WHAT IS IT?

COVID-19 is an upper and lower respiratory tract infection. Over 80% of people seem to have only a mild illness once they have been infected, much like a common cold (not even on flu-status). But this can also be deadly for those with a suppressed immune system and in the elderly (probably for the same reason – and in much the same way a flu or pneumonia is dangerous in those populations). Children seem to be experiencing COVID-19 as a cold, if they experience symptoms at all. Seniors have a much greater risk of this becoming pneumonia. Coronaviruses are a large family of viruses that cause respiratory illnesses. There are no specific treatments for illnesses caused by human coronaviruses. Most people with common human coronavirus illnesses will recover on their own. The morbidity rate has now been increased to 3.4% and the infectious rate to 2.3% (every 1 person carrying COVID-19 will infect 2.3 more people). I have read some reports that just like with a "flu season" there is a parabolic curve to the rate of infection, to the point where China no longer has any new infections, and South Korea and Italy are over the "hump". It's somewhat comforting to remember that as with all things, "this too, shall pass".

WHY THE PRECAUTIONS?

All the precautions being taken lately (closing of the NHL and NBA, LU Cambrian, Schools, etc.) is simply an effort to reduce transmission of the illness as the fewer people that are infected, means the least possible exposure to those vulnerable populations.

There is no reason to feel helpless or hopeless when a new virus is looming out there. There will always be something new coming in future years as well. The human species has prevailed in the past and will continue to do so. Our immune systems are amazingly designed, and they interact with all of the systems of the body, particularly the nervous system and the digestive tract (the gut microbiome) - **as in the nervous system and the gut microbiome control the immune system**!

RECOMMENDATIONS

All of my recommendations are habits that I personally follow now or have in the past and are valid for your health all the time, not just in times of fearful pandemics. Doing something is better than nothing – so don't feel obliged to do everything in this list. There is no cure for COVID-19 presently and a vaccine is at least 18 months away. Yet thousands of people already have beaten it with their own immune systems in China, Iran and Italy! I am suggesting the following to help you be the successful 'victim'. Unless you are part of a vulnerable population, you are not likely to have any problems with this illness.

Your main strategy should be to prevent illness in the first place, or to support your body if you were to get infected.

- 1. Don't get exposed. Keep distances 3-6 ft and avoid high density populations.
- 2. Maintain a healthy Innate Immune System. We are *constantly* exposed to pathogens, with which our innate immune system makes quick work. Staph, MRSA, E.Coli, and I'm sure MANY other "bugs" are in our direct environments ALL THE TIME, and we don't get sick from them as

our innate immune system likes to keep us alive and well. So, as you can imagine, maintaining a healthy innate immune system is a good idea (more on that below).

So, HOW do we do this?

#1) Structural Care

Chiropractic, Massage, Physiotherapy

Recent research revealed that adjusting C1, C2 and C3 has a very beneficial and supportive effect on the immune system. T7 is the nerve to the thymus gland where killer white blood cells are produced. These are the cells needed to find and kill new and dangerous microbiological agents. You will often find me adjusting T7 if a patient is sick. Of course, I check for C1, C2 and C3 subluxations on every visit. For every patient. Always.

Physiotherapists and Massage therapists are also great at helping the body move better, improving the function of the nervous system and the flow of lymph throughout the body.

Passive treatments in general will typically stimulate the parasympathetic nervous system, helping with healing and recovery (not just from illness, but from all stressors).

#2) Hygiene.

HAND WASHING: Yes, please wash your hands with regular soap and water. This should be a 20 second event with the scrubbing of the palms, back of hands, in-between fingers, nails and up past the wrists (sing the ABC's song to yourself as a timer). Rinse and towel off before touching the tap to close it. Use you towel to close the tap, touch doorknobs, light switches, etc.

HAND SANITIZERS?: There should not be an overuse of **anti-bacterial products** like hand sanitizer products. Yes, when no soap and water are available and hand cleaning is necessary, please use a hand sanitizer (again, clean all surfaces of the hand as suggested in hand washing). Overuse of hand sanitizers kills the good microbes on your hands and may the allow the bad ones to proliferate. The use of these products is associated with reinfections occurring within a household. Included at the end of this report is a recipe for homemade hand sanitizer; this is a hard product to find right now.

