



WHOLISTIC  
KIDS & FAMILIES

Dear Families,

I hope you are all well and staying safe. You have been told the only thing you can do is be on the defensive. I say it is time for all of us to go on an offensive against this virus. We are told that the only way to limit the harm from this virus is to practice social distancing. **Social distancing and staying at home are critical, and it is everyone's responsibility to limit the spread of this virus! There is no question about that!!! This is not the time for us to be careless or irresponsible.** At the same time, social distancing can no longer remain our ONLY prevention tool.

Think about this. Our current (and only) game plan is to DELAY catching this virus (because ultimately 60%+ of us may become infected), so that we can have enough ICU beds and ventilators ready to accommodate all of those, perhaps you, who are going to become very ill and die. We are waiting for medications to be tested for use in the ICUs to minimize the number of deaths. **Have you seen one research study looking at tools to prevent people from landing in the ICU?** We don't have any such study, because we have a treatment-focused medical system, not a prevention-focused model!

We believe that a vaccine is the only tool that can prevent this virus, and so we are willing to wait a year+ and let's hundreds of thousands die until we have a viable vaccine. While the Chinese are aggressively using herbs to minimize the risk from this virus, we continue to believe there is NOTHING else that can be done to help minimize the risk of individuals from landing in the ICU. This logic is flawed.

What happened to prevention (outside of social distancing)? Why have we not heard anything from our government officials about what steps to take when you get sick **to keep yourself (and loved ones) out of the hospital?** I have spoken to hundreds of adults, and not one was contacted by their primary care doctor to develop a preventative game plan. Right now, our front lines are the ERs and ICUs where brave nurses and doctors are fighting day and night to keep people alive. **We need to move the front lines from the ICUs where people are dying to the community, where the infections start.** Yes, social distancing and staying at home are critical for slowing the spread of this virus, but they can no longer remain our only game plan. **YOU MUST HAVE A GAME PLAN READY TO START THE SECOND YOU OR YOUR LOVED ONE GETS SICK TO MINIMIZE YOUR CHANCES OF ENDING UP IN THE HOSPITAL.**

I have many brilliant adult doctors I am lucky enough to know. These physicians have all been able to keep countless patients out of the ICU and hospitals. It has not been easy, but it is possible. They have generously shared their wisdom and knowledge, the wisdom and knowledge that until now has been accessible to a select number of people lucky enough to work with these doctors. These doctors are not alone. There are other doctors around the country who have come up with brilliant PREVENTATIVE GAME PLANS to keep their patients healthy enough so they don't need to go to the ER or hospital. Following the recommendations of these brilliant doctors, I as a pediatrician, in one week, was able to keep 4 very sick adult patients out of the ER and hospital (and these were not even my patients).

Many will say, “well these treatments have not been proven.” This is entirely true. There are no studies to back any of the claims made by these doctors or myself. Despite this, there is basic science literature which suggests benefit. Sadly, we have no time to wait. Considering we are facing a wave of our community members dying or landing in an ICU, perhaps this is the time we take action. We must do everything possible to keep people healthy and out of the hospitals and ICUs to allow these brave healthcare professionals to have the ability to care for those who become truly ill. My family and community have taken every step to be prepared, and so should you. Below are the steps you can take to go on an offensive against this virus. Be prepared. Make sure all your loved ones are prepared. Improve everyone’s odds of staying healthy and NOT ending up in the hospital or ICU! Please share this message with as many people as you can!

Sincerely,  
Pejman Katiraei, DO (Dr. K)

**SIGNS AND SYMPTOMS:** In 50% of patients, COVID-19 shows up with vomiting, diarrhea and/or nausea. Others develop headaches, sore throat, chest pain and fevers. Some first develop vomiting and diarrhea, and then 2-4 days later start developing a cough and sometimes shortness of breath (again this is most in the adults). While runny nose/congestion is possible, it is less likely. If you have vomiting, diarrhea or abdominal pain, you may wish to start treatment even at this early stage. **We need to become alarmed if anyone is developing a progressively worsening cough or shortness of breath. Also become alarmed if someone is developing severe gastrointestinal problems, including severe abdominal pain or vomiting. Take action! Do not wait for things to get worse.**

**TALKING TO YOUR DOCTOR:** All doctors are overstretched and overwhelmed. Many people have had been unable to reach their doctor on an emergent/urgent basis and have been left stranded when they are really sick. BE PROACTIVE! Call your doctor and develop a game plan with them ahead of time. Together, determine if it is appropriate to have them call in prescriptions for you, especially for medications like Azithromycin or Hydroxychloroquine. Discuss the use of supplements and other medications in advance. With the help of your doctor, you can be prepared to go on the offensive at a moment’s notice. Make sure all your family members, neighbors and loved ones do the same. Have everyone around also have a game plan.

