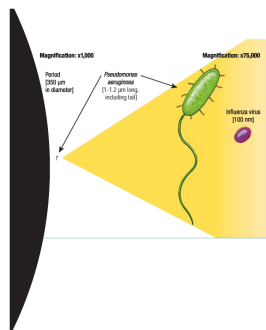


**CoronaVirus SARS-CoV**



Relative sizes of a period versus a virus.

With the advent of Corona Virus (SARS-CoV) impacting worldwide populations, looking forward to a healthy strategy to mitigate infection is taking high priority.

The first step is prevention.

Preparing your body to prevent infection is your best first defense. Boosting your body immune system includes a healthy diet, exercise, and supplements such as D3, Vit-C, Zinc, and diets rich in polyphenols (green and black tea) and whole plant based foods.

If you must travel, then get a strategy to minimize your exposure.

For airlines and other mass transportation, wipe down your area with antiseptic compounds, include alcohol based fluids, and even Pine Oil. UV-C is very effective to destroy a live virus. The virus does not like humid environments (i.e. an issue on very dry flights at normal cruising altitudes). Think twice about eating aboard flights.

Most important, wash your hands with soap and hot water for at least 30 seconds. Don't touch your face.

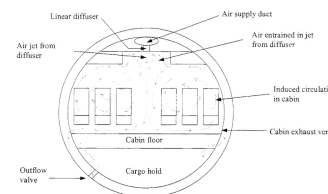
Knowledge is the key factor to battling infections. Be informed.

**Boost Your Immune System**



Boost: Vitamin D, Vitamin C, Zinc, Green and Black Tea, while avoiding Alcohol and other immune degradation.

**Airline Cabin Air Circulation and Seat Area Antiseptic Wipedown**



Understanding your travel environment helps to prepare you for travel. Wipe down airline trays and seat belt buckles.

**Prevention is the First Step**



Develop a strategy and playbook on how to boost your immune system, while reducing chances of exposure.

**WHAT IS IT ?**

Coronaviruses are a family of enveloped, single-stranded, positive-strand RNA viruses classified within the Nidovirales order. This coronavirus family consists of pathogens of many animal species and of humans, including the recently isolated severe acute respiratory syndrome coronavirus (SARS-CoV) (reference in expanded version below).

Most masks sold do not work. Only fully sealed masks may prevent airborne transmission.

**AIRLINE FLIGHTS**

1. Try to opt for direct flights whenever possible. Do not eat in crowded areas, and avoid salad bars or other areas with open food venues.
2. Wipe down trays, seat-belt buckles, and armrests with antiseptic.
3. Avoid eating during flights. Try to drink liquids from bottles or cans. Think of all the passenger items flight attendants touch (e.g. glasses, ice, trays, etc.).
4. Wash hands with soap and hot water. Use antiseptic liquids. Also use UVC light to inactivate viruses on surfaces.
5. Try to use nasal hydration prior flight to keep nasal passages hydrated.
6. Take Vit-C, Zinc, and D3.

**PREVENTION**

The best way to avoid getting Coronavirus, is to avoid crowded areas where airborne germs and viruses occur.

Avoid large crowds (especially cruise ships more than 2,000 passengers).

Build up your body's immune system, by implementing a healthy plant based diet, exercise, green and black tea, avoiding alcohol, and good hygiene (washing hands regularly with soap and hot water). Studies suggest Vitamin D3 may boost your immune system. Anything you can do to give your body a fighting chance is a good game plan to prevention.

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## **Corona Virus: Know Before You Go (Prevention via D3, UV, blue light, humidity, pine oil, and other factors)**

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### **Expanded Version - Pro Tips - You are the Architect of your Production**

**Why develop a strategy ?** Combatting colds and other infectious circumstances is now the number one concern for travelers. Understanding the risks, and trying to mitigate the circumstances which lead to infection, is a good front-line strategy to staying healthy while traveling.

**Airlines and Cabin Environment:** All high altitude operating aircraft use a ECS system to pressurize and condition air in the airliner cabin. All large commercial passenger aircraft manufactured today and nearly all such aircraft in service use ECSs based on engine bleed air. Typically, cabin air is exchanged regularly (pressurization is provided by the compressor section of the jet engine prior to combustion), and air is dumped overboard as part of the normal pressurization of the cabin. The air is dryer, which is a big factor in terms of making yourself more susceptible to acquiring germs and infection.