WIPE SURFACES: Avoid unnecessary personal contact with people at times of epidemics or pandemics. Keep your keyboard and your cellphone surfaces sanitized. We clean the waiting room chairs, adjusting tables, doorknobs and light switches frequently all day long. Think about your own work and home environments and do so as well.

MASKS?: Do not rely on **masks**. Most masks do not filter out viruses. You would need at least four N95 respirators a day to be effective. Masks are more useful when the infected person is wearing it rather than the healthy person. Getting fresh air outside is necessary for good health. Do not cover up with a mask when outdoors. If you do wear a mask, do not remove it with your bare hands or you will transfer all the microbes that you are avoiding to your hands and then possibly to your face. Use a glove when you remove your mask.

Keep your hands away from your face!

Wear cloth gloves when out and about. Purchase a few pairs of inexpensive gloves which can be laundered. Wear a single pair for only one day and wash later. Use them when shopping, touching handrails, doorknobs, shaking hands, etc. OF course, if you prefer, you can wear rubber gloves.

Wash your clothes, towels and bedding often and thoroughly. Microbes can live in these materials and re-infect you or your partner or family.

Mouth hygiene: The use of antibacterial mouthwashes destroys the natural protective microbes in your mouth. Try to avoid those products. Oil pulling with coconut or sesame oil are better and safer cleaning methods to achieve oral health.

#3) Supplements and natural products.

Here are a few essential supplements and natural products:

Vitamin D3, Vitamin C, Probiotics, Oil of Oregano, Echinacea, Immucore, Essential Defence

Vitamin D3. This very inexpensive vitamin has been shown to be more effective than the flu shot at preventing the flu. That's a big claim but substantiated by research. Vitamin D3 is needed for all cellular functions and for the utilization of calcium in the body. More recent research supports the benefits of vitamin D3 for the immune system, cancer prevention and for thyroid gland support. How much should you take? Preferably, get your blood level tested by your medical doctor. We are all different. A general rule of thumb is 500IU per 40lbs of bodyweight. I prefer the liquid oil product as I find it easier to take eight drops rather than eight separate pills (Kristin, Gavin and I take the <u>Metagenics mint</u> flavored oil – Gavin takes 15000IU or so, Kristin and are closer to 3000-5000IU).

Vitamin C. Most people do not realize that we, as humans, cannot synthesize Vitamin C ourselves. Neither can primates or the guinea pig. All other animals can make their own from their food sources. We need Vitamin C for cell healing. A lack of vitamin C has been long known to increase susceptibility to viruses. In fact, studies have shown that vitamin C deficiency is related to the increased risk and severity of influenza infections. I've ordered <u>Metagenics Vitamin C powder</u> and pills (as we didn't have any on hand), but you could also look for Ester-C products. Take about 1000mg a day for prevention and at least 3000mg a day if you are ill.

<u>Take a probiotic</u>. Always and daily. At least 60% of your immune system surrounds your gut and is influenced by your gut. Many studies support the use of probiotics for many conditions, and always for the immune system. Take probiotics at a different time from antimicrobial products like oil of oregano.

Oil of Oregano, see <u>https://www.healthline.com/health/oregano-oil-for-cold</u>: "Oregano oil was more effective against respiratory viruses, such as flu viruses." For prevention, take two drops every morning. If you are feeling sick, try taking ten drops every two hours. You should defeat whatever you are fighting within ~24 hours this way. You can take oregano oil by capsule as well (if you dislike the flavor or if it bothers your stomach). I do not care that it briefly tastes strong and spicy. It has been proven effective and that is why I take it.

A good <u>multiple vitamin and mineral product</u> will fill in all of the nutrients that your diet may be deficient in. All of these nutrients help each cell to function better.