***NSAIDS (Motrin, Advil, Aleve, Aspirin, Midol, Mobil, Celebrex)***

There is a possible chance that NSAIDS CAN INCREASE ONE’S RISK OF COMPLICATIONS from this virus.

<https://www.bmj.com/content/368/bmj.m1086.full>

The FDA is still investigating these claims at this time, but until more is known, PLEASE AVOID NSAIDS. We also know that NSAIDS damage the gastrointestinal lining, and at least 50% of all individuals who get COVID-19 develop intestinal problems. Systemic immunity is rooted in gut immunity. To say the least, repeated doses of NSAIDS harm gut integrity and immunity. Tylenol and acetaminophen-based medications are a better alternative. Tylenol does use up glutathione, so you may wish to supplement with NAC or glutathione per the recommendations below. If you have family members who are on aspirin or other long-term NSAID medications (Celebrex, etc.), please have them speak with their physician to see what they advise in regards to these medications during this outbreak. Do NOT stop these medications without consulting with your physician.

**SMOKING:** Please, please, please make sure any and all members of your community **are not vaping or smoking at this time.** Just like with NSAIDS, it appears that smoking or vaping may significantly increase one's risk of severe complication from this virus. Make sure the lungs are protected. If you have a smoker who cannot/refuses to quit, suggest that they have a bottle of glutathione handy just in case...

**PREDNISONE AND OTHER STEROIDS:**

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

The CDC says, "corticosteroids should be avoided unless indicated for other reasons, such as management of chronic obstructive pulmonary disease exacerbation or septic shock." Most urgent cares are prescribing prednisone without giving it a second thought. With COVID-19, this generic practice may actually be causing more harm than we realize. The CDC reports that with the prior coronavirus (SARS) and regular influenza, "patients with MERS-CoV or influenza who were given corticosteroids were more likely to have prolonged viral replication, receive mechanical ventilation, **and have higher mortality.**" Talk to your doctor ahead of time, and make sure you have a game plan in place on exactly when, if ever, you would need to take prednisone. Avoid this medication unless your doctor understands your case and feels it is important for you to take this. This is especially true if you have diabetes or high blood pressure. Now, please be aware that ICUs are using steroids with great benefit in cases of shock and other dire situations. Hopefully, none of us have to end up in the ICU!

## GOING ON THE OFFENSIVE – HAVING A GAME PLAN

- 1) **BE READY! HAVE YOUR GAME PLAN IN PLACE.** Be quick to move and aggressively start treating the illness as soon as there are signs. You **DO NOT WANT TO WAIT** for this illness to become serious. Once the inflammatory response has gotten out of control (ICU/Ventilator...), it becomes far more difficult to slow it down. At the same time, part of our offense is also a strong defense. In this posting, I share some of the wisdom of my colleague and dear friend, Dr Elroy Vojdani MD. He is one of the smartest integrative functional medicine doctors I know. His father, Dr. Aristo Vojdani, is the father of integrative immunology. He has created many of the tests that are widely used in integrative medicine today. **Dr. V has a lot of smart things to say about how you can build your defenses....**

<https://www.facebook.com/regeneramedical/videos/facebook-live-to-discuss-covid-19-and-to-answer-all-of-your-questions/209570586917818/>

- 2) **Intermittent fasting, A clean diet and Mindfulness** – To have a healthy immune system, Dr. V suggests intermittent fasting. He absolutely believes that we must continue eating a very healthy diet and reduce/eliminate sugar and processed foods. Please refer to prior postings for a detailed discussion on what is considered an optimal diet (Wahls protocol diet...).

Mindfulness and maintaining a calm mind will also help. Chronic stress taxes and cripples the immune system. It causes you to develop a leaky gut!!!!

<https://www.ncbi.nlm.nih.gov/pubmed/21734786>

<https://gut.bmj.com/content/63/8/1293.short>

It has been widely proven that the intestinal tract has a profound influence on "innate immunity" (the part of the immune system responsible for handling this virus). Compromised gut integrity becomes one more reason why the innate immune system acts in a less than optimal fashion in the

face of this virus. The most amazing part about stress is that it ALSO CHANGES THE BACTERIA WITHIN THE GUT. Oh yes! Studies have demonstrated that chronic stress reduces counts of the “good” lactobacillus and bifidobacteria, WHILE simultaneously increasing the counts of the “bad,” pro-inflammatory bacteria like e. coli and clostridium (does the name C Difficile ring a bell?). Even fungus like candida start growing in numbers! More so, in the face of stress compounds the “bad” bacteria start misbehaving and attempt to “translocate” or penetrate the gut lining.