**Abstract:** Contaminants generated in the aircraft cabin air are eliminated by ventilating the cabin with outside air. The compressed outside air that is used for pressurization in the cabin is the same air that is used for ventilation. Pressurization and ventilation, however, serve very different purposes. For ventilation, outside air is used to dilute contaminants in the air and flush them out of the cabin. At high altitudes, especially at high latitudes, O<sub>3</sub> concentrations in the outside air can be high enough for their introduction into the cabin to result in O<sub>3</sub> concentrations that exceed the FAR 25 limit of 0.25 ppm by volume at any time above 32,000 ft (9,800 m) or above a time-weighted average of 0.1 ppm during any 3-h flight above 27,000 ft (8,200 m). Therefore, catalytic destruction of the O<sub>3</sub> in the incoming air is used on some aircraft ECS to meet the FAR requirement.

With the exception of O<sub>3</sub>, the outside air at cruise altitudes is generally quite pure and requires no additional cleaning. The outside air at or near ground level, however, can contain a wide variety of contaminants from industrial and urban sources. In addition to outside air contaminants, leaking hydraulic fluid, spilled fuel, or deicing fluid can be entrained in the air supply systems; few, if any, aircraft have cleaning systems to remove any of these contaminants.

An important function of the ECS is to distribute fresh air throughout the cabin by providing good air circulation for uniform temperature conditions; another is to flush out contaminated air.

Exhausted air generally is removed from the cabin at floor level and at the side walls and sometimes through the ceiling. Some of the exhausted air is recirculated to the cabin after passing through a filter, the balance of the exhausted air may pass around or through the cargo hold before being dumped overboard through an outflow valve. Exhaust fans extract air from the lavatories and galley areas, and it is ducted directly to the outflow valves to avoid contaminating air in other parts of the cabin with odors or other contaminants from these areas.

HEPA filters remove essentially all airborne pathogens and other particulate matter from an airstream that passes through them with a minimal efficiency of 99.97% for 0.3- $\mu$ m particles. Although they are effective in removing particles, including bacteria and viruses, from the recirculated air and preventing their spread through the cabin by this route, they do not remove gaseous contaminants. Chemical adsorption of gaseous contaminants with activated charcoal or other types of filters may be used to clean the recirculated air. These filters are available as an option on some aircraft to adsorb organic gases that are not trapped by the HEPA filters, but they are not widely used.

Recirculated air is obtained from the area above the cabin, under the floor, or both. Only air from the passenger cabin is recirculated. Air from the cargo bay, lavatories, and galleys is not recirculated (Boeing Co. 1988) but is separately vented overboard so that odors and cargo-bay fire-fighting chemicals that could be used in the event of a fire are not introduced into the cabin (Boeing Co. 1995).

The ECS must be able to prevent excessive humidity in the cabin air by removing moisture from the outside air before it is supplied to the cabin.

At cruise altitudes, the outside air contains very little moisture, and the main sources of humidity in the cabin air are respiration and evaporation from the skin of occupants. The steady supply of dry outside air is more than sufficient to flush the human-generated moisture from the cabin and maintain a low moisture content in the air, typically 10–20% relative humidity at cruise altitudes. Such values of relative humidity are below comfort guidelines (ASHRAE 1992).

The air supply for gaspers can be outside air from the air-conditioning system, recirculated air, or air from the mixing plenum, depending on the make and model of the aircraft. A separate gasper fan is used on some aircraft to circulate air through the gasper system. In some aircraft, air for the gaspers is extracted from the cabin and is independent of the recirculated air supplied to the mixing plenum.

Reference: <https://www.ncbi.nlm.nih.gov/books/NBK207472/>

**Cruise Ships:** The mega ships (more than 2,000 passengers) are basically germ factories, unless the cruise lines have excellent barriers in place to prevent spread of germs. What I witnessed on the MSC Bellissima on a two week cruise in the Persian Gulf (4,500 passengers and 1,500 crew), made me cringe. Double doors led into the most travelled commons area, the buffet and pool deck, which could only be opened by putting your hand on the door handle (Princess cruises has hands free door opening). The sanitary wash stations on the MSC Bellissima were inadequate, typically had no soap, and frequently had no hand sanitizer. This is a recipe for disaster. On the second week of the cruise, new passengers embarking from the USA had colds which spread through out the ship like wildfire. Four in our party of six, got sick.