Echinacea. Echinacea has long been used to boost the immune system in its early stages of fighting an infection. I like the <u>Metagenics product Echinacea Synergy</u> as I know that I can trust that it is pure and effective, but you may buy any one from the pharmacy or health food store. Do not use Echinacea on a regular basis. I only take it if I am in the very early stages of an illness. As soon as you know that you are sick, take two tablets every two hours until you are better. If you are not better within 24 hours, you have missed the window of intervention; stop taking the Echinacea. Move onto oil of oregano or other flu treatments. Echinacea is not as much a treatment as it is an intervention product.

ImmuCore by Metagenics. This is a prevention tool to be taken three times a day during cold and flu season. I often recommend this to teachers as they are exposed to so many children who are great carriers of new and dangerous microbes. Mushrooms have proven to be effective in stimulating the immune system. The notable ones here are: Reishi, Shiitake, Turkey Tail Mushroom, Oyster Mushroom and Cordyceps. It is designed to be taken so that one does not get sick, especially during flu season. I have already started on this one. You could also take products from Four Sigmatic or Host Defense.

Essential Defence by Metagenics. This herbal-medicine based product *"helps relieve bronchitis, coughs and colds"*. That is the label claim. Label claims are not allowed on labels by Health Canada unless they have been proven on human subjects testing.

#5) Improve your diet. Do this for both prevention and for treatment if you do get sick.

Eating unnecessary junk (added sugar, seed oils, excessive fructose, essentially anything with a label) hinders the immune system. This is a nice reminder to eat "real" food. Vegetables, Meat, Fruit, Nuts and Seeds, some starch, and no sugar. Simple. Eat some more fruits and veggies than usual, as the micronutrients will help with boosting your immune system as well (much like a multivitamin would).

Eat **fermented foods** to get other sources of good bacteria into your gut microbiome, daily. Historically, all ethnic groups have had some form of fermented foods in their diets. But just like offal (organ meats), fermented foods have gone out of style. Eat like your great grandparents did. Sauerkraut, kimchi, beet kvass, certain pickles are all classic fermented foods. Fermenting takes six to eight weeks and is accomplished with salt and water, not vinegar. Find these products in the refrigerator section of your grocery store, not on the shelf. Or make you own.

#6) Sleep. Again, this is important for prevention but even more so for when you do get sick. Please respect the circadian rhythm that all humans run on. Hours before midnight are worth more than those after it. Imagine you were camping – you'd probably be to bed an hour or 2 after sundown, and up about an hour after sun-up. Your body will also let you know when it needs more rest. Be a good listener. Sleep is when we heal and recover. Cortisol drops so that growth hormone, testosterone and melatonin may be secreted. These hormones cause healing and regrowth of cells. The greatest amount of secretion of these healing hormones is between 10pm and 12am. If you miss that window, you're less likely to heal and recover. If you cannot sleep, please ask for guidance – I know of many different ways to help with that.

Use **breathing techniques**. Doing something as simple as a 2x breath (breath in for 2 seconds, out for 4, or 3 and 6, or 4 and 8 – so long as it isn't stressful for you, slowly working your way up for a couple minutes will leave you feeling great).

#7) Exercise. Do it. Exercise makes everything in the body work better. Exercise stimulates the body in a way that is anti-viral. Choose something you like to do if possible. Walk, run, swim, lift weights, jump on a mini trampoline or skip (jumping is great for our lymphatic drainage), hike, play competitive sports. Just do it! We know a great place you can go ;)

If you have access to a **sauna**, please do so. This is very good for the immune system and detoxification. If possible, sauna three times a week for 11 to 30 minutes. Do hydrate there as well of course. Avoid steam rooms and communal hot tubs as these are places where bad microbes may be found and shared.

Our plan, specifically for the Clinic & Gym, and ourselves:

We have several bathrooms stocked with soap, as well as several hand sanitizer bottles. Please make a point of sanitizing or washing your hands when you arrive, and as often as you please.

As always, we wipe down our tables, and equipment between patients, and use single use disposable items at all times. We are able to book patients slightly further apart, so as to limit the number of people in the waiting room/clinic at any given time. We're sorry if this limits your ability to book your favourite time on the schedule – it is only temporary.

If you're uncomfortable coming into the clinic, please let us know and we will work with you to ensure you continue to get care one way or another.

