and continue daily until mid April. Consult with your physician as needed.
- c. **ZINC:** Zinc is another critical nutrient/mineral that was previously shown to minimize the complications from influenza. Please make sure you are taking a multi with zinc or supplementing with zinc directly. Please see our cold/flu handout available on our website for a list of foods that are rich in zinc.
- i. **DOSING:**
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|-------------|------------------|--------------|---------------|
| 1-3 years: | 4mg each day | 4-8 years: | 6mg each day |
| 9-13 years: | 12mg each day | 13-18 years: | 15mg each day |
| Adults: | 15-25mg each day | | |
- d. **Sambucus Nigra (Black Elderberry)**, in two different studies, was shown to be helpful in reducing the viral load of PRIOR coronaviruses (SARS included).^{1,2} There are countless products on the market that have Sambucus nigra. Please follow the manufacturer dosing, as the products vary in concentrations and formulations.

- e. **Eleutherococcus (Eleuthero)** is an amazing plant which the herbal community considers a great adaptogen and immune booster. As noted in this study³, Eleuthero contains Savinin which seems to be effective against prior Coronaviruses. Eleuthero is not the best tasting of all plants in a liquid form, but is available if you wish to give it to children. AVOID in individuals with high blood pressure.
- i. Some products to consider:
 1. <https://www.pureformulas.com/eleuthero-1-oz-by-herb-pharm.html>
 2. <https://www.pureformulas.com/eleuthero-root-60-capsules-n-by-gaia-herbs.html>
 3. <https://www.pureformulas.com/siberian-eleuthero-standardized-60-capsules-by-natures-way.html>
 4. ***Fortunately, Eleuthero is a common and stable plant, so quality does not vary greatly between different manufacturers. The Nature's Way product below is above average in quality.
 - ii. Dosing (daily):

2-5 years: 50mg	5-10 years: 100mg
10-18 years: 100-200mg	18+ years: 200-500mg
- f. **Quercetin** was also found to be helpful in reducing the viral load of the prior coronaviruses.⁴ Quercetin is also a powerful anti-inflammatory/anti-histamine which can theoretically be helpful in minimizing the inflammatory sequela of the coronavirus (where all the serious trouble starts). Quercetin is a widely available product found in stores and online.
- i. Dosing (can be taken daily):

2-4 years: 50mg	4-8 years: 50-100mg
8-12 years: 100-200mg	12-18years: 200mg

 Adults and elderly 200-400mg each day
 - ii. A nice product that combines quercetin with vitamin C and bromelain (another wonderful anti-inflammatory) is: <https://www.pureformulas.com/activated-quercetin-100-capsules-by-source-naturals.html>
 - iii. We carry D-hist Junior in our office which is a good tasting quercetin chewable. Quercetin can easily be found in most stores and websites. It is a stable product that has little variability amongst companies.
- g. **Glutathione and friends:** When you troll the literature of asthmatics and those with various pulmonary/respiratory conditions, the studies demonstrate that many of these individuals lack antioxidant defenses at the lung cellular level. From what I can deduce (a guess only), a lack of antioxidants at the lung cellular level may increase our vulnerability to complications from COVID-19. The primary antioxidant that is missing in these individuals is glutathione. While I wish fixing asthma was as easy as giving glutathione (it is not!), I do believe that increasing glutathione levels is a good idea to protect you and your loved ones during this time of illness. Please refer to our cold/flu handout on a list of foods that can do this naturally.
- i. **Vitamin C** works its magic by recycling/increasing glutathione levels. You will note that doses below are conservative. You do NOT need to take huge amounts of C to boost glutathione levels...

Dosing:

1-3 years: 50 mg

3-6 years: 100mg

6-10 years 200mg

10+ years 200-400mg

Elderly: 200-300mg (do not overload as many elderly lack strong kidney function)

- ii. **N-acetylcysteine (NAC)** is an inexpensive compound that can naturally increase glutathione levels. It is absolutely disgusting tasting/smelling, so opening the capsules is not a great idea! When taking NAC +/- C, stay well hydrated as there is a very small risk of kidney stones if you get dehydrated. For elderly, you may wish to give this every other day.

Adults: Take 400-600mg each day.

- iii. **Glutathione:** For young children, I prefer combinations that include glutathione. My favorite glutathione product is from **Apex Energetics**. Unfortunately, this is only available through medical office and is not available online.

