

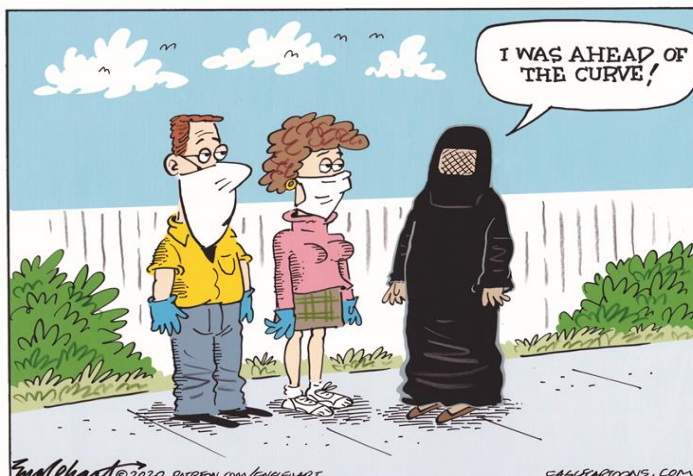


PARKSVILLE QUALICUM RETIRED TEACHERS' ASSOCIATION NEWSLETTER # ____ – May, 2020

PRESIDENT'S GREETING from Cathy Van Herwaarden:



*'Face masks have sold out.
Thank goodness we bought
all that loo roll'*



100 Years Ago - The Spanish Flu – Jan. 1918 to Dec. 1920

Source: https://en.wikipedia.org/wiki/Spanish_flu and <https://www.history.com/topics/world-war-i/1918-flu-pandemic>



The Spanish flu pandemic of 1918, the deadliest in history, infected an estimated 500 million people worldwide—about one-third of the planet's population—and killed an estimated 20 million to 50 million victims, including some 675,000 Americans.

The 1918 flu was first observed in Europe, the United States and parts of Asia before swiftly spreading around the world. At the time, there were no effective drugs or vaccines to treat this killer flu strain.

Citizens were ordered to wear masks, schools, theaters and businesses were shuttered and bodies piled up in makeshift morgues before the virus ended its deadly global march.

Spanish Flu came in 3 waves: Spring 1918, Fall 1918 and Winter 1918/19.

The first wave caused much sickness & death. That summer, there was celebration as people thought it was over and resumed life and social interaction including big events. That summer the virus mutated and became deadlier. The second wave caused a higher death toll. The third wave was not as deadly. By summer 1919, the virus disappeared, but people still didn't venture out in fear of a fourth wave.

The first wave of the 1918 pandemic occurred in the spring and was generally mild. The sick, experienced such typical flu symptoms as chills, fever and fatigue. People usually recovered after several days, and the number of reported deaths was low.

However, a second, highly contagious wave of influenza appeared with a vengeance in the fall of 1918. Victims died within hours or days of developing symptoms, their skin turning blue and their lungs filling with fluid that caused them to suffocate. Its third wave stretched through the winter and wasn't considered eradicated until the end of 1920.

One unusual aspect of the 1918 flu was that it struck down many previously healthy, young people—a group normally resistant to this type of infectious illness—including a number of World War I servicemen. In fact, more US soldiers died from the 1918 flu than were killed in battle during the war. Troops moving around the world in crowded ships and trains helped to spread the killer virus.

Although the death toll attributed to the Spanish flu is often estimated at 20 million to 50 million victims worldwide, other estimates run as high as 100 million victims—around 3 percent of the world's population. In Canada, it killed about 55,000, mostly young adults.

The exact numbers are impossible to know due to a lack of medical record-keeping in many places. What is known, however, is that few locations were immune to the 1918 flu.

In America, victims ranged from residents of major cities to those of remote Alaskan communities. Even President Woodrow Wilson reportedly contracted the flu in early 1919 while negotiating the Treaty of Versailles, which ended World War I.

What Caused the Spanish Flu?

Virologist John Oxford theorized that the major British troop staging and hospital camp in Étaples in France was at the center of the Spanish flu. His study found that in late 1916 the Étaples camp was hit by the onset of a new disease with high mortality that caused symptoms similar to the flu.

According to John Oxford, a similar outbreak occurred in March 1917 at army barracks in Aldershot (England), and military pathologists later recognized these early outbreaks as the same disease as the 1918 flu.

The overcrowded camp and hospital was an ideal environment for the spread of a respiratory virus. The hospital treated thousands of victims of poison gas attacks, and other casualties of war, and 100,000 soldiers passed through the camp every day. It also was home to a piggery, and poultry was regularly brought in from surrounding villages to feed the camp. John Oxford and his team postulated that a precursor virus, harbored in birds, mutated and then migrated to pigs that were kept near the front.

It's unknown exactly where the particular strain of influenza that caused the pandemic came from; however, the 1918 flu was first observed in Europe, America and areas of Asia before spreading to almost every other part of the planet within a matter of months.

Why The Spanish Flu Was Called The Spanish Flu

The Spanish Flu did not originate in Spain, though news coverage of it did. During World War I, Spain was a neutral country with a free media that covered the outbreak from the start, including the grave illness of Spain's King Alfonso XIII. Meanwhile, allied countries and the Central Powers had wartime censors who covered up news of the flu to keep morale high. Because Spanish news sources were the only ones reporting on the flu, many believed it originated there and these widely spread stories created a false impression of Spain as especially hard hit. Meanwhile, the Spanish believed the virus came from France and called it the "French Flu."

Fighting the Spanish Flu

When the 1918 flu hit, doctors and scientists were unsure what caused it or how to treat it.

Unlike today, there were no effective vaccines or antivirals, drugs that treat the flu. (The first licensed flu vaccine appeared in America in the 1940s. By the following decade, vaccine manufacturers could routinely produce vaccines that would help control and prevent future pandemics.

Complicating matters was the fact that World War I had left parts of America with a shortage of physicians and other health workers. And of the available medical personnel in the U.S., many came down with the flu themselves.

Additionally, hospitals in some areas were so overloaded with flu patients that schools, private homes and other buildings had to be converted into makeshift hospitals, some of which were staffed by medical students.

Officials in some communities imposed quarantines, ordered citizens to wear masks and shut down public places, including schools, churches and theaters. People were advised to avoid shaking hands and to stay indoors, libraries put a halt on lending books and regulations were passed banning spitting.

According to *The New York Times*, during the pandemic, Boy Scouts in New York City approached people they'd seen spitting on the street and gave them cards that read: "You are in violation of the Sanitary Code."

Aspirin Poisoning and the Flu

With no cure for the flu, many doctors prescribed medication that they felt would alleviate symptoms... including aspirin, trademarked by Bayer in 1899—a patent that expired in 1917, meaning new companies were able to produce the drug during the Spanish flu epidemic.



Before the spike in deaths attributed to the Spanish Flu in 1918, the use of aspirin was recommended by the US Surgeon General, the Navy and the *Journal of the American Medical Association*. Medical professionals advised patients to take up to 30 grams of aspirin per day, a dose now known to be toxic. (The medical consensus today is that doses above four grams are unsafe.) Symptoms of aspirin poisoning include hyperventilation and pulmonary edema, or the buildup of fluid in the lungs, and it's now believed that many of the October deaths were actually caused or hastened by aspirin poisoning.

The Flu Takes Heavy Toll on Society

The flu took a heavy human toll, wiping out entire families and leaving countless widows and orphans in its wake. Funeral parlors were overwhelmed and bodies piled up. Many people had to dig graves for their own family members.

The flu was also detrimental to the economy. In the United States, businesses were forced to shut down because so many employees were sick. Basic services such as mail delivery and garbage collection were hindered due to flu-stricken workers.

In some places there weren't enough farm workers to harvest crops. Even state and local health departments closed for business, hampering efforts to chronicle the spread of the 1918 flu and provide the public with answers about it.

How U S Cities Tried to Stop The 1918 Flu Pandemic

A devastating second wave of the Spanish Flu hit American shores in the summer of 1918, as returning soldiers infected with the disease spread it to the general population—especially in densely-crowded cities. Without a vaccine or approved treatment plan, it fell to local mayors and health officials to improvise plans to safeguard the safety of their citizens. With pressure to appear patriotic at wartime and with a censored media downplaying the disease's spread, many made tragic decisions.

Philadelphia's response was too little, too late. Dr. Wilmer Krusen, director of Public Health and Charities for the city, insisted mounting fatalities were not the "Spanish flu," but rather just the normal flu. So on September 28, the city went forward with a Liberty Loan parade attended by tens of thousands of Philadelphians, spreading the disease like wildfire. In just 10 days, over 1,000 Philadelphians were dead, with another 200,000 sick. Only then did the city close saloons and theaters. By March 1919, over 15,000 citizens of Philadelphia had lost their lives.

St. Louis, Missouri, was different: Schools and movie theaters closed and public gatherings were banned. Consequently, the peak mortality rate in St. Louis was just one-eighth of Philadelphia's death rate during the peak of the pandemic.

Citizens in San Francisco were fined \$5—a significant sum at the time—if they were caught in public without masks and charged with disturbing the peace.

Spanish Flu Pandemic Ends

By the summer of 1919, the flu pandemic came to an end, as those that were infected either died or developed immunity.

Almost 90 years later, in 2008, researchers announced they'd discovered what made the 1918 flu so deadly: a group of three genes enabled the virus to weaken a victim's bronchial tubes and lungs and clear the way for bacterial pneumonia.