<http://www.ncbi.nlm.nih.gov/pubmed/10079527>

<http://www.ncbi.nlm.nih.gov/pubmed/11029429>

<http://www.ncbi.nlm.nih.gov/pubmed/12412628>

<https://benthamopen.com/contents/pdf/TOASJ/TOASJ-6-57.pdf>

<http://www.ncbi.nlm.nih.gov/pubmed/11700578>

Science has widely proven that these negative changes to the gut microbiome can trigger an inflammatory response and negatively influence how the cytokines behave within your body.

Perhaps there is more to this connection than we realize.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6020735/>

***All of this is to say, that chronic stress and fear are not helpful in protecting against the virus.*** Fear is not protective. Being aware, concerned and careful does not mean you have to be afraid. If nothing else, for the sake of our children, we must all maintain a state of calm, peace and push out fear. One of my teachers once use to say, “Life is like a grinding stone. You can choose to let it polish you, or it can grind you down.”

Victor Frankl taught us, “Between stimulus and response there is a space. In that space is our power to choose our response. In our response lies our growth and our freedom.” In the future, our children will likely face challenges even greater than what we are facing today. Perhaps this is a great time for us to teach our children about the power of choice. Perhaps we can teach them about safety and responsibility, while also teaching them how to be courageous and fearless even when confronted with the scary and unknown. Let’s teach them about community, and how we can work together to keep our neighbors healthy and safe.

The experience we all are in is simply awful. Loved ones, people we know are coming in harm’s way. There is a chance that this harm can come to us and our family. Our country (and the world) are in a state of crisis, on every level. There is nothing light to be made about this, and this is why we must all be fully focused, clear and calm. Your ability to help yourself, your family and your neighbors is significantly higher when you remain calm and highly focused. Do not give your mental energy away to fear. We can all get through this, together. There are some who cannot handle this virus, and this is why all of us need to be in a place to help them if needed. We must fight to keep everyone healthy, and do whatever we can to keep people out of the hospitals, so that the hospitals can handle the worst cases that absolutely need that incredible degree of critical care. If the number of people who become very sick drops (through social distancing, staying at home AND PREVENTATIVE CARE TO OPTIMIZE IMMUNITY), then we can get through this crisis safely and effectively. Sadly, we live in a country where citizens are taught that nutrition, lifestyle or natural products and supplements are irrelevant. Preventative health is not part of our societal vocabulary, and perhaps it is time this concept is adopted widely through every community. We are facing a very challenging time, but both Dr. Vojdani and I are very hopeful we can get through this tough time together, safely.

**3) Colloidal silver OR Essential oils** – Dr. V suggests simple and safe practices to reduce exposure risk to this virus. He points out the large body of information regarding colloidal silver’s ability to eliminate viruses. Essential oils like lavender, eucalyptus, thyme or peppermint also have unique anti-viral properties AND are safe for inhalation. Clove, cinnamon and tea tree are other essential oils with good anti-viral properties, but they are harsh on the airways and may irritate them. It may be of interest to note that silver and various oils also have interesting anti-bacterial properties which can theoretically reduce the risk of a secondary infection. I am a huge fan of essential oils, because many of them, including lavender, eucalyptus and thyme also have anti-inflammatory and anti-oxidant properties, which can help to protect the airways in time of infection. Spraying colloidal silver into the nostrils and/or inhaling essential oils through the nostrils a few times a day can theoretically be helpful. Obviously, we have no data on how well these practices work for COVID-19. Considering there is little or no chance of harm, I don’t see a reason why one would not want to adopt one of these practices. Our store has essential oil blends if you are interested.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6264685/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6723559/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2818642/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3826769/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6612361/pdf/molecules-24-02130.pdf>