**Winter Countries More Affected:** My theory is that Coronavirus started, and more prevalent in winter countries, since those are the areas where there is less sunshine (UV and D3) reaching humans. UV kills the virus. D3 boosts your immune systems, and lack of sunshine and natural D3 production weakens the human immune system. Hence why colds and other sickness are more prevalent in the winter.

Abstract: Vitamin D has long been recognized as essential to the skeletal system. Newer evidence suggests that it also plays a major role regulating the immune system, perhaps including immune responses to viral infection. Interventional and observational epidemiological studies provide evidence that vitamin D deficiency may confer increased risk of influenza and respiratory tract infection.

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3308600/>

### **Vitamin D and Humidity May be Factors:**

Abstract: Vitamin D comes from two sources: skin synthesis from the precursor—7-dehydrocholesterol—to cholecalciferol upon UVB radiation, and from the diet as cholecalciferol (D3) or ergocalciferol (D2)... On the basis of a reanalysis of laboratory experiments, Shaman et al. [70] revealed that absolute humidity strongly modulates the airborne survival and transmission of the influenza virus. The models showed that precipitation and temperature were negatively correlated with A/H1N1 activity.

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6121423/#!po=54.6875>

Abstract: Maintaining a normal healthy immune defense system lowers the incidence and/or the severity of symptoms and/or the duration of common cold (CC). Physical barriers and innate and adaptive immunity have been involved during a CC episode. Vitamins C and D, zinc, and Echinacea have evidence-based efficacy on these immune system barriers.

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5949172/>

### **UV-C and Blue Light as a Biocide:**

Abstract: UV-C light: wavelength range lies between 200 and 280 nm; this electromagnetic spectrum has biocidal effects and generally is reported as “germicidal” or more usually “ultraviolet germicidal irradiation” (UVGI).

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3925713/>

Abstract: Another significant use of UV light is air disinfection because a wide variety of fungal, bacterial, and viral pathogens may be transmitted by airborne droplets as e.g., *Mycobacterium tuberculosis*, influenza viruses, SARS corona virus, *Aspergillus* spp., and *Legionella* spp. UVC can be used for whole room disinfection, cleaning the air and surfaces under this light. Generally, air disinfection by UVC is accomplished through: irradiation on the upper-room air; irradiation of the entire room; or irradiation of the air that passes through enclosed air-circulation and heating, ventilation, and air-conditioning systems. Although it has been known for the past 100 years that UVC irradiation is highly germicidal. UV light killing of bacteria is well understood, but this light-mediated antimicrobial effect may not be unique, since current studies indicate that blue light produces a somewhat similar effect. Even when compared with UV irradiation, blue light has been accepted to be much less detrimental to mammalian cells. Further studies support this opinion, indicating existence of a therapeutic window of blue light for bacterial infections where bacteria are selectively inactivated while host tissue cells are preserved. Recent studies have highlighted the diversity of applications of light-mediated technology against pathogens of all known classes. Furthermore, light is non-polluting and environmentally friendly, and even if PS need to be used, these compounds are likely to be photodegraded rapidly when the bio-threat has been neutralized thus leaving no lasting pollution. The use of light-based technology to prevent and treat actual infections suggests that they may be useful to decontaminate humans that have already received exposure to biological agents, without causing undue harm to host tissue. Lastly light-based inactivation may be particularly suitable to form vaccines as they kill pathogens while preserving their antigenicity.

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3925713/#!po=45.0820>

Abstract: Sunlight or, more specifically, solar UV radiation (UV) acts as the principal natural virucide in the environment. UV radiation kills viruses by chemically modifying their genetic material, DNA and RNA. The most effective wavelength for inactivation, 260 nm (55), falls in the UVC range.

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1280232/>

### **Coronavirus Background:**

Abstract: Coronaviruses are a family of enveloped, single-stranded, positive-strand RNA viruses classified within the Nidovirales order. This coronavirus family consists of pathogens of many animal species and of humans, including the recently isolated severe acute respiratory syndrome coronavirus (SARS-CoV).

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1306801/>

### **Origins of Coronavirus:**

Abstract: Coronavirus biological vectors are not known. However, serological and genetic evidence from various studies supports a zoonotic origin of SARS-CoV (140). This hypothesis was first based on epidemiological reports demonstrating that early patients with SARS in Guangdong Province were exposed to live wild game animals held in markets serving the restaurant trade (375).

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1306801/#!po=11.1842>

### **Plant Based Diets:**

A novel approach is to adopt a plant-based diet. While not entirely secure from cross contamination (i.e. salmonella from animal sources), you can reduce your exposure by a huge percent.