Since 1918, there have been several other influenza pandemics, although none as deadly.

JUST PONDER ON THIS FOR A MINUTE...

2020 - We just have to stay in for a couple of months.

WW II - You have to leave your loved ones and might never see them again.

2020 - But my kids need some fresh air so we're all going to the park.

WW II - Your kids have to be evacuated and live with random good Samaritans for their safety.

2020 - I can only Facetime my family and friends I can't see them.

WW II - I have written letters, I'm hoping they're received and I get a response this year.

2020 - I am trying to order my food through online shopping. It's taking ages to get to me. I need alcohol and all the other foods I'm craving.

WW II - Are you coming to queue-up in the line for our rations-potato soup every day of the week?

2020 - The government hasn't said we can't go out. They just said we can; but only once to exercise, so I'm going to go meet my friends and do what I want.

WW II - I'm not going out just in case a bomb drops, so I will stay in listening to some music quietly because the air raid siren might go off.

2020 - Netflix needs to sort out the streaming. I can't watch a series without it crashing.

WW II - We are sitting in the dark around a candle playing cards keeping as much light in as possible so the warplanes don't see us from above.

2020 - Every man for themselves, so I'm going to stock-pile as much as I can because we are more important than anyone else, never mind the elderly that gave us this freedom.

WW II - I'm so grateful for this community, everyone is helping each other out when and where we can, we must stay strong.

This is the perspective that we should have, we don't know how LUCKY we have it and people still aren't listening. Stay in, it really is that simple!

"This, Too, Shall Pass" - Pandemic Pep Talk from World War II Veterans

https://www.cbc.ca/news/canada/this-too-shall-pass-pandemic-pep-talks-from-canadian-ww-ii-veterans-1.5538729?cmp=newsletter_CBC%20News%20Morning%20Brief_1100_23883

Saving Your Health, One Mask at a Time

April 7, 2020 - Peter Tippett, MD, PhD, CEO careMESH”

<https://www.linkedin.com/pulse/saving-your-health-one-mask-time-peter-tippett-md-phd/?fbclid=IwAR02K71t7izJ03i7NfpuwMS4eBWYaXuLWt6bpzKHh7wY38Viwd2qV5EARbY>

*Your nose reduces the risk of viral particles getting to your throat.
A mask reduces the risk of the viral particles getting to your nose,
and Social Distancing reduces the risk of them getting to your mask.
Together, these countermeasures work very well.*



How does a Mask work?

Masks that are FDA-cleared have been tested against a benchmark and have a rating.

N95 masks have been shown to reduce 95% of passage of a certain size particle over a certain time period in specific laboratory conditions. N95s have benefits over the simple dust masks typically used during construction work, for example, such as:

- (a) they are more comfortable to wear,
- (b) the air is more likely to go through the mask than around it,
- (c) exhaled air is less likely to fog your glasses, and
- (d) inhaled air is a bit less restricted.

Any mask has 3 main protective properties:

- They make it hard to touch your nose and mouth, thus providing great protection for what is the biggest infection vector in most situations -- hand-to-face transmission.
- They reduce the exposure of your nose and mouth to viruses in the ambient air (directly breathing in viral spray or viral fog).
- They reduce the chance that others will get infected from you when you are sick and don't know it (and when you are sick and do know it!).

Treat masks like underwear: use a fresh one every day (and whenever things happen that make you want to change).

If you are standing with your mouth closed and normally breathing while close to a COVID carrier as they are speaking to you, you may have a 20% chance of getting sick from that exposure. Add a mask and that would go down to 4%, add distance and that goes to under 1%. Add repeated individual exposures from other people, and your risk gets worse. Add more countermeasures and your safety improves.

The power of each individual countermeasure is much less important than their collective power in protecting you.

Should I be Wearing Gloves, Too?

Wearing a mask uniformly reduces risk. Unfortunately, the case for non-medical people wearing gloves is much less clear because it can be totally useless. They become contaminated just as your hands do. Therefore, wearing gloves for long periods doesn't help protect others. Both a contaminated glove and contaminated hand can pass a virus either way. If you handle money or touch a door that others will touch, you will both pick up the virus on your gloves and transfer it to the next object or person. If you touch your face

wearing gloves, you will be just as likely to drive a virus to your eyes, nose or mouth as if you touched your face with an ungloved hand. Wearing gloves might help you avoid touching your face, but masks are much better for this.

Gloves are best for temporary situations in which you expect "touch exposure". Use them, allow them to be contaminated, and when you are away from the touch exposure zone, take them off, wash your hands and get on with life.

So, use them for short periods of time for a specific purpose. For example, I recommend wearing gloves (and a mask) when you go to a store. Put them on when leaving your car, feel free to open doors, touch things, move things, with abandon, however, never *touch your face when you are wearing gloves*. Use them when paying, and when typing your pin or signing for your purchase. When you leave the store remove them and if they are disposable, throw them away. When you get to your car, open the door, clean your hands with your sanitizer or wipes, and go back to your safe zone.

By the way, the winter gloves will become un-contaminated over time as long as they are dry (see below), and they can be used again the next day since the inside is going to stay clean. If you really want to decontaminate them, they can be put in a 250-degree Fahrenheit oven for a half hour or set out in the sun.

Bottom Line on Masks & Gloves:

- Wear a mask when you are in "exposure" zones (mainly places with other people).
- Treat your home, car, and yard as safe places (no mask or gloves).
- Be on high alert on what you are doing with your hands when you are in "danger zones." *This is when you must not touch your face.*
- Consider wearing gloves (even winter gloves or work gloves can be helpful) but only for short periods of time and only when in "touch exposure" danger zones.
- Remove your gloves (and mask) when you return to your safe place.
- Wash your hands *every single time* you take off your gloves or mask or move from a danger zone back to a safe zone.
- When you are at home and after washing up, you can relax, scratch your nose, rub your eyes and floss your teeth...without worry.

What About Grocery Bags?

You can go crazy worrying about the bags and store items and packages you bring into your safe zone. In general, if they are dry, they are relatively safe. You can make them safer by letting them sit for an hour or more. Bright sunlight, or dry air, are both virus killers. Keep your hands away from your face while you are unpacking and wash your hands after you have finished putting things away, then consider yourself safe. No one is going to succeed at perfect sterile procedures in the real world, so make a routine that makes sense.

Caveat: *I know that viruses are not "alive" nor "dead" but I will use "dead" to mean that they are no longer capable of infecting anyone and "alive" to mean they still can.*

SIDEBAR: Viruses are always dying. *Viruses only "grow" (replicate making more viruses) when they are in the inside of an infected person (or a bat) cell. Everywhere else, they are dying. Depending on where they are and their local environment, they die quickly or they die slowly, but they constantly die. This is the big difference between viruses and bacteria. If you*

put a million viruses in a drop of water, they will start dying immediately. And there will never be more individual virus particles than you started with. Bacteria, on the other hand, can be in "standing water" with enough other environmental help to replicate and make a big, stinky, slimy mess. Just one or two bacteria double to 4, 8, 16, 32, 64, 128, 256, 512, 1024 eventually to millions of individual bacteria, in your soup, or milk, or pasta sauce, or whatever. Viruses never do this. Outside of the infected person they start dying and keep dying. We can take advantage of this fact to help keep us safe.

For those who think in exponential math, Viruses tend to die via a half-life. Just like bacteria grow exponentially in the soup, viruses grow exponentially in populations of people. Exponential growth is described with a "doubling time". Similarly, exponential death is described as a "half-life". Radioactive material has a constant, unchangeable half-life. The half-life for death of viruses, on the other hand, is a good property in the everyday world and is also easy to speed up, and easy to trust.

What about packages and mail delivered on the front porch?

The half-life of virus particles might be a minute or two on a package on a dry warm day sitting in direct sunlight, or a half hour or more for the same package sitting in a cool humid environment like your basement. So, with these hypothetical numbers, for the package on the porch in the sun, ten half-lives kill off 99.9% of those virus particles in 20 minutes. The same package in your basement might need five hours to accomplish the same kill-off benefit. Sunlight (UV light), heat, dryness, soap, alcohol, peroxide, bleach all rapidly kill viruses.

So even if the outside of the box of Cheerios was contaminated a few hours ago by a sick shopper touching it, by the time you get it home, 99.9% of it is probably already dead, and by the time you eat breakfast tomorrow, after the box sitting in your dry cupboard, another 99.9% of it is likely dead.

Please don't get sucked into breathless worry because the scientist who (correctly) shows that it is "possible" to find some live virus on cardboard after 2 days. Although true, the risk is infinitesimal. That scientist can find the last two living viruses, but you need a much bigger dose to cause any harm and, in most cases, that all went away yesterday.

Key Takeaway on Masks:

The easiest, most reliable precaution you can take when out of your safe zone

- If you work with the public, you should absolutely be wearing a mask on the job.
- If you are in a safe place, a mask has low value, because the risk is already low.
- If you are going to put the same mask on and off, then treat the outside as contaminated and the inside as safe.
- If you handle the outside of your mask, then consider your hands as contaminated, and wash them.
- Don't touch the inside of your mask with your hands or anything else dirty.
- Put the cloth mask in the laundry at least daily. (or wash with warm water and soap).
- Have at least two masks so one can be in the wash and the other clean when needed
- Don't bother boiling masks before you wear them. The detergent in your washing machine is easier, stronger, and more likely to succeed by far.