<https://store.wholistickids.com/pages/essential-oil-and-research>

<https://www.ncbi.nlm.nih.gov/pubmed/23017226>

<https://store.wholistickids.com/collections/all>

**4) Awesome mucosal immunity** – Dr. Vojdani strongly encourages us all to do everything possible to have a healthy mucosal lining and immunity. Our mucosa is the tissue that lines our nose, throat, airways and lungs. It is literally the front line of attack between you and COVID-19. Our mucosal lining can either quickly identify this virus and eliminate it with little fighting (those who develop few symptoms after an infection) OR the virus can sneak right past our immune system and cause a royal disaster, which is when people end up in the ICU. The healthier the tissue and the immunity behind it, the better off we are in fighting this virus. One trick he recommends is a modest amounts of vitamin A (10,000IU) along with vitamin D3 (5,000IU) each day. While we are so focused on the lungs, Dr. V reminds us that systemic immunity starts in the gut. It is interesting to see how 50% of patients with COVID-19 have severe digestive challenges. We know the prior Coronaviruse (SARS) infected the intestinal tract AND caused massive inflammation within the gut.

<https://www.ncbi.nlm.nih.gov/pubmed/15654797> As noted above, the gut bacteria and global intestinal functioning may be playing a far larger role in the disease process of COVID-19 than we realize. To mitigate our risk of a cytokine storm, you should keep your gut as healthy as possible.

Push out stress and fear, and replace them with light, love and calm. We can also protect the gut with high dose probiotics (>50 billion CFU of multiple strains). I am a huge fan of prebiotics, particularly Biotagen from Klaire labs. But there are many prebiotics that can also be found in most health food stores and on various online sites.

<https://www.pureformulas.com/category/prebiotics.html> Dr. Vojdani also recommends clostrum derived immunoglobulins (IgG)... <https://www.pureformulas.com/search?Ntt=igg>. We do carry these supplements at the office if you wish. In past cases of gastrointestinal infections, quite a few families also found our diarrhea mix helpful. It may have anti-inflammatory properties.

<https://store.wholistickids.com/products/diarrhea-mix>

5) **Zinc** – Zinc is important for a healthy immune response and acts as an anti-inflammatory. It turns out that zinc is the mineral that is needed for our cells to stop this virus from taking over. Zinc, in ionic form, is one suggested mechanism through which hydroxychloroquine may stop and kill this virus. Make sure your body has enough zinc on board to use if you get sick.

- a. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5748737/>
- b. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5490603/>
- c. <https://www.ncbi.nlm.nih.gov/pubmed/21079686>
- d. <https://www.youtube.com/watch?v=U7F1cnWup9M&feature=youtu.be&t=91&fbclid=IwAR0OgpT13nqROHxmWZ-GXoRsZuH8TlOLZ63jawRGqOXPBghNAYbxKD831Y8>
- e. Dosing: Please make sure everyone you know is taking some amount of zinc. Preventative adult dosing is 10-25mg a day. If an adult is not taking this and starts getting sick, the adult docs are suggesting 25mg twice a day.

6) **Glutathione** - Imagine if COVID-19 is an arsonist. And in some, this arsonist manages to light multiple fires that then merge to create one massive forest fire (cytokine storm). This forest fire is ultimately the reason why some poor individuals end up developing this severe condition called acute respiratory distress syndrome (ARDS) which prevents them from breathing. Why do some poor individuals end with a raging forest fire and not others? We don't entirely understand all the reasons, but perhaps part of the equation is that some individuals have an immune system with a lot of dry tinder (poor gut health, high sugar/poor diets, etc.) and a poor/weak fire extinguishing system. In such a person, when COVID-19 sets a fire, a little fire suddenly explodes into a massive fire. In fact, this virus has a match that actually sets off multiple fires at the same time. Consider each fire a "cytokine pathway," and multiple cytokines are involved in spreading the fire of COVID-19, the master arsonist. Little fires are good. They fight infection. They help the body heal. It is only a problem when the scales tip, and the little fires merge to create one massive forest fire. The problem is that we do not know who are the people who have a lot of tinder and/or a poor fire extinguishing system.

- a. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30628-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30628-0/fulltext)
- b. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7104082/>

This many fires is a big no Bueno, especially when you have tinder all over the place ready to catch fire. **So what does glutathione help do? It acts as a fire extinguisher. It helps decrease TNF-alpha, IL-8, IL-6, amongst many other pro-inflammatory pathways.**

- a) <https://onlinelibrary.wiley.com/doi/abs/10.1177/014860719902300101>

The most dangerous complication from COVID-19 is acute respiratory distress syndrome (ARDS), which is why people end up on a respiratory and are unable to breath. Studies have found that individuals with ARDS have lower levels of glutathione in their lungs than others.

