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DR. TAMI'S

THE CORONAVIRUS SURVIVAL THRIVING GUIDE

I want to share with you a few things that you may have not heard regarding the Coronavirus and ways to protect yourself and loved ones. I also will share how to THRIVE, not survive, the times of social distancing, shelter at home and other major changes that have occurred in our lives.

I am an MD that is board certified in Integrative Naturopathic Medicine. What this means is, though I practice like a Naturopath, I can not turn off my MD brain in looking at the science and evidence before making any recommendations.

COVID-19

If you have ever had a cold in your life you have been infected with Coronavirus. The reason for the attention on COVID-19 is that it is a new type of Coronavirus we have never seen before. That means we do not have any medication, vaccines and our bodies do not have the antibodies to fight this if we become infected.

The coronavirus is named due to being shaped like a crown. The pointy bits attach to cells in the respiratory system through a receptor called ACE2 (angio-tensin-converting enzyme 2). COVID-19 is then able to enter our respiratory cells, make copies of itself which then spill out and spread to new cells.

COVID-19 is not a living organism. It has no DNA, it can not replicate itself without our cells and dies if left on its own in a matter of hours to days, depending on the surface it is on. The Coronavirus has an outer layer called a membrane made of fat. It does not have wings, legs or feet so it can not travel. It must be escorted into our bodies by us. This is important and empowering.

IS COVID-19 DEADLY?

The virus itself is not what is causing severe illness and death. It is our immune system causing a "cytokine storm" that is behind hospitalizations, ventilators and death. A cytokine storm is your immune system going into super overdrive and not able to turn off. Our immune system goes to work any time a foreign substance is detected. The first line of defense are B cells. B cells make antibodies specific to the invader to attack including a memory cell in case the same invader comes back again. The other immune cell is the T cell that helps in the war.

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PREVENTION AND PROTECTION

Since COVID-19 can not enter our bodies without our help there is a lot we can do to protect ourselves.

<u>Stem Cell Therapy:</u> The FDA recently approved a study using Stem Cells from your own fat as a Preventative treatment against COVID-19. That means you can get a Stem Cell treatment in the summer or early fall as your personalized "vaccine" against getting sick with COVID-19. The reason for this is because stem cell therapy treats the lungs first and has long term anti-inflammatory and immune modulating properties.

<u>Masks:</u> The virus can stay airborne up to three hours. This is the reason it is believed that masks can provide protection. You do not know who was occupying the space you are walking through 2 hours ago.

Hand Washing with SOAP: Remember that COVID-19 has an outer layer called a membrane made of fat. Soap can literally punch holes into this membrane like a wrecking ball and destroy the virus. In order for this to occur you need to wash with soap at least 2 minutes. The soap needs time to make its way into all the membranes. Also, the virus is very small. It can hide in the creases of your hands. Every area of your hands must be washed with soap.

What about your fruits and vegetables? You should assume viral particles could be on them. Fill your sink with warm water and soap and wash them! Rinse off the soap and enjoy.

• Hand sanitizers with an alcohol content of 60% or higher can also do this but soap and water is the best first option.

<u>Stop touching your Face:</u> Did you know that on average we touch our faces 23 times an hour? Forty-four percent of those touches are to the mouth, nose and eyes which are gateways to our respiratory tree and infection. If a mask will help prevent you from touching your face then please wear any kind of mask you can find. Since it is much harder to stop touching our faces than you may realize, you must wash your hands repeatedly.

Immune Function: Our immune system is designed to handle viral infections. However, if you have a condition, diagnosis, are elderly, take immune suppressing medication, are obese or live in fear and stress – you are at higher risk as your immune function is impaired.

Immune Boosting: The truth is that most of us will be fine if we get infected with COVID-19. However, everyone should do everything they can to protect themselves and help their immune system. Here are some tips to help boost your immune function

<u>Sleep:</u> a lack of sleep has a negative impact on your immune function. You should be getting a minimum of 7 hours per night.

<u>Vitamin C:</u> Vitamin C has been shown in research to help your body fight viral infections (1). Take 4000-6000 mg in divided doses throughout the day. If you can get a Vitamin C IV, even better!

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<u>Vitamin D:</u> Your blood level of vitamin D should be 6-100. Many of my patients take 5000-10,000 IU daily in the winter to achieve this. Vitamin D acts as an immune modulator prevention excessive cytokines; stimulates anti-microbial peptides in our immune fighting cells lining the respiratory tract thus protecting the lung from infection.(2)

Selenium: Selenium enhances the immune system's ability to fight viral and bacterial infections. (3). Of note, a handful of brazil nuts daily will provide you with enough selenium

TREATMENT

Though there is no FDA approved or agreed upon treatment for COVID-19, here are some options that are showing promise and are being researched

- 1. Stem Cells: There are currently 17 approved clinical trials studying the effectiveness of stem cells on COVID-19 due to the positive results seen so far. Stem Cells have two powerful properties that make this an understandably good option to fight this virus. First, stem cells are very anti-inflammatory. When stem cells are injected via IV and/or nebulized, they go straight to the lungs to calm the inflammation that would be present in the case of a COVID-19 infection. Second, mesenchymal stem cells are immune modulating. This means that act with our immune system to correct and balance it. This could potentially help calm the cytokine storm that is the cause of the severe infections and death with COVID-19. (5)(6)
- 2. Hydroxychloroquine or chloroquine are medications used to treat autoimmune diseases and to prevent or treat malaria. This has been shown to be effective in treating some patients with COVID-19. There are potentially lethal side effects such as heart arrhythmias so this should only be used when prescribed by a doctor. Combining this with the antibiotic Zithromax is sometime used and has not been studied in clinical trials yet.
- **3. Convalescent plasma therapy:** This is taking the blood of a recovered patient, extracting the antibodies and using them to treat someone who is sick
- **4. Vaccines:** this will (should) take 12-18 months to develop with human trials for safety and efficacy. The virus is already mutating so a vaccine may be ineffective by the time it is ready
- **5. Meditation:** This is likely one of the most powerful tools to increase your immune function. Dr. Joe Dispenza has shown in studies that levels of IgM (the early immune cells that are produced in our bodies) increase over 30% after one meditation. Additionally, we know that the hormone of stress called cortisol is therapeutically the same as the medication we give to transplant patients to turn their immune system OFF so they do not reject a foreign organ.
- **6. Meditation is a practice, it is a discipline and no one is good at it at first.** It WILL boost your immune function, it WILL decrease the hormones of stress. What do you have to lose to try 20 minutes of meditation for 30 days (except maybe leaving behind stress and anxiety). I double dog dare you to try it.

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MEDITATION TIPS:

Check out these links for more useful information

https://www.youtube.com/user/drjoedispenza

https://www.drweil.com/health-wellness/body-mind-spirit/stress-anxiety/breathing-three-exercises/

https://www.headspace.com/meditation/meditation-for-beginners

RESEARCH CITATIONS:

- 1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5707683/
- 2. https://www.ncbi.nih.gov/pubmed/24793092
- 3. https://www.ncbi.nlm.nih.gov/m/pubmed/16959053
- 4. https://www.ncbi.nlm.gov/pmc/articles/PMC4288282
- 5. https://doi.org/10.1371/journal.pone.0069299
- 6. Am J Respir Crit Care Med. 2018 Janl; 197(1):104-116