DOSING (3-5 times a week)

1-2 years: 1ml

2-4 years: 2ml

4-8 years: 3ml

8-12 years: 4ml 12+ years: 5ml

- iv. **Other Glutathione:** There are also many other great glutathione products available online as noted below.

1. <https://www.quicksilverscientific.com/all-products/liposomal-glutathione/>
2. <https://www.pureformulas.com/liposomal-glutathione-liquid-17-fl-oz-50-ml-by-pure-encapsulations.html>

3. Dosing (3-5 times a week)

1-2 years: 20mg 2-4 years: 30-40mg 4-8 years: 40-60mg

8-12 years: 60-100mg 12+ years: 100-200mg

Elderly: Fortunately, these glutathione products do not have huge demand on the kidneys and can be taken safely.

3) Products we use in our clinic:

a. ImmuBoost+ essential oil blend

- i. *Ingredients: Thyme, Eucalyptus, Fir, Lavender, Lomatium.* In the studies that I could find, Thyme essential oil is perhaps one of the most effective essential oils when tested against PRIOR coronaviruses.⁵ In this new mixture, we presume the other ingredients will be effective.

In my experience, INHALATION OF ESSENTIAL OILS (per instructions below) are the MOST EFFECTIVE WAY TO TREAT VIRAL INFECTIONS. Whatever oil combination you prefer, have something available that you and your family can SAFELY INHALE, and start using it immediately at the onset of a cold. These oils are far less effective 2-3 days after the start of the viral infection.

- b. **WKF Cough and Cold Essential oil** also has thyme as one of the primary ingredients, along with a small amount of peppermint (the highest safe amount we could include). The above noted study also found that Oregano and Peppermint oils are helpful against PRIOR Coronaviruses.

- i. Unfortunately, oregano is not safe for inhalation. It can be ingested. I would use caution in having elderly ingest oregano oil on a regular basis as it may cause them digestive problems. I am unable to provide dosing instructions for oregano oil, as I don't have much experience with it.

- ii. *Please see the end of this document for dosing and instructions for use of the essential oil blends.* You are also welcome to consider other oil blends that are safe for inhalation.

** In the below formulas, the referenced study demonstrated that compounds found in Eleutherococcus (Savinin) and Birch (Betulonic acid) are also helpful in inhibiting PRIOR coronaviruses.⁶ Eleutherococcus is also widely available as noted below.

c. **ImmuBoost+ Children's**

- i. Ingredients: Gemmotherapies: Fir, Birch. Extracts: Elderberry, Eleutherococcus. Oils: Valencia Orange, Lemon, Peppermint
- ii. Preventative daily dosing:
 - 1-2 years: 0.5 ml 2-4 years: 1 ml
 - 4-8 years: 1.5 ml 8-12years: 2 ml
- iii. Illness dosing
 - 2-4 years: 2ml twice a day 4-8 years: 3ml twice a day
 - 8-12+years: 3ml three times a day

d. **ImmunBoost+ Adult**

- i. Extracts: Elderberry, Eleutherococcus, Birch Bark. Oils: Thyme, Eucalyptus, Fir, Lavender, Lomatium
- ii. Preventative daily dosing:
 - 8-12 years: 1ml 12-18 years: 2ml 18+ years: 3ml
- iii. Illness dosing:
 - 8-12 years: 2ml twice a day 12-18 years: 3ml twice a day
 - 18+ years: 3ml three times a day

Use of Essential Oils

Methods of administration:

- Indirect application into the air. This is the safest, **yet least effective way** of administering essential oils. While some of the oil will be inhaled, the concentrations will be far less than direct application as below. If you do use this method, for children older than 2 years, close the door of the room to concentrate the oils in the air. Avoid running humidifiers around the clock as the added humidity can increase mold and dust mites...
 - o Humidifier (can be continuous) – keep humidifier away from your child.
 - 6-12 months: 8 drops per gallon of water
 - 12-24 months: 10 drops per gallon of water
 - 24+ months: 12-15 drops per gallon of water
 - o Diffuser (can be continuous) – keep the diffuser at least 3 feet away from your child.
 - 6-12 months: 1-3 drops
 - 1-3 years: 3-5 drops
 - 3-6 years: 5-8 drops
 - 6-12+ years: 8-12 drops