Abstract: Many of the diseases that afflict people today are caused by microbes whose ancestors came from animals first domesticated by early humans. Biologists believe that the measles virus stemmed from canine distemper and rinderpest, an affliction of cattle; that rhinoviruses, agents of the common cold, came to us from horses; and that smallpox is a close cousin of cowpox. Some zoonotic infections move directly from animals to humans. In such cases, an animal is the natural host—or reservoir—for the pathogen, and through an evolutionary twist of fate, the pathogen

moves from the natural host to humans. Severe Acute Respiratory Syndrome (SARS) is a recent example of this. In the spring of 2003 this new and deadly viral illness swept out from China's Guangdong Province and spread rapidly around the world before it was contained that summer. Each year an estimated 76 million Americans—about one in four—become infected by what they eat. Approximately 325,000 are hospitalized. More than 5,000 (14 a day) die. In April 2009 the U.S. Centers for Disease Control and Prevention (CDC) reported that progress in reducing foodborne infections had stalled, pointing to gaps in the existing food safety system and the need to develop improved food safety practices as products move from the farm to the table. The most common causes of foodborne illness include the bacterial infections *Campylobacter*, the most frequently identified bacterial cause of diarrheal illness in the world; *Salmonella*, which spreads to humans through a variety of foods of animal origin, or through fecal contamination of plant-based foods, such as in the 2009 peanut-product outbreak; and *E. coli* O157:H7, the agent behind a serious and sometimes deadly complication called hemolytic-uremic syndrome (HUS). The most common viral cause of foodborne illness is Calicivirus, also referred to as Norwalk-like virus or norovirus. Unlike the previous three bacterial foodborne pathogens, noroviruses easily spread from one infected person to another and can contaminate an environment, making them extremely difficult to eradicate from hotels, hospitals, nursing homes, cruise ships, and similar establishments where large numbers of people congregate. Raw foods of animal origin are the most likely to be contaminated—that is, raw meat and poultry, raw eggs, unpasteurized milk, and raw shellfish. Foods for which such products are pooled from many sources and batch processed are also hazardous, because a pathogen present in any one of the animals might contaminate the whole batch. Lower respiratory tract infections (including pneumonia) account for more than 4 million deaths worldwide—the greatest global killer among infectious diseases. Pneumonia is also the leading cause of death of the very young, often striking children with low birth weight or those whose immune systems are weakened by malnutrition or other diseases. Most of these deaths occur in developing countries. How the Flu Spreads

Influenza viruses mainly spread when droplets from the cough or sneeze of an infected person are propelled through the air and land on the mouth or nose of someone nearby. Flu viruses may also spread when a person touches respiratory droplets on another person or on an object and then touches his or her own mouth or nose. The hardy influenza virus can survive on environmental surfaces, such as doorknobs and countertops, for 2 to 8 hours—one of the reasons that hand washing and surface hygiene is an important part of most flu control strategies.

Once the flu virus makes contact with mucous membranes in the eyes and nose, it heads to the cells along the upper respiratory tract, bronchial tubes, and trachea, where it swiftly multiplies. Scientists believe flu symptoms arise because growth of the virus damages the cells into which it has inserted itself and because the immune system, in trying to limit the damage, responds in ways that cause familiar discomfort: It sends out white blood cells, called cytokines, that cause muscle and joint pain, and it produces a fever, which is one of the body's ways of mobilizing its defenses against invaders.

### **How to Protect Yourself**

Consider getting vaccinated against influenza. Vaccines are one of the best ways to reduce the morbidity and mortality associated with the disease. They do not themselves cause influenza in any form. Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it. Wash your hands often with soap and water, especially after coughing or sneezing. Alcohol-based hand sanitizers are also effective. Avoid touching your eyes, nose, or mouth, which can spread germs.