Dr. Bonnie Henry MD MPH FRCPC

SOURCES: <https://nccid.ca/partner/bonnie-henry/> and https://en.wikipedia.org/wiki/Bonnie_Henry
<https://www2.gov.bc.ca/gov/content/health/about-bc-s-health-care-system/office-of-the-provincial-health-officer/biographies>

Dr. Bonnie Henry is the voice of reason and calm. She is capable of handling great amounts of pressure in a way that gives you confidence that she is in control; but who is she?

Bonnie Henry is a Canadian physician who is the Provincial Health Officer for British Columbia and a Clinical Associate Professor at the University of British Columbia. She is a specialist in public health and preventive medicine (also known as community medicine).



Henry completed medical school at Dalhousie University Faculty of Medicine, and went on to complete a Masters of Public Health in San Diego. She was a medical resident at the University of California, San Diego, before returning to Canada to practice community medicine at the University of Toronto.

2000

- served as part of the WHO (World Health Organization) UNICEF polio eradication program in Pakistan

Alma Mater:

- Dalhousie University Faculty of Medicine,
- University of California, San Diego,
- University of Toronto

Scientific Career Institution

- University of British Columbia

2001

- continued to work with the World Health Organization, moving to Uganda to support their efforts to tackle the Ebola virus disease
- helped to establish the *Canada Pandemic Plan*, which contains recommendations for health-related activities during the spread of a virus
- joined Toronto Public Health in September, as Associate Medical Officer of Health where she was responsible for the Emergency Services Unit and the Communicable Disease Liaison Unit.

2005

- made Medical Director of Communicable Disease prevention and Control and Public Health Emergency Management at the British Columbia Centre for Disease Control
- past Chair of Immunize Canada
- member of the Canadian National Advisory Committee on Immunization and the National Infection Control Guidelines Steering Committee
- member of the Canadian Pandemic Coordinating Committee responding to pandemic Influenza A virus subtype H1N1 outbreak

2009

- published *Soap and Water & Common Sense: the definitive guide to staying healthy in a germ-filled world*. From viruses to bacteria to parasites and fungi, Dr. Henry takes us on a tour through the halls of Microbes Inc., providing up-to-date and accurate information on everything from the bugs we breathe, to the bugs we eat and drink, the bugs in our backyard, and beyond.

2010

- helped Canada with the planning, surveillance and response to mass gatherings in Canada and internationally, including the 2010 Vancouver Olympic and Paralympic Games

2013

- Executive Director of the British Columbia Centre for Disease Control.
- the operational lead in the Toronto response to the SARS (severe acute respiratory syndrome) outbreak
- member of the executive team of the Ontario SARS Scientific Advisory Committee.

2014

- made Deputy Provincial Health Officer of British Columbia

2018

- appointed as the Provincial Health Officer for British Columbia – first woman ever!
- chaired the pandemic influenza task group that looks to minimise the number of people who become seriously ill during a pandemic, as well as limiting the social disruptions
- called for more efficient electronic systems to understand vaccine uptake, as well as manage Canada's vaccine inventory

2019

- helped to lead British Columbia through a catastrophic wildfire season, which impacted the air quality, as well as advising the Government of Canada on the Influenza A virus subtype H7N9 epidemic.

2020

- involved with coordinating and communicating British Columbia's response to the coronavirus pandemic in British Columbia. *The Globe and Mail* described Henry as "a calming voice in a sea of coronavirus madness".

BC MEDICAL JOURNAL QUESTIONNAIRE: vol. 60, No. 8, Oct. 2018

<https://www.bcmj.org/proust-physicians/proust-questionnaire-dr-bonnie-henry>

What profession might you have pursued, if not medicine?

I was really keen on marine biology in undergrad and would have pursued that if I hadn't gotten into medical school. Thankfully I did get into med school because I later found out I get really seasick, which would have made marine biology a poor career choice!

Which talent would you most like to have?

I would love to be able to sing but am constantly reminded that it is not my strength.

Which living physician do you most admire?

I have been so fortunate to have worked with a number of wonderful physician mentors and leaders including my predecessor, Dr Perry Kendall, whom I admire tremendously.

What do you consider your greatest achievement?

Mentoring and supporting many brilliant young women and hopefully being a positive role model.



What is your idea of perfect happiness?

A glass of wine, a good book, and jazz in the background. That and those exceedingly rare moments during a long run when the pain disappears and I feel the flow; unfortunately those moments are fleeting!

What is your greatest fear?

Personally, developing Alzheimer disease. Professionally, I fear antimicrobial resistance and that we will never find a way to stem the tragedy of overdose deaths we are currently experiencing.

What is the trait you most deplore in yourself?

Procrastination!

What is your favorite activity?

Running, for my mental and emotional health along with the physical. And more recently, yoga.

Which words or phrases do you most overuse?

This too shall pass.

Where would you most like to practise?

I have the best job in the country and am happy right where I am, based in Victoria but with responsibility for the province.

What technological medical advance do you most anticipate?

A cure for Alzheimer disease or, better yet, effective prevention.

What is your most marked characteristic?

I am not very tall! People most often tell me I am always calm (even in a crisis) and talk softly.

What do you most value in your colleagues?

Patience and kindness.

Who are your favorite writers?

Milan Kundera, Ian McEwan, and Madeleine Thien.

What is your greatest regret?

Not being a better communicator to my patients, colleagues, family, and friends.

How would you like to die?

I once worked with the search and rescue team in Comox and we were called to attend someone on the glacier. It was a beautiful, sunny Saturday and an older woman had been out on the mountain hiking with friends. They had just finished a nice lunch and she collapsed and died just as they started down. I have often thought that was a lovely way to go.

What is your motto?

In patience lies wisdom.

**Ballad of Dr. Bonnie Henry by Phil Dwyer in Qualicum Beach:**

<https://phildwyertinajones.bandcamp.com/track/the-ballad-of-bonnie-henry>

BC's Top Doctor Wrote a Book about Fighting Viruses in 2009

Dr. Bonnie Henry proves to be one very prescient provincial health officer.

April 6, 2020 – The Tyee:

<https://thetyee.ca/Culture/2020/04/06/BC-Top-Doctor-Wrote-Book-About-Fighting-Viruses/?fbclid=IwAR2Aig-VX7udIYmJCvq5dm9R9qXYHMfHNIYI7U1ubvPsV4A0SvibJFMvstU>

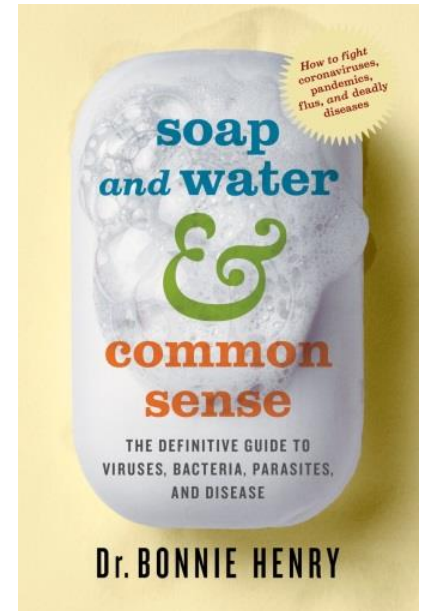
Soap and Water & Common Sense: The Definitive Guide to Viruses, Bacteria, Parasites, and Disease

By Dr. Bonnie Henry

House of Anansi, 2009

Dr. Bonnie Henry's news conferences have become a part of daily life in B.C. When they attend her briefings, Premier John Horgan, Health Minister Adrian Dix and Public Safety Minister Mike Farnworth fade into the background, at a safe distance from her and one another. They speak chiefly to endorse what their chief medical officer says. The contrast with Trump's press conferences is impossible to miss.

It certainly helps that Dr. Henry can deliver alarming news in a calm tone of voice, without relying on technical jargon; we pay attention, we absorb the news, but we don't freak out. Treated like adults, we respond like adults.



Those same communication skills are evident throughout her 2009 book *Soap and Water & Common Sense*, written years before she became B.C.'s provincial health officer. The book is now available with a new introduction, written in March, and the content itself is still very timely: while our health-care system is fighting COVID-19, other diseases are going to exploit their opportunity.

Henry offers a short history of our battles with infectious diseases, using a witty metaphor: "Welcome to the awe-inspiring world of Microbes, Inc., a global corporation that has dominated our planet for three billion years." She then takes us on a tour of company headquarters and its divisions: viruses, bacteria, fungi and parasites. We meet viruses that do indeed go viral, like smallpox (now mercifully retired), influenza, SARS, HIV and Ebola.

The bacteria division is another big profit centre. Despite the successes of antibiotics, bacteria's ability to mutate has enabled the rise of "superbugs," resistant to almost every antibiotic we can throw at them. We've only made life easier for bugs like staphylococcus and streptococcus by using antibiotics where they're useless, like colds. Eventually we could find ourselves back in the pre-penicillin age, when any cut or scratch could be fatal.

Dr. Henry takes us through each vast division of Microbes, Inc., including airborne, waterborne and foodborne bugs. Implicit in her description is a critique of our global mass production of food: "In our search for cheap, tasty and nutritional sources of sustenance combined with our insatiable desire for fresh seasonal foods all year round, we have created increasingly complex and wide-reaching networks that have allowed bugs to thrive and to spread globally."