We will be capping our class sizes at the gym, so if you're concerned about getting in during your favourite time, please check the Push Press app https://ssof.members.pushpress.com/ and you can reserve your favourite class if you'd like. Our classes are not typically overly large, requiring people to be overly close to each other – but a cap on class sizes will ensure this. Having the same, (relatively) small group of people in to work out is a huge advantage for us, as we aren't constantly pulling in people with other exposures in large numbers, and as we're all much healthier than the general population (suggesting we likely have better immune systems than those who are sedentary or less thoughtful about their health).

While we are very proud with how we've built up our business and clientele – our facility would not by any means be considered a "high traffic" area. This means we are able to clean and sanitize as is necessary and "keep up" with the cleanliness standards we need.

We will also be posting home-friendly versions of our workouts, so that if you aren't able to make it in, you can continue to train with us and follow the plan as best as possible.

Ensure you're wiping down your equipment before and after use and cleaning the floor where you were – the little mops are filled with disinfectant and water.

What do we presently have on hand? Vitamin D, Probiotics, Fruits & Greens, Multivitamins, Fish oil, and various other supplements. Don't feel obliged to buy from us. It's there if you want, and you can rest assured knowing it is of the highest quality available (hey, it's only your health!). I only stock it because I/we use it personally and I will use it all eventually anyway. I've been getting adjusted every week and I see Crystal for massage monthly or more. I have tried to limit my consumption of dairy and sugar. I have been trying to get into bed earlier and help with deeper sleep by avoiding screens for 30-60 minutes before bed, while also adding in a magnesium supplement to help with deeper sleep (sometimes Myocalm, sometimes Natural Calm). Gavin, Kristin and I take our vitamins every day, and

have been working to stay hydrated and physically fit (Gavin is killing us on this, imagine sprinting full effort everywhere you go!).

A note from the federal government:

When you are travelling and returning to Canada, if you develop symptoms of COVID-19 before you are scheduled to leave, do **not** get on board any form of public transportation. Seek medical attention.

If you experience symptoms of COVID-19 during a flight, tell the flight attendant before you land or the border services officer as you enter the country. They will notify a quarantine officer who will assess your symptoms. If you do not have symptoms but believe you were exposed to a source of COVID-19, report this information to a Canada border services agent on arrival in Canada. **This is required under the Quarantine Act.** The Canada border services agent will provide instructions for you to follow. During the 14 days after your return, If you develop symptoms of COVID-19, isolate yourself at home as quickly as possible and call your appropriate public health authority immediately. Describe your symptoms and document your travel history. Your health care professional or health authority will provide instructions for you to follow.

If you develop symptoms of COVID-19 here in Canada from a community-based source (an unknown cause then), please follow the above guidelines as the Quarantine Act still applies. Also know, that if quarantined, you may not come into our office for care during that period. That is the law.

Recipe for Homemade Hand Sanitizer

2/3 cup 99% isopropyl alcohol or ethanol, 1/3 cup aloe vera gel, 8-10 drops of essential oil, optional (use lavender, vanilla, peppermint or OnGuard/thieves as examples). Mix together and pour it through a funnel into a recycled soap or hand sanitizer bottle. Mix alcohol and aloe vera gel in a 2:1 ratio in any size you want.

For a disclaimer, I must say that these are all my educated opinions. I am not a trained epidemiologist nor an infectious disease expert. I have however taken several courses on public health, physiology, pathology and immunology – while I believe it gives me the necessary knowledge to have an educated assessment on these types of situations, I still refer to those who have dedicated their lives and professions to that study. I have treated many sick clients, not for their infectious illness but for their wellness or lack of wellness through chiropractic and therapeutic lifestyle changes. My opinions are based on my clinical experience and my education. If you find any of these opinions or suggestions helpful, I am satisfied that my time in writing this was well spent. If you disagree with any of this, and want to chat, I'm happy to learn what you know and pass that info along if it is relevant.

Thanks so much for your time reading this & for being an amazing part of our healthy community!

Adam, Kristin & The Sudbury School of Fitness team.