Reference: <https://www.ncbi.nlm.nih.gov/books/NBK209711/>

### **Corona Virus SARS-CoV Environmental Survival:**

Abstract: High relative humidity seemed less favorable to the virus, unless the temperature came down to 6 °C. At this temperature, the survival of the HCoV 229E was significantly enhanced whatever the rate of relative humidity. This enhanced survival rate at high relative humidity and low temperature may explain the winter propagation of coronaviruses. Coronaviruses also well survive in suspension. Studies have been conducted on SARS-CoV, which was shown to survive at least 96 hrs in sputum, serum and feces. Its infectivity level is nevertheless lower when it is suspended in urines [106]. It is noteworthy that SARS-CoV survival depends on the kind of feces whose pH may vary. Some studies have shown certain surprising results in regard of the previously quoted

studies. Indeed, SARS-CoV did not survive beyond 24 hrs in normal feces of an adult or beyond three hrs in newborns feces, which is slightly acidic. In contrast, it could survive longer, up to four days, in diarrheic feces whose pH could reach pH 9. The same study revealed a SARS-CoV survival until four to five days in respiratory specimen. Another important point revealed by this study is the inefficiency of bleach, a widely used disinfectant, when applied at the 1:100 (0.06%) use-dilution prescribed by the manufacturer. Sattar et al., whose results are recorded in Table 2, have found higher reductions of HCoV 229E viral titers with concentrations of hypochlorite greater than the one tested here. These results are then consistent with a concentration-dependent effect [133].

Another recent study used MHV as the SARS-CoV surrogate, and carrier tests on Petri dishes. Antiseptic antiviral activity of common household disinfectants or antiseptics, containing either 0.05% of triclosan, 0.12% of chloroxynol, 0.21% of sodium hypochlorite, 0.23% of pine oil, or 0.10% of a quaternary compound with 79.0% of ethanol, were investigated. All of them provided at least a 3 log<sub>10</sub> reduction in viral titers within a 30 sec contact time, which is consistent with the previous results [134].

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3509683/>

### **Common Household Disinfectants for SARS Coronavirus:**

**Abstract:** The 2003 outbreak of severe acute respiratory syndrome (SARS) infected over 8000 people and killed 774. Transmission of SARS occurred through direct and indirect contact and large droplet nuclei. The World Health Organization recommended the use of household disinfectants, which have not been previously tested against SARS coronavirus (SARS-CoV), to disinfect potentially contaminated environmental surfaces. There is a need for a surrogate test system given the limited availability of the SARS-CoV for testing and biosafety requirements necessary to safely handle it. In this study, the antiviral activity of standard household products was assayed against murine hepatitis virus (MHV), as a potential surrogate for SARS-CoV.

#### **Results:**

When tested as directed, common household disinfectants or antiseptics, containing either 0.050% of triclosan, 0.12% of PCMX, 0.21% of sodium hypochlorite, 0.23% of pine oil, or 0.10% of a quaternary compound with 79% of ethanol, demonstrated a 3-log reduction or better against MHV without any virus recovered in a 30-second contact time.

#### **Conclusion:**

Common household disinfectants and antiseptics were effective at inactivating MHV, a possible surrogate for SARS-CoV, from surfaces when used as directed. In an outbreak caused by novel agents, it is important to know the effectiveness of disinfectants and antiseptics to prevent or reduce the possibility of human-to-human transmission via surfaces.

Reference: <https://www.ncbi.nlm.nih.gov/pubmed/19692148>

**Abstract:** Pine oil.

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5206475/>

### **Alcohol Weakens Immune System:**

**Abstract:** Clinicians have long observed an association between excessive alcohol consumption and adverse immune-related health effects such as susceptibility to pneumonia. In recent decades, this association has been expanded to a greater likelihood of acute respiratory stress syndromes (ARDS), sepsis, alcoholic liver disease (ALD), and certain cancers; a higher incidence of postoperative complications; and slower and less complete recovery from infection and physical trauma, including poor wound healing.

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4590612/>

**Abstract:** Alcohol and the Immune System.

Reference: <https://pubs.niaaa.nih.gov/publications/10report/chap04b.pdf>

**Abstract: Alcohols Effect on Host Defense.** Alcohol affects many organs, including the immune system, with even moderate amounts of alcohol influencing immune responses. Although alcohol can alter the actions of all cell populations involved in the innate and adaptive immune responses, the effect in many cases is a subclinical immunosuppression that becomes clinically relevant only after a secondary insult (e.g., bacterial or viral infection or other tissue damage). Chronic alcohol exposure also interferes with the normal functioning of all aspects of the adaptive immune response, including both cell-mediated and humoral responses. All of these effects enhance the susceptibility of chronic alcoholics to viral and bacterial infections and to sterile inflammation. Alcohol affects many organs, including the immune system that controls the body's defense against infectious pathogens (e.g., bacteria and viruses) and other harmful agents. Chronic alcohol use is associated with significant alterations in the immune system that predispose people to viral and bacterial infections and cancer development.