Ready-To-Sicken Foods

She points out that “Listeria was virtually unknown before the production of ready-to-eat foods. The first recorded outbreak of the disease was in Halifax, Nova Scotia, in 1981. Forty-one people, mostly pregnant women and children, became ill, and 18 died from the disease.” The source: mass-produced coleslaw made from cabbage tainted with sheep manure. The most recent outbreak in Canada lasted from August to November 2019, and affected B.C., Manitoba and Ontario.

International trade includes the export and import of such diseases. Dr. Henry cites the case of Sweden, which had kept salmonella out of its chickens and eggs for decades — until the Swedes joined the European Union and began importing chicken from EU countries with less rigorous standards.

Cheap air travel also has its hazards: In 2005, Dr. Henry tells us, 10 French hunters went bear-hunting in northern Quebec. They killed a black bear and barbecued its meat, and ate it cooked medium or medium rare. Two took bear meat home to share with family and friends. All told, 14 of the hunters and their friends came down with trichinellosis, caused by the parasite trichinella.

Good Budgeting Equals Bad Hygiene

Dr. Henry doesn’t exempt her own profession. Superbugs have found happy homes in countless hospitals around the world, including Canada. One of the nastiest is methicillin-resistant staphylococcus aureus, or MRSA, which causes thousands of deaths every year in Canadian and American hospitals and nursing homes. Eradicating such superbugs is possible, but expensive. Canadian health-care systems, meanwhile, have been underfunded for years; outsourcing hospital cleaning is good budgeting but bad hygiene.

Even cost-conscious hospital design can put patients at risk. As Dr. Henry says, “In some ways it is hard to believe that we place the most vulnerable people in hospital rooms with three or four others who may also suffer from contagious disease, and even ask them to share a washroom.” Single-room facilities, she argues, would actually save money (and lives) in the long run.

Throughout the book, Henry writes clearly and concisely; a 12-year-old could follow her explanations. This is a rare talent among health professionals. Her narrative is full of surprising facts and bits of history: I had no idea that the Iditarod races commemorate a dramatic effort to get antitoxin across Alaska in January 1925 by dog-sled relay to save 25 children in Nome who were dying of diphtheria.

Similarly, I was unaware that Canada was involved in an early test of the 1950s polio vaccine that seemed to show the vaccine was actually giving kids polio. Paul Martin Senior, the health minister of the day, was himself a polio survivor as was his son, a future prime minister. Martin ordered the test to continue, and the problem was later traced to an American lab that had accidentally contaminated a batch of vaccine with live virus.

Dr. Henry’s book is a compendium of microbial horrors that persist into the COVID-19 era and could well benefit from it: pandemics tend to cause more collateral damage than to those who succumb to the disease itself. In the West Africa Ebola outbreak of 2014-16, more people died of measles and other health problems than from the Ebola that made hospitals no-go zones.

The sole criticism of the book is that, apart from the introduction, it seems to be unchanged from the 2009 edition. So we learn about the start of the H1N1 "swine flu" pandemic, but not about its outcome. Since Dr. Henry was very involved with that outbreak, more about it would have been welcome. But now we're looking forward to the book she'll have to write about COVID-19.

Microbes continue to invade us the way we invade new ecosystems, and for the same reasons: to feed, multiply and expand still more. So for all our drugs and vaccines, one of our best preventive strategies remains good old soap and water — and, when we can find it, common sense.

Vancouver Designer John Fluevog Creates Shoe To Honour BC's Top Doctor

Source: <https://www.vancouverisawesome.com/bc-news/dr-bonnie-henry-fluevog-shoes-2257075>

Dr. Bonnie Henry, BC's provincial health officer, has emerged in the COVID-19 crisis as a calm voice of reason...but also as the wearer of some pretty eye-catching shoes.

A fan of Vancouver-based acclaimed footwear designer John Fluevog, Dr. Henry's fans have taken notice of her stylish and eclectic footwear that she has sported in each of her over 50 public briefings on the province's COVID-19 response.



The Dr. Henry Shoe

With Dr. Henry's blessing, Fluevog recently designed a shoe named for her. The Dr. Henry shoe features pink patent leather highlights and Fluevog's distinctive operetta heel with bold stitching accents and a strap. Henry's oft-quoted phrase during her COVID-19 news conferences, "Be kind, be calm and be safe," will be printed on the footsock.

Fluevog counts himself among Dr. Henry's admirers. "At times like these, we're so fortunate to have someone who is calm and comforting but direct, and positive but realistic, informing and education us day to day," said Fluevog. "We always like to find ways to help, and to highlight those who are doing good in our world."

And the kicker is that Dr. Henry is a true Fluevoger. "To hear about and see that our admiration for Dr. Henry was mutual was just a beautiful cherry on top of an already great sundae," added Fluevog.

The pre-sales for the Dr. Henry shoe by Fluevog will be available online only at [Fluevog.com](https://www.fluevog.com). The shoes will retail for \$339, and about 200 pairs will be made in the limited run with a limit of 1 per customer. Part of the *Operetta Family* of shoes, The Dr. Henry fits true to size and will fit an average-width foot nicely. The style will be available in sizes 5 through 12. Production is tentatively scheduled for late August.

If the shoes don't fit, you cannot return or exchange them, as this is a special edition with one hundred percent of profits being donated to Food Banks BC.

Adrian Dix – Minister of Health for Province of BC

Source: https://en.wikipedia.org/wiki/Adrian_Dix

Adrian Dix is a Canadian politician serving as the Member of the Legislative Assembly for Vancouver-Kingsway in British Columbia and the current Minister of Health.



- born in Vancouver on April 20, 1964 to immigrant parents from Ireland and Britain
- raised as an Anglican and grew up in Vancouver with two siblings
- attended St. George's School and Point Grey Secondary
- studied history and political science at the University of BC
- diagnosed with Type-1 diabetes in his 20s
- fluently bilingual, Dix lived in France as a young man and then worked in Ottawa for NDP MP Ian Waddell

1996 to 1999 – served as Chief of Staff to BC Premier Glen Clark

Subsequently, he went on to work as the executive director of Canadian Parents for French in their B.C./Yukon branch. The *Vancouver Sun* summarized his work in this position as "successfully encouraging more school boards to offer French immersion programs."

2001 to 2005 - political commentator in various media, writing a column for the *Victoria Times-Colonist* and *The Source* - also, a contributor to *The Tyee* and the CBC

Since 2005, Dix has served as the MLA for Vancouver-Kingsway and cites among his achievements "bringing insulin pumps to children with Type 1 diabetes and his work on a successful campaign to stop three schools from being closed in Vancouver-Kingsway

- first served as the opposition critic for Children and Families
- then served as the Health critic

2011 to 2014 – Leader of the British Columbia New Democratic Party

- resigned as NDP party leader after losing the 2013 election with the BC Liberals winning a fourth majority government

2020 - currently aged 56 years and lives in Vancouver with his wife Renée Saklikar who is a poet and writer

Adrian Dix by Rob Shaw – April 27, 2020

<https://vancouversun.com/news/politics/rob-shaw-adrian-dix-the-right-guy-in-the-right-job-at-the-right-time/>

VICTORIA — Call him the comeback kid, the cat with nine lives, or the ultimate political survivor. But whatever you think of Adrian Dix, you've probably also concluded recently: He's been a hell of a good health minister during these unprecedented and frightening times.

That's not a surprise to those who know Dix as the detail-oriented workaholic that he is — part politician, part walking encyclopedia. Who better to tackle the government's most complex ministry during the biggest crisis it has ever faced than the guy who clocks ungodly hours, reads every bit of research possible, and captures it all in a near-photographic memory?

But in another, larger sense, it's amazing that Dix is even here at all. He's lived several lives in B.C.'s political arena, and survived against sometimes extraordinary odds. In this most recent incarnation, Dix and provincial health officer Dr. Bonnie Henry have been the guiding forces behind B.C.'s response to the COVID-19 pandemic. Together, they've helped bend the curve of growth, and put the province in one of the best positions in the country.



In the process, Dix has found himself widely praised for his calm demeanour, grasp of an ever-changing file and ability to put partisan politics aside. He regularly includes Green and Liberal MLAs in his decisions. Not even Dix's sharpest critics in Opposition have anything bad to say about him right now. More often, they can be found on social media praising his steady leadership which is all the more remarkable when you think about Dix's history.

Adrian Dix started 30 years ago as the most partisan attack dog you could imagine for the NDP. He was a hyper-aggressive operative in the legislature's back corridors, running with a crew that included a brash young John Horgan. Dix rose to chief of staff for then premier Glen Clark, himself one of the most hyper-aggressive premiers in B.C. history.

It's hard to reconcile that version of Adrian Dix with the calm conciliator we see today in daily public health briefings. But back then, in his early 30s, he gave no quarter to his enemies and suffered no fools in his company. A brilliant and combative young man, he was the NDP's political wunderkind.

And then he took a fall — backdating a memo to protect the premier in a casino licensing scandal, and losing his job. Most thought his career was over. In retrospect, it was just getting started.

Six years later, after stints as a newspaper columnist and leader of a French immersion advocacy agency, Dix re-emerged to win the riding of Vancouver-Kingsway for the NDP in 2005. He parlayed his late-night insomnia-driven research sessions into the opposition's top critic portfolios. A series of Liberal cabinet ministers quickly realized — often too late — that Dix knew more about their portfolios than they did. The health ministry was a particular specialty.

Dix was an easy choice for NDP leader in 2011. He soon put new Liberal premier Christy Clark on her heels, digging up a series of scandals that led to an RCMP probe. Yet his growth from a young backroom partisan into a middle-aged public-facing politician was evident. When he demanded the NDP run its 2013 election campaign on a positive message, with no negative ads or personal attacks, much of the political establishment was stunned at his transformation.