- a) <https://www.ncbi.nlm.nih.gov/pubmed/1935300>
- b) <https://www.ncbi.nlm.nih.gov/pubmed/8239150>

The mechanisms of glutathione and how it works to protect the lungs is quite complicated. For those who are curious, the following articles provide a nice summary. In short, glutathione plays a critical role in balancing the immune response within the lungs and protecting the lungs against excess inflammation.

- a) <https://erj.ersjournals.com/content/erj/16/3/534.full.pdf>
- b) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3048347/pdf/ijgm-4-105.pdf>

Of course, this entire discussion is theoretical, and we don't have studies to definitely conclude this. Anecdotally, there many reports, including the few people I have directly worked with, that suggest glutathione is helpful. What should also be of interest are the studies that suggest that glutathione may also serve as an anti-viral.

- a. <https://www.ncbi.nlm.nih.gov/pubmed/9888410>
- b. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5626850/pdf/fimmu-08-01239.pdf>
- c. <https://www.ncbi.nlm.nih.gov/pubmed/12654482>

It may be a good idea for you to have a bottle of glutathione at home ready to use when you need it. Chances are, one bottle is enough for a large family or amongst many friends. When purchasing, please make sure you are purchasing a liposomal glutathione. Here are some good glutathione products:

- i. <https://www.amazon.com/Designs-Health-Liposomal-Glutathione-Peppermint/dp/B073DPB2HK>
- ii. <https://www.pureformulas.com/liposomal-glutathione-17-fl-oz-50-ml-by-designs-for-health.html>
- iii. <https://www.pureformulas.com/liposomal-glutathione-60-softgel-capsules-by-pure-encapsulations.html>
- iv. <https://www.pureformulas.com/liposomal-glutathione-with-lemon-mint-17-fl-oz-50-ml-by-quicksilver.html>
- v. <https://www.pureformulas.com/liposomal-glutathione-liquid-17-fl-oz-50-ml-by-pure-encapsulations.html>

d. **DOSING:**

- i. 3-6 years: 50mg once a day
- ii. 6-10 years: 50mg twice a day
- iii. 10-16 years: 50mg three times a day
- iv. Adults: 200mg 2-3 times a day

**RISKS:** Cost. Glutathione is expensive, but generally a very safe supplement, especially when used short-term (1-2 weeks)! Those with diabetes or high blood pressure on rare occasions find a decrease in blood pressure or blood sugar, so these need to be monitored with high-dose glutathione administration. Do not use if pregnant.

**7) N-Acetyl-Cysteine (NAC)** – Glutathione can be expensive or sometimes hard to find. NAC is the compound used by the body to build glutathione, and is widely known to increase glutathione levels. The nice thing is that NAC is dirt cheap (\$8-15/bottle) and fairly easy to find. While we don't have direct studies on this supplement, NAC can be taken preventatively to boost glutathione levels and protect the body against the damage caused by COVID-19. NAC can ALSO BE TAKEN ALONG WITH GLUTATHIONE TO FURTHER ENHANCE ITS EFFECT. There is study exploring the benefits of nebulized NAC + heparin. Please check with your physician on if NAC is right for you. Adults can take 500mg once a day.

- c. NAC can easily be found in most health food stores and websites like Amazon, Pureformulas.com, lherb.com, etc.
- d. This is fine to use if you are pregnant, but please check with your doctor.

**8) Vitamin C** - We know that vitamin C can recycle/boost glutathione levels and act as a mild anti-inflammatory. Vitamin C MAY have some anti-viral properties. Most of the adult docs I spoke to are using various doses of vitamin C from 1,000mg twice a day to 3,000mg 2-3 times a day. This higher dose should NOT be used in elderly or any person with compromised kidney function. Please have them speak with their physician.

- a. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6798581/>
- b. <https://academic.oup.com/jac/article/52/6/1049/731701>

**9) Azithromycin (Z-pak)** – I am normally against the overuse of antibiotics, but right now we must consider every tool at our disposal if any loved person around us falls ill. My adult colleagues have been using Azithromycin at the onset of any serious coughing or respiratory difficulty. They believe it is helpful. Studies outlining the possible benefits of this medication are below. All adults, especially those at highest risk, should speak with their doctor about having a prescription for

Azithromycin available if they were to ever need it. Preventative dosing is not a good idea. Azithromycin can cause a dangerous arrhythmia in those who are susceptible, so please check with your physician. Below is the preliminary study and clinical recommendations that have been published. You see that these include hydroxychloroquine.