- **Direct application** – by directly applying the oils onto the skin or into the airway, you will have a higher degree of oil absorption and effectiveness.
 - **Massage:** Mix the essential oils with 1-2 teaspoons of your oil of choice (olive, almond, jojoba, etc.) and massage into the chest area every 6-8 hours. Do not apply directly to the face.
 - 2-6 years: 3-5 drops, 6-12 years: 5-7 drops, 12+ years: 8-10 drops
 - **1-2 years – you must be careful to not have the little ones inhale the oil. As such, you put 2 drops in 1 teaspoon of carrier oil and *ONLY apply it to the child’s back and base of feet to avoid inhalation.*
 - **Inhalation:** Inhalation of suitable/safe essential oils (**not all oils can be inhaled**) is perhaps the **MOST EFFECTIVE** way to administer essential oils. Inhalation of the oils delivers them directly into the sinuses and areas where the viruses are actively replicating and causing infection. Inhalation of the oils at the onset of illness should be your first line treatment against viral infections.
 - Hand mask method (2+ years) – put the drops of essential oil in the palm of your hand, rub your hands together quickly, put your hands together to make a cup/mask and bring that mask to your face or that of your child and take deep breaths ideally alternating between mouth and nose. For younger children (2-3 years), also do a trial run with 2 drops of oil to make sure they tolerate the oils well.
 - 2-4 years: 2-3 drops 4-8 years: 3-4 drops 8+ years: 4-6 drops
 - For older individuals, please have them test 1-2 drops first to make sure there is no adverse reaction or breathing problems before doing higher doses.
 - Cloth method (2-6 years) – put 1-3 drops onto a cloth/towel moistened by warm water and allow child to inhale oils while keeping cloth about 3-4 inches away from their mouth for 1-2 minutes at a time. Repeat every 4-6 hours as needed.
 - Nebulizer (6+ years) – put 2-5 drops of the essential oil into nebulizer chamber with a vial of saline or albuterol and allow child to inhale nebulized mixture. Repeat every 4-6 hours as needed.
 - Steam inhalation (6+ years) - put 2-6 drops of the essential oils in a bowl of hot/steaming water and drape a towel over the head. Directly inhale the steam/oil mixture for 2-5 minutes based on tolerance. Leave at least 12” between your face and the water to prevent any irritation. Watch for any irritation of the eyes.

THIS HANDOUT OFFERS HEALTH, WELLNESS, FITNESS AND NUTRITIONAL INFORMATION AND IS DESIGNED FOR EDUCATIONAL PURPOSES ONLY. YOU SHOULD NOT RELY ON THIS INFORMATION AS A SUBSTITUTE FOR, NOR DOES IT REPLACE, PROFESSIONAL MEDICAL ADVICE, DIAGNOSIS, OR TREATMENT. IF YOU HAVE ANY CONCERNS OR QUESTIONS ABOUT YOUR HEALTH OR THE HEALTH OF YOUR FAMILY, YOU SHOULD ALWAYS CONSULT WITH A PHYSICIAN OR OTHER HEALTH-CARE PROFESSIONAL. DO NOT DISREGARD, AVOID OR DELAY OBTAINING MEDICAL OR HEALTH RELATED ADVICE FROM YOUR HEALTH-CARE PROFESSIONAL BECAUSE OF SOMETHING YOU MAY HAVE READ ON THIS HANDOUT. THE USE OF ANY INFORMATION PROVIDED ON THIS HANDOUT IS SOLELY AT YOUR OWN RISK. NOTHING STATED OR POSTED ON THIS HANDOUT OR AVAILABLE THROUGH ANY SERVICES ARE INTENDED TO BE, AND MUST NOT BE TAKEN TO BE, THE PRACTICE OF MEDICAL OR COUNSELING CARE. FOR PURPOSES OF THIS AGREEMENT, THE PRACTICE OF MEDICINE INCLUDES, WITHOUT LIMITATION, PROVIDING HEALTH CARE TREATMENT, INSTRUCTIONS, DIAGNOSIS, PROGNOSIS OR ADVICE.

¹ <https://www.ncbi.nlm.nih.gov/pubmed/24433341>
² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6540435/>
³ <https://www.ncbi.nlm.nih.gov/pubmed/17663539>
⁴ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6540435/>
⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6540435/>
⁶ <https://www.ncbi.nlm.nih.gov/pubmed/17663539>