Unfortunately, Dix's "change for the better, one practical step at a time" platform was no match for Clark's polished charisma and over-the-top promises of a "debt-free B.C." driven by liquefied natural gas. She stunned him at the polls with an upset victory.

Then, another fall - and again, most thought the career of Adrian Dix was over, but he refused to ride off into the sunset. Dix resigned as leader, but stayed as an MLA. He simply moved to a smaller office, filled it with different stacks of research material, and picked up where he left off as a critic. His subsequent work on files like the Insurance Corp. of B.C. and B.C. Hydro helped give much-needed ammunition to new NDP Leader John Horgan.

When the NDP toppled the Liberals to form government in 2017, Horgan turned to his friend of more than 30 years to run the most expensive and complicated ministry in government.

"I've got a picture on my desk at home of him holding my first born, now 32-year-old son, in his arms," Horgan told CTV News recently. "I gave Adrian my baby and had full confidence. I have full confidence he'll manage our health-care system and manage this pandemic in the days and weeks ahead."



Dix said Horgan has taught him how to be a leader. "One of my main tasks is to make sure a really outstanding team, led by (deputy health minister) Steve Brown and Bonnie Henry, has the room it needs to make a decision," he said. "I'm a detail-oriented person but the right leadership approach is to step back and let the leadership team perform."

Adrian Dix holds the first-born son of John Horgan, 32 years ago. The premier and health minister are long-time friends.

"Sometimes the best critics don't make the best ministers — I'm very aware of that," Dix added. "When you get here, it's a very large health system and other people have to have strength and authority. And I think that probably reflects the most learning

I've done, which is allowing other people to do the work, benefiting from their expertise, and giving them a chance to do what we need to do."

His ability to work with Opposition Liberals and Greens during the crisis is an extension of his shift away from negativity in 2013. That mellowing may also be the result of a man, now 56 years of age, whose ups and down in the political system have rounded off his edges. "I'm a very partisan person, don't get me wrong — I was leader of the NDP after all," said Dix. "But I think to be constantly partisan is to be too narrow. And there are some things that we can work together on. And that's benefited us."

The long journey through many political incarnations is not lost on Dix. "I think I've learned a lot," he said. "My understanding of the way I am with people is better. What hasn't changed, is the drive I get from the place I live."

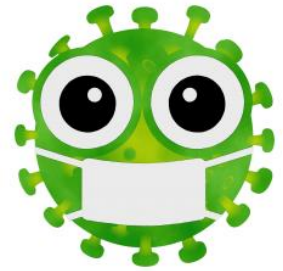
The pace of work during a pandemic though, is crushing, even for someone with a track record like Dix. Every day, between noon and 2 p.m., he and Dr. Henry sit in his office and analyze the previous day's reported COVID-19 cases in advance of their lengthy 3pm news conferences.

And then, every day, after the briefings are done and the afternoon is closing, Dix picks up the phone and starts calling people: Constituents, Community leaders, People from his church community (Dix is Anglican and his wife's father was a United Church minister in New Westminster). He asks them how it's going, and listens to their stories. "If you are not careful you can become isolated from people and their experiences," he said.

His last call is always to wife Renee Saklikar, a lawyer turned poet who he says continues to be the most positive thing in his life. She's at home in Vancouver while he spends most days in Victoria overseeing the COVID-19 response from the legislature.

Eventually, he heads to bed. The old insomniac Dix who survived on two to three hours of sleep a night is no more. These days, he says he gets a solid six hours, most of the time. In the end, Adrian Dix wasn't the premier British Columbians wanted in 2013. But he's lasted long enough to become the health minister they desperately needed in 2020.

COVID-19 = COronaVIRus Disease 2019



COVID is not a flu - not even a little! Here are reasons why:

1. **It is a separate species.** It is no more like influenza than you are like a hippo. DIFFERENT SPECIES.

2. **It is an airborne virus.** This means the tiny droplets can stay in the air for a full 2 hours. So if a person coughed in aisle 4 of Target 1.5 hours ago, they may be home now but their covid cloud is still hanging there just waiting for you to walk by and take a breath. Influenza is not an airborne virus. It is droplet spread- meaning someone has to directly crop dust you with their sneeze to get you sick. Covid is much more contagious.

3. **Covid is more virulent.** Virulence factor is a measure of how catchy something is. For example, the flu is like beer. It takes a bunch to get you drunk. Covid is more like tequila - A little goes a long way. You need to suck up a lot of flu particles to actually catch the flu; with covid, even a few particles is enough to infect you.

4. **Covid has a longer incubation than the flu.** When you catch the flu, you typically get sick in the next 1-2 days. This is awesome because it means you stay at home while contagious because you feel like a heap of fried garbage. Covid has a blissful 5-9 days of symptom free time during which you are well enough to head to the movies, gym or mar-a-lago while also being contagious enough to infect everyone you encounter.

5. **Covid has a longer duration of illness than flu.** With Covid, you have a 5-9 days of blissful asymptomatic contagiousness. This then turns into about 1 week of cough and overall feeling like hell but still surviving. Week 2 is when things hit the fan and people end up unable to breathe and on a ventilator. Many stay on the vent for up to 15 days. 5 days incubating+7 kinda sick days + 15 days on a ventilator makes for 27 days of virus spreading illness, (assuming you don't just die of massive asphyxiation and body-wide collapse from overwhelming infection somewhere in that last week). The flu has an average incubation of 1-2 days and sick time of 7 days for a total of 9 infectious days. In the world of deadly viruses, that 18 extra days might as well be a millennia.

6. **Covid is more deadly** – a LOT more deadly! The flu has about a 0.2% mortality rate, meaning 2 of every thousand people who get sick with flu will die. On the contrary, the death rate from Covid is reportedly 2%, so 10 times more deadly than flu. Ten times more death seems like a lot more death to me. What's more worrisome is that 2% is actually incorrect because it doesn't kill kids so that skews the average. With Covid, age is a major factor in survival. If we don't include people under 30, the death rate for adults is on average 4.5%. Nine out of every 200 adults that get this will die from it. Do you know 200 adults? Do you think losing 9 of them is no big deal? Since mortality increases with age in Covid, the risk gets worse as you get older, so if we put 100 grannies in a room with Covid, only 85 would make it out alive to make pies and tell great stories of the old days... and that just sucks.

In conclusion:

- Covid is in no way a flu,
- You are in no way a hippo,
- Staying home is the only way for non-essential people to do their part

How long the new coronavirus can live on surfaces

SURFACE	LIFESPAN OF COVID-19 VIRUS
 Paper and tissue paper**	3 hours 
 Copper*	4 hours 
 Cardboard*	24 hours 
 Wood**	2 days 
 Cloth**	2 days 
 Stainless steel*	2–3 days 
 Polypropylene plastic*	3 days 
 Glass**	4 days 
 Paper money**	4 days 
 Outside of surgical mask**	7 days 

*At 69.8 to 73.4°F (21 to 23 °C) and 40% relative humidity

**At 71°F and 65% relative humidity

Source: New England Journal of Medicine*; The Lancet Microbe**

BUSINESS INSIDER

CORONA VIRUS LABORATORY TESTS

Molecular tests

- look for signs of an active infection
- usually involve taking a sample from the back of the throat with a cotton swab and sent off for testing
- sample undergoes a polymerase chain reaction (PCR) test to detect signs of the virus's genetic material.
- Confirmed diagnosis of COVID-19, if test identifies two specific SARS-CoV-2 genes
- If only one of these genes are identified, this produces an inconclusive result

Molecular tests can only help diagnose current cases of COVID-19. They cannot tell whether someone has had the infection and since recovered.



Serological tests

- usually requires a blood sample.
- detect antibodies that the body produced to fight the virus and are present in anyone who has recovered from COVID-19
- antibodies exist in blood and tissues throughout the body.

Serological tests are particularly useful for detecting cases of infection in people with mild or no symptoms.

For more info: <https://www.medicalnewstoday.com/articles/coronavirus-testing#how-does-it-work>

April 2, 2020 - COVID-19: Could TB vaccine offer protection?

https://www.medicalnewstoday.com/articles/covid-19-could-tb-vaccine-offer-protection?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-03&apid=32290074

April 2, 2020 - Humidity May Affect COVID-19 Outcome

https://www.medicalnewstoday.com/articles/how-humidity-may-affect-covid-19-outcome?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-03&apid=32290074#4060%-humidity-may-be-ideal

April 2, 2020 - Rapid Blood Tests – Why is Canada Taking so Long?

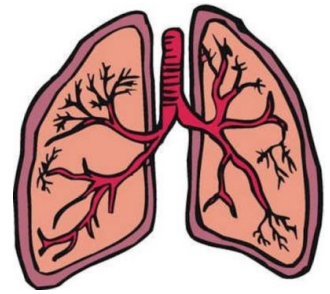
https://www.cbc.ca/news/health/rapid-blood-test-await-approval-in-canada-1.5518485?cmp=newsletter_CBC%20News%20Morning%20Brief_890_14982

April 6, 2020 - Canada's Top Doctor Says Non-Medical Masks Can Help Stop The Spread Of COVID-19

<https://www.cbc.ca/news/politics/non-medical-masks-covid-19-spread-1.5523321>
"A non-medical mask can reduce the chance of your respiratory droplets coming into contact with others or landing on surfaces," Tam said. "The science is not certain but we need to do everything that we can and it seems a sensible thing to do." Wearing a mask is an added layer of protection that can help prevent pre-symptomatic and asymptomatic people from inadvertently infecting others with COVID-19. Non-medical masks have limitations and need to be used safely. If you choose to use a non-medical face mask, the agency recommends you wash your hands before putting it on and after taking it off. Face masks can become contaminated on the outside or when they're touched by hands and the agency recommends you change your cloth masks as soon as they get damp or soiled. It is felt that keeping your distance and washing your hands is still the best line of defense against the corona virus.