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4590613/>

### **Black Tea Extract Versus SARS:**

**Abstract:** Finally, this study has identified three compounds (TF2B, TF3 and tannic acid) that are effective 3CLPro inhibitors ( $IC_{50} \leq 10 \mu M$ ). These compounds are abundant in the extract of black tea (16,19). Black tea is a popular beverage in the world. Results from this study warrant further investigation to examine the effect of these natural products in inhibition of SARS-CoV replication in cell culture. Clark et al. reported that theaflavins extracted from black tea were able to neutralize bovine coronavirus and rotavirus infections (20). Thus, it will be very interesting to evaluate, in a separate study, whether drinking black tea can prevent or alleviate the infection of an enteric form of coronavirus since SARS-CoV is known to actively replicate in the intestinal tract (21).

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1142193/>

### **Green Tea Antioxidant: Plant polyphenols as dietary antioxidants in human health and disease**

**Abstract:** Polyphenols are secondary metabolites of plants and are generally involved in defense against ultraviolet radiation or aggression by pathogens. In the last decade, there has been much interest in the potential health benefits of dietary plant polyphenols as antioxidant. Epidemiological studies and associated meta-analyses strongly suggest that long term consumption of diets rich in plant polyphenols offer protection against development of cancers, cardiovascular diseases, diabetes, osteoporosis and neurodegenerative diseases. Here we present knowledge about the biological effects of plant polyphenols in the context of relevance to human health.

Reference: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2835915/>

### **Chinese Coronavirus Prevention (non-NIH.gov website):**

**Abstract: Prevention**

Naturopathic prevention recognizes the importance of both decreasing exposure and addressing individual susceptibility. The following steps may assist with lowering your risk of becoming ill and/or assisting with management if exposed to a coronavirus.

- **Hygiene:** Wash your hands often with soap and water. Always wash your hands before preparing food and before eating. Avoid touching your eyes, nose, or mouth with unwashed hands. Cover your mouth and nose with a tissue when you cough or sneeze, then throw the tissue in the trash and wash your hands. If you don't have a tissue, it is better to cough into your shirt sleeve; not your hands and always wash your hands after coughing or sneezing.(3)
- **Food hygiene:** Ensure that you use a different cutting board for meat and vegetables. Clean your cutting boards well. Avoid sharing water, food, or products (glasses, cutlery, hygiene products) with someone who has a respiratory infection.
- **Clean surfaces:** Whether grocery shopping, flying or exposed to something new, clean and disinfect all objects and surfaces that you touch.
- **Avoidance:** Avoid close contact with people who are sick. If you have a cold or flu stay home to limit your risk of spreading the infection to other and to support the healing process. Avoid large crowds when the risk is high. If you choose to wear a mask, choose a mask that covers both your nose and mouth.
- **Stay hydrated:** Ensure adequate hydration, especially if there are signs of dehydration to assist the body in fighting infections.

- Clean balanced diet: Limit known food intolerance's; ensure balanced nutrition including lean protein, vegetables and whole grains; and limit foods that contribute to mucous (such as excess bread, dairy, yeast and bananas).(4) Limit processed food and foods high in salt and sugar.(5)
- Spices: Many warming spices have anti-microbial and anti-viral properties. Spices such as garlic, ginger, thyme, oregano and sage are easily added to teas and food dishes.
- Sleep: Ensure adequate sleep. When you have symptoms of a cold or flu it is common to require more sleep.(6)
- Stress Management. Reduce and manage stress. Positive relationships are associated with a stronger immunity and overall health.(7)• Indoor pollutants. Address indoor pollutants such as mold as they can worsen lung related illnesses.(8, 9)
- Avoid smoking. Smoking and exposure to secondhand smoke can increase your susceptibility of lung-related illnesses.(10)
- Exercise: Moderate exercise enhances immune function and lowers the risk of respiratory infections. Intensive exercise can suppress normal immune reactions and is best avoided if unwell.(11)

Source:

[http://worldnaturopathicfederation.org/wp-content/uploads/2020/01/WNF\\_Cornoa\\_Virus\\_Jan27.pdf](http://worldnaturopathicfederation.org/wp-content/uploads/2020/01/WNF_Cornoa_Virus_Jan27.pdf)

**This PDF Build Note:** This pdf is a work in progress. I'll update this post as incoming information continues. Updated Friday 6 March 2020.