- a. <https://www.thelancet.com/action/showPdf?pii=S2213-2600%2820%2930071-0>
- b. <https://www.sciencedirect.com/science/article/pii/S0924857920300996#bib0022>
- c. While we don't have exact data on the COVID-19, but from the data that is available on other viruses, we believe azithromycin may have anti-viral properties.
  - i. <https://erj.ersjournals.com/content/erj/45/2/428.full.pdf>
  - ii. <https://www.pnas.org/content/pnas/113/50/14408.full.pdf>
- d. We know that this antibiotic can prevent secondary bacterial infections and pneumonias. Azithromycin also acts as an anti-inflammatory.
  - i. <https://www.ncbi.nlm.nih.gov/pubmed/15590715>
- e. The dosing is standard Z-pak dosing 500mg the first day, then 250mg for 4 days or as prescribed by the prescribing physician.

**10) Hydroxychloroquine (Plaquenil)** – At this time, there is a lot of debate about this medication. There are several studies pending on the true benefits of this medication. This malaria medication, as noted above, is appearing helpful in the treatment of this virus. In hospitalized patients, the FDA has given emergency approval for it to be used. Again, unfortunately, we are waiting for people to become sick enough to be in the hospital to use this medication. There are many physicians, including those that I spoke to, who are using this medication to keep people out of the hospital. These doctors are reporting positive benefits.

[https://www.jstage.jst.go.jp/article/bst/advpub/0/advpub\\_2020.01047/\\_pdf/-char/en](https://www.jstage.jst.go.jp/article/bst/advpub/0/advpub_2020.01047/_pdf/-char/en)

[http://www.natap.org/2020/newsUpdates/s41422-020-0282-0.pdf?fbclid=IwAR29HlAXb3loahC9M13R6v7t3ijsonW3mMNGr0anpp898y50iXw0Cel\\_3kg](http://www.natap.org/2020/newsUpdates/s41422-020-0282-0.pdf?fbclid=IwAR29HlAXb3loahC9M13R6v7t3ijsonW3mMNGr0anpp898y50iXw0Cel_3kg)

From what we understand, this medication alters certain cellular pathways which prevent the virus from replicating. Like Azithromycin, **it can cause a dangerous arrhythmia**. Only your doctor can determine if this medication is appropriate for you to take. This medication may be very helpful to start if you are having a severe cough or shortness of breath. Pharmacies are in short supply of this medication, so please call ahead and check on supply if your doctor feels this is a good fit for you.

- a. **There is debate on if this combination really works or not in healthy individuals who have gotten the virus.** <https://time.com/5808894/hydroxychloroquine-coronavirus/> One can definitely argue that we need to understand the risks vs benefits. And I agree, **this medication should never be our first-line treatment**. But if you are having significant difficulty breathing and are likely going to end up in the ER or ICU within the next 1-2 days, then perhaps the benefits (small or large) may outweigh the risk of ending up on a ventilator. And this is why, I do believe each person needs to have a personalized game plan of at what point, given the possible risks, would it be appropriate to consider something like this medication. To help your doctor understand the possible risk, and give sound guidance, you may wish to examine this posting from the American Academy of Cardiology.

<https://www.acc.org/latest-in-cardiology/articles/2020/03/27/14/00/ventricular-arrhythmia-risk-due-to-hydroxychloroquine-azithromycin-treatment-for-covid-19>

**11) Additional Nutrients and Compounds** – below is a well written database of foods, other compounds and natural products that may be useful in supporting someone through this virus.

- a. <https://theana.org/COVID-19>

**12) Testing** – Dr. Vojdani has created a test to help one determine if they are or were infected by COVID-19. Unlike the hospital tests which check for the RNA of the virus, this test checks for antibodies against the virus. Obviously, this test has limitations, but can be a great alternative to the current short supply of testing options otherwise. <https://rootmd.com/covid-19> This is the test I had for myself and my parents. There are other companies out there also offering testing for COVID-19 with similar IgG/IgM technology. I do trust Dr. V and suspect his degree of accuracy will be above average.

This virus has created the greatest challenge we have faced within our lifetime. We need to be careful, aware and responsible. At the same time, we must let go of fear. Use this opportunity to teach your children invaluable lessons that they can then carry with them for the rest of their lives. We must remain calm and focused. It is time for each and every one of us to build our defenses and great ready to go on the offensive. It is time we move the frontlines and do what we can to try to minimize the number of people who are ending up in the hospital, so that those valuable resources are available for the very very sick. I hope we can use the power of our community to change our current circumstances and protect those vulnerable around us. I want all of us, and our loved ones and neighbors to get through this in health, together.

Sincerely,  
Pejman Katiraei DO

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.