April 8, 2020 - Some Doctors Moving Away From Using Ventilators

Sources: <https://apnews.com/8ccd325c2be9bf454c2128dcb7bd616d> and https://www.cbc.ca/news/world/ventilators-covid-overuse-1.5534097?cmp=newsletter_CBC%20News%20Morning%20Brief_1002_19895



The usual recommended use of ventilators at high pressure that works for standard respiratory distress cases may actually harm some COVID-19 patients like those suffering from ARDS (Acute Respiratory Distress Syndrome) who have below-normal levels of oxygen in their blood which leads to breathing problems.

In ARDS cases, the lungs lose their elasticity. But in many cases of COVID-19, the lungs remain elastic and people are able to continue breathing for some time despite the low oxygen levels.

Some health professionals have wondered whether ventilators might actually make matters worse in certain patients, perhaps by igniting or worsening a harmful immune system reaction. That's speculation, but experts do say ventilators can be damaging to a patient over time, as high-pressure oxygen is forced into the tiny air sacs in a patient's lungs.

"We know that mechanical ventilation is not benign," said Dr. Eddy Fan, an expert on respiratory treatment at Toronto General Hospital. "One of the most important findings in the last few decades is that medical ventilation can worsen lung injury — so we have to be careful how we use it."

Patients with normal looking lungs, but low oxygen are at risk of lung injury from the ventilators, where pressure from the air damages the thin air sacs that exchange oxygen with the blood.

Doctors started with a one-size-fits-all attitude, which didn't pay off and they soon found out that the practice of putting patients on ventilators right away, often made their condition deteriorate.

The dangers can be eased by limiting the amount of pressure and the size of breaths delivered by the machine, Fan said.

Only a few weeks ago in New York City, coronavirus patients who came in quite sick were routinely placed on ventilators to keep them breathing, said an emergency medicine doctor who works in Manhattan hospitals.

Increasingly, physicians delay intubation as much as possible and try other non-invasive ventilation measures first. One method is having patients lie in different positions, including on their stomachs, to allow different parts of the lung to aerate better. Another method is giving patients more oxygen through nose tubes or other devices. This helps people in the early stages of the disease to inhale enough oxygen without damaging their lungs.



Some doctors are experimenting with adding nitric oxide to the mix, to help improve blood flow and oxygen to the least damaged parts of the lungs.

If we're able to make them better without intubating them, they are more likely to have a better outcome — we think.

April 13, 2020 - New study questions effectiveness of masks against COVID-19

The study concludes that surgical masks and reusable cloth masks are both “ineffective in preventing the dissemination” of COVID-19. To find out more about this study:

<https://www.medicalnewstoday.com/articles/new-study-questions-the-effectiveness-of-masks-against-sars-cov-2>

April 15, 2020 - Forest Loss Could Make Diseases Like COVID-19 More Likely

Viruses that jump from animals to people, like the one responsible for COVID-19, will likely become more common as people continue to transform natural habitats into agricultural land, according to a new study. People have converted nearly half of the world’s land into agriculture. Tropical forests have suffered the most, with some of the highest rates of agricultural conversion over the last few decades. The loss of tropical forests in Uganda puts people at greater risk of physical interactions with wild primates and the viruses they carry. A prime example is HIV, which is caused by a virus that jumped from wild primates to humans via infected bodily fluids. At the end of the day, land conservation and the reduction of forest fragmentation is our best bet to reduce human-wild animal interactions.

<https://www.weforum.org/agenda/2020/04/forest-loss-diseases-covid19-coronavirus-deforestation-health>

April 16, 2020 - Digestive Symptoms are common with COVID-19

New research into data from more than 200 people who received medical care for COVID-19 reveals that almost half of this group experienced digestive symptoms, such as loss of appetite and diarrhea which suggests that such symptoms may be more widespread than specialists had thought.

https://www.medicalnewstoday.com/articles/covid-19-digestive-symptoms-are-common?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-16&apid=32290074#Digestive-symptoms-in-50.5%-of-patients

April 16, 2020 - From Pandemic to Endemic

How long is this likely to last? When will it be over? Some researchers are optimistic that a vaccine will be available much sooner than the often quoted 12–18 months mark, as the vaccine could get be fast-tracked with approval under emergency use legislation. Other experts have raised the possibility that this pandemic will lead to SARS-CoV-2 becoming endemic — meaning that the virus will stay with us forever. HIV emerged in the early 20th century and then became endemic throughout the world.

https://www.medicalnewstoday.com/articles/covid-19-how-long-is-this-likely-to-last?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-17&apid=32290074

April 17 - COVID-19 and Pets

So far, there have been only three officially confirmed cases of pets with SARS-CoV-2 infections worldwide. Hong Kong authorities reported two of these, and they were both in dogs.

The first official report of a pet affected by SARS-CoV-2 was that of a 17-year-old Pomeranian that tested “weak positive” for the infection and the dog did not present any symptoms of illness.

The second case reported in Hong Kong was that of a German Shepherd whose owner submitted it for testing alongside another dog from the same household. While the German Shepherd tested positive for infection with SARS-CoV-2, the second dog did not, and neither canine exhibited any signs of being unwell.



According to Hong Kong officials, both the Pomeranian and the German Shepherd likely contracted the virus from their owners, who had tested positive for COVID-19. In each case, the Agriculture, Fisheries and Conservation Department (AFCD) of Hong Kong spokesperson emphasized that “there is currently no evidence that pet animals can be a source of COVID-19 for humans or that this virus can cause the disease in dogs.”

The third official report about an animal infected with SARS-CoV-2 came from scientists from the Faculty of Veterinary Medicine of the University of Liège in Belgium, who detected viral SARS-CoV-2 RNA in the feces and vomit of a domestic cat. This cat also presented digestive and respiratory symptoms. Because the cat’s owner had tested positive for COVID-19, it seems likely that this, too, was a case of human-to-animal transmission.

One study has investigated whether various domestic animals (including cats and dogs) can contract SARS-CoV-2 and it concluded that cats can become infected with the virus, and they can also pass it on to other cats and it made similar findings about ferrets. However, the researchers reported that the virus appears to be less likely to spread in dogs, as well as in pigs, chickens, and ducks.

Currently, the experts advise that people should treat their animal companions like any other human family member ideally preventing them from interacting with people or animals outside the household. If a person inside the household becomes sick, isolate that person from everyone else, including pets.

Further advice suggests to keep cats indoors, as much as possible, and to keep dogs on a leash while walking them, maintaining the same advised physical distance of at least 6 feet (2 meters) from any other people or animals. Also, avoid dog parks or public places where a large number of people and dogs gather.

In summary, the current spread of COVID-19 is a result of human-to-human transmission. As of April 17th, there is no evidence for pet-to-human transmission.

https://www.medicalnewstoday.com/articles/covid-19-and-our-pets-what-is-there-to-know?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-17&apid=32290074

April 28, 2020 – Pug in North Carolina tests Positive for Corona Virus

https://www.nytimes.com/2020/04/28/us/dog-coronavirus-positive-test.html?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-29&apid=32290074

April 17, 2020 - Disinfecting Shoes – A “How To” for COVID-19 Prevention

Shoes are one of the main points of contact in public places. Studies suggest that SARS-CoV-2 could remain infectious on shoes made from plastics, leather, and synthetic materials for several hours — or even a few days. Viruses can attach to shoes and remain infectious there for several hours. This is especially true when people walk around in crowded areas, such as grocery stores, and use public transport.

If a person needs to visit the grocery store or go to work, they should choose one pair of shoes for leaving the house. When returning home, people should remove their shoes before entering the house and store them in a separate area, such as a garage or entryway. Essential workers and other individuals who have to leave their homes should choose a single pair of shoes for leaving the house.



Before entering a house, a person should remove their shoes and socks. If possible, they should leave those shoes in a garage or entryway, so that they are separated from the rest of the household, or place their shoes in a sealed plastic bag.

Consider the following guidelines for cleaning and disinfecting shoes:

- Wipe the exterior surfaces and soles of the shoes with a disinfecting wipe.
- Soaking shoes in hot water and soap is another effective disinfection method.
- Wash machine washable or cloth shoes using hot water coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts">(60–90°C, or 140–194°F) and detergent or soap.
- If the machine has a sanitize setting, use it.

<https://www.medicalnewstoday.com/articles/how-to-disinfect-shoes#how-to-disinfect-shoes>

April 18, 2020 - Air Pollution May Affect Lethality of COVID-19

New research suggests that air pollution may have an effect on the number of people who die from COVID-19. Official figures from the Italian government show a significant variation in the lethality of the virus, depending on geographic areas: northern regions of Italy, such as Lombardy or Emilia Romagna, saw a lethality rate of 12%. In the rest of the country, the lethality rate was around 4.5%. These two areas have a significantly higher death rate from COVID-19 also have some of the worst air pollution levels, not just in Italy, but across all of Europe. However, this does not necessarily mean that one causes the other. Air pollution represents one of the most well-known causes of prolonged inflammation, eventually leading to an innate immune system hyper-activation. Air pollution damages the cilia in a person's lungs. Cilia, which are microscopic, hair-like organelles, are one of the first lines of defense against airborne infection.

https://www.medicalnewstoday.com/articles/air-pollution-may-affect-the-lethality-of-covid-19?utm_source=Saithru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-20&pid=32290074

April 18, 2020 - Anti-body test suggests Corona Virus more widespread than thought

A new study in California has found the number of people infected with coronavirus may be tens of times higher than previously thought. The study was conducted by identifying antibodies in healthy individuals through a finger prick test, which indicated whether they had already contracted and recovered from the virus. Volunteers for the study were recruited through Facebook ads, which researchers say were targeted to capture a representative sample of the county's demographics and geography. At the time of the study, Santa Clara county had 1,094 confirmed cases of Covid-19, resulting in 50 deaths. But based on the rate of participants who have antibodies, the study estimates it is likely that between 48,000 and 81,000 people had been infected in Santa Clara county by early April. That also means coronavirus is potentially much less deadly to the overall population than initially thought. The study has been interpreted by some to mean we are closer to herd immunity – the concept that if enough people in a population have developed antibodies to a disease that population becomes immune – than expected; but it doesn't mean the shelter-in-place order will be lifted any time soon. Even with the adjusted rate of infection, as found by the study, only 3% of the population has coronavirus – that means 97% does not. To reach herd immunity a significant portion of the population would have to be infected and recovered from coronavirus. We do not know if antibodies protect you and for how long, and a very small percentage of the population even has antibodies

https://www.theguardian.com/world/2020/apr/17/antibody-study-suggests-coronavirus-is-far-more-widespread-than-previously-thought?CMP=fb_gu&utm_medium=Social&utm_source=Facebook&fbclid=IwAR2PvTLyCjg3oV-fm4EAiJW8al1L7N7JL-hB-JIAZ1SfRRy5fD6TTkye-Lq#maincontent

April 23, 2020 – Sudden Strokes in Young Adults with COVID-19

There is growing evidence that Covid-19 infection can cause the blood to clot in unusual ways, and stroke would be an expected consequence of that, in adults in their 30s and 40s who are not otherwise terribly ill. The virus seems to be causing increased clotting in the large arteries, leading to severe stroke. Remember FAST: Face, Arm, Speech, Time

https://www.cnn.com/2020/04/22/health/strokes-coronavirus-young-adults/index.html?utm_medium=social&utm_content=2020-04-23T00%3A00%3A28&utm_source=fbCNN&utm_term=link



April 24, 2020 - Relationship between Obesity and COVID-19 Severity

A recent study identified a high frequency of obesity among patients admitted in intensive care for [COVID-19]. Individuals with a higher Body Mass Index tended to experience more severe symptoms. Obesity is a risk factor for this corona virus and requires increased attention to preventive measures.

https://www.medicalnewstoday.com/articles/live-updates-coronavirus-covid-19?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-20&apid=32290074#3

April 24, 2020 – Healthy Patients in 30's and 40s, barely sick, dying from stroke!

Reports of strokes in the young and middle-aged are the latest twist in our evolving understanding of the mysteries of COVID-19. The analyses suggest coronavirus patients are mostly experiencing the deadliest type of stroke. Known as large vessel occlusions or LVOs, they can obliterate large parts of the brain responsible for movement, speech and decision-making in one blow because they are in the main blood-supplying arteries.

Many researchers suspect strokes in novel coronavirus patients may be a direct consequence of blood problems that are producing clots all over some people's bodies.

https://www.boston.com/news/coronavirus/2020/04/24/covid-19-strokes?fbclid=IwAR1CY1Ok66vgq5gmjG1mYtIofly-imVrFXjEHNSJcNNIh_zdnrGkZXRKro

French Hospital Stops Hydroxychloroquine Treatment For Covid-19 Patient Over Major Risk to Cardiac Health

An electrocardiogram measures the electrical activity in the heart and the recordings of patients involved with this trial were being constantly monitored.

Hydroxychloroquine blocks one of the channels that controls the heart's electrical recharging systems. This interference increases the possibility that the heart's rhythm could degenerate into dangerous erratic heart beats, resulting ultimately in sudden cardiac death.

Hydroxychloroquine on its own presents only a small cardiac risk. However, when given alongside the antibiotic azithromycin, with which it is being prescribed in combination for the treatment of coronavirus, the risk increases. For some patients being treated with these drugs, the remedy is more harmful than the disease itself.

<https://www.newsweek.com/hydroxychloroquine-coronavirus-france-heart-cardiac-1496810>

Rare COVID symptoms: painful headache, diarrhea, nausea, stomach discomfort, loss of sense and smell, lack of appetite, disorientation and even seizures.

https://www.cbc.ca/news/health/covid-atypical-symptoms-1.5525275?cmp=newsletter_CBC%20News%20Morning%20Brief_934_17164

Asthma and COVID – 19

- A person with asthma can reduce their chances of developing severe illness from COVID-19 by keeping their asthma under control, practicing social distancing, and following infection prevention guidelines.
- People with asthma may not be at a higher risk of contracting COVID-19, but they may be at higher risk of complications if they do develop it.
- At present, there is no evidence indicating that people with asthma are experiencing more severe complications than those who do not have asthma.
- A limited amount of evidence also indicates that people with asthma and COVID-19 are recovering.
- People with asthma must continue taking their asthma medication as their doctor prescribes. Uncontrolled asthma can put people more at risk of respiratory problems and complications from COVID-19.



For more info: https://www.medicalnewstoday.com/articles/covid-19-asthma?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-09&apid=32290074#summary

Diabetes and Covid-19

Diabetes is a chronic metabolic condition that causes high blood sugar levels and diabetics might be at a higher risk of severe illness from COVID-19. One reason for this is that the immune system does not work as well in people with diabetes, which makes it harder for their body to fight the virus. Also, the novel coronavirus “may thrive in an environment of elevated blood glucose.” Diabetes also keeps the body in a low-level state of inflammation, which makes its healing response to any infection slower. High blood sugar levels combined with a persistent state of inflammation makes it much more difficult for people with diabetes to recover from illnesses such as COVID-19.

Anyone with diabetes who notices symptoms of COVID-19 should speak to their doctor as soon as possible.

https://www.medicalnewstoday.com/articles/covid-19-and-diabetes?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-02&apid=32290074#outlook

Corona Virus Once In A Lifetime Chance To Re-Shape How We Travel

<https://theconversation.com/coronavirus-is-a-once-in-a-lifetime-chance-to-reshape-how-we-travel-134764>

No Evidence that Recovered COVID-19 Patients Cannot be Re-Infected

<https://www.weforum.org/agenda/2020/04/no-evidence-that-recovered-covid-19-patients-cannot-be-reinfected-who>

April 27, 2020 – Vaccine Ready for the Fall

The Ebola drug continues to show promise by blocking the enzymes that allow the virus to replicate.

https://www.medicalnewstoday.com/articles/covid-19-vaccine-may-be-ready-by-fall-and-other-reasons-for-hope?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-27&apid=32290074



Men More Than Twice As Likely To Die From COVID-19 As Women

https://www.medicalnewstoday.com/articles/mnt-134418?utm_source=Sailthru%20Email&utm_medium=Email&utm_campaign=newsAlerts&utm_term=coronavirus&utm_content=2020-04-15&apid=32290074#Infection-rates-in-womenand-men

Global Health 5050, an organization that promotes gender equality in healthcare, has rounded up the total and partial data that is available from the countries with the highest numbers of confirmed COVID-19 cases. According to their data gathering, the highest ratio of male to female deaths, as a result of COVID-19, is in Denmark and Greece: 2.1 to 1.

In **Denmark**, 5.7% of the total number of cases confirmed among men has resulted in death, whereas 2.7% of women with confirmed COVID-19 have died. In the **Republic of Ireland**, the male to female mortality ratio is 2 to 1. While **Italy** and **Switzerland**, each have a 1.9 to 1 ratio each.

The greatest parity between the genders from countries that have submitted a full set of data are Iran and Norway. In **Iran**, 5.4% of the women patients have died compared with 5.9% of the men. In **Norway**, these numbers stand at 1.3% and 1.1%, respectively. **China** has a ratio of 1.7, with 2.8% of women having died, compared with 4.7% of men.

Why Are Men More Likely To Die?

Part of the explanation for why the new coronavirus seems to cause more severe illness in men is down to biological sex differences. Women's innate immune response plays a role.

Experts agree that there are sex differences, such as sex chromosomes and sex hormones that influence how a person's immunity responds to a pathogen. In general, women are able to mount a more vigorous immune response to infections and vaccinations.

With previous coronaviruses, specifically, some studies in mice have suggested that the hormone estrogen may have a protective role. In this study, the authors noted that in male mice there was an "exuberant but ineffective cytokine response." Cytokines are responsible for tissue damage within the lungs and leakage from pulmonary blood vessels.

Estrogens suppress the escalation phase of the immune response that leads to increased cytokine release. The authors showed that female mice treated with an estrogen receptor antagonist died at close to the same rate as the male mice.

As some researchers have noted, lifestyle factors, such as smoking and alcohol consumption, which tend to occur more among men, may also explain the overall higher mortality rates among men.

Science has long linked such behaviors with conditions that we now know are likely to negatively influence the outcome of patients with COVID-19 — cardiovascular disease, hypertension, and chronic lung conditions.

Why Women Might Be More At Risk

The fact that societies have traditionally placed women in the role of caregivers — a role which they continue to fulfill predominantly — and the fact that the vast majority of healthcare workers are women could place them at a higher risk of contracting the virus and might explain the higher infection rates in some countries. An analysis of 104 countries by World Health Organization found that women represent around 70% of the health workforce. In China, women make up more than 90% of healthcare workers in Hubei province.

The Handshake:

The handshake dates back thousands of years, and some historians believe it to be a gesture of peace to reveal that the hand was not carrying any weapons.

Another theory postulated, it was to seal a promise or an oath. It may have become popularized by the 17th century by Quakers, who viewed a simple handclasp as a more egalitarian alternative to bowing or tipping a hat.



Now, it's commonly used as a social greeting ritual, particularly in Western cultures, but also all across the world. It has come to symbolize the finalization of business deals, or become important symbolic political gestures, especially between geopolitical rivals seeking peace.

It has this psychological signal that it sends, which is that the person who is offering their hand is indicating that they're willing to engage in some sort of business contacts with you and a willingness to be co-operative.

But rituals like the handshake can become difficult to change because they become so deeply ingrained in a society and end up being signals of one's membership in the group. If there's no clear replacement that the entire society gets on board with, like 'now we're doing elbow taps,' then as soon as the lockdown ends ... people may just go back to the handshake.

Some believe the handshake is just too ingrained to disappear forever and any new greeting to emerge will be an interim replacement gesture. A new ritual could be created to signify a similar greeting. "Like, 'Hi. Nice to meet you,' then there might be a laugh. There might be sort of a move for a handshake, but then the step back, and be like these little dances that get created."

If a vaccine is discovered, people may just go back to the handshake. It's not easy to change such a deeply embedded cultural ritual.

I think we need collectively to educate people — about why even after this pandemic is over, a handshake is a really bad idea. Shaking hands is absolutely one of the leading risk factors for transmitting or acquiring microbial infection. Micro-organisms that might cause infections can live on the surface of the hand, especially the palm of the hand. When someone shakes hands, those microbes may be transferred from the skin of one person to the skin of the other. That by itself is usually harmless, but the threat comes when a person who has just received that germ then touches their face and allows those microbes to get into the mouth and nose, or eyes, he said.

"Why take the risk? Try out these gestures to replace the handshake:

- Elbow Taps
- Fist bumps,
- Bows
- Foot shaking

https://www.cbc.ca/news/health/handshake-coronavirus-elbow-bumping-public-health-1.5536234?cmp=newsletter_CBC%20News%20Morning%20Brief_1020_20967

The **end** of the handshake?



HOW DOES YOUR IMMUNE SYSTEM WORK?

<https://www.weforum.org/agenda/2020/04/immune-system-fight-off-disease-coronavirus-covid19-pandemic>

Until a vaccine is available, our immune systems will need to adapt unaided to COVID-19. The immune system is the body's multi-level defence network against potentially harmful bacteria, viruses and other organisms. A healthy lifestyle helps one's immune system to be in the best shape possible to tackle pathogens, but it's better to stop them entering the body in the first place. The coronavirus pandemic has turned the world's attention to the immune system, the body's defence force against disease-causing bacteria, viruses and other organisms that we touch, ingest and inhale every day.

Your body's immune system is a force to be reckoned with! Think of it as the body's personal army working from the cellular to macro level. Each cell, molecule, tissue and organ in this army plays a vital role in warding off invading pathogens, and also helps guard against internal threats like cancer.

The immune system has two types of response:

1. **Innate** - the body's natural barriers against disease-causing intruders: our skin, the mucous and hairs in our nose, and the acid in our stomachs.
2. **Adaptive** - develops over a lifetime of contact with pathogens and vaccines, preparations which help our immune systems to distinguish friend from foe

Vaccination safely teaches our adaptive immune systems to repel a wide range of diseases, and thus protect ourselves and others. There is currently no vaccine for coronavirus, and we may not see one for 18 months or longer. For now, our immune systems must adapt unaided to this potentially deadly threat.

STRENGTHEN YOUR IMMUNE SYSTEM:

<https://www.ctvnews.ca/health/self-care-how-to-strengthen-your-immunity-amid-coronavirus-outbreak-1.4869025> and
<https://www.growingbolder.com/5-tips-to-boost-your-immune-system-3065912/>

There is a global sense of fear, uncertainty and helplessness as we all face the same invisible enemy, COVID-19. However, we all possess a secret weapon against this threat—our immune system.

MOVE OFTEN

Movement is medicinal. Lower to moderate intensity movement can decrease stress levels, release dopamine (the feel-good hormone), oxygenate the body, and sweat out toxins. Do you feel run down or unmotivated? Don't overdo it. You can start small with a walk or bike ride and see how you feel afterward. I guarantee you won't regret taking some me-time to boost your mood with exercise.

Engaging in regular physical activity is a great way to help manage stress and strengthen your immune system. In fact, research shows that "fit individuals" -- defined as those who partake in regular physical activity -- have a lower incidence of infection compared to inactive and sedentary individuals. What's more, being physically active may help reduce the risk of chronic diseases that could further weaken your immune system, including cardiovascular disease, diabetes and obesity.

How does exercise help?

For one, physical activity helps to flush bacteria out of the lungs, decreasing your chances of getting a cold, flu or other illness. Exercise also reduces levels of the body's stress hormones, such as adrenaline and cortisol. Lower levels of stress hormones may protect against illness.

Exercise also stimulates the production of endorphins -- chemicals in the brain that are the body's natural painkillers and mood elevators.

And remember the joy of dancing! Blast out your favorite tunes and engage in a dance party for a wonderful mood-lifting indoor activity, no equipment required.

If you are looking for something a bit more structured, there are plenty of online options to choose from. Free on-demand programs are also available at [YMCA360.org](https://www.ymca360.org), and include boot camp, Barre, yoga and low-impact programs for seniors.

MEDITATE

If you haven't tried meditation, now might be a good time to start. A stressful circumstance like what we are experiencing now can negatively affect the immune system, but a consistent meditation practice can help us better respond to stressful situations. Life is messy, and although meditation isn't a cure all it can help us to remember to breathe and that we'll never be able to clean it all up.

To start meditating, simply bring your full attention to your breath. Sitting with uplifted posture may help, and eyes may be closed or open. When you notice your mind wanders with thoughts like, "What am I going to have for lunch?" come back to your breath without judgment.

When meditating, it's a good idea to aim for consistency when it comes to the style of meditation; the time of day and length of your practice; and your surroundings. You might choose your favorite spot on the couch or a designated corner with a meditation cushion.

Once you've been practicing for a while and have learned how to choose between your breath and your thoughts, you can "apply that same mechanism of choice to your response to stressful situations. Most studies show you need to practice a minimum of 10 minutes a day for 8 to 10 weeks to see the benefits over time.

DRINK LOTS OF WATER.

The average human body is made up of about 60% water. Water is used for every process and function, including maintenance and survival! The body can survive up to 40 days without food, but only seven days without water.

Did you know that the body uses as much water during sleep as when you are awake? Translation? We need lots of it! Drinking enough water helps your body naturally flush and eliminate toxins and bacteria that may cause illness.

Consider using a reusable water bottle and tracking how many times you finish and refill it throughout the day. Bonus, this is a sustainable practice because it means fewer glasses to wash throughout the day and no plastic water bottle waste.

AVOID SUGAR AND HIGHLY PROCESSED FOODS

Did you know that sugar suppresses the body's immune response for up to five hours after ingesting it? Sugar reduces the ability of white blood cells to kill pathogens (germs), therefore lowering your immune defense. Because of this, we need good, clean fuel for our bodies to work at optimal levels. So think twice about baking those cookies while cooped-up during quarantine. Green smoothies anyone?



MINIMIZE STRESS

Research dating back over 25 years has revealed that psychological stress increases susceptibility to illness. Prolonged or chronic stress can negatively impact the immune system by reducing the body's ability to defend against viruses and bacteria.

When the human body is stressed, it responds by secreting a hormone called cortisol. In fight or flight situations, this is a good thing because it increases heart rate and opens veins for greater blood flow so that you can react quickly to danger. However, when the body is constantly exposed to cortisol because of heightened levels of fear and anxiety, this leads to greater levels of inflammation. And what happens when you are constantly inflamed? An overworked, over-tired immune system results! Fear and stress lead to increased susceptibility to illness and infection. Try to set the electronic devices down and limit media consumption of content that makes you worry. As Peter Pan says, "Think happy thoughts."

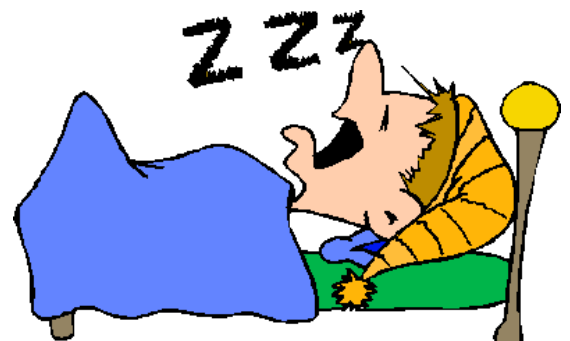
When under stress, it's not uncommon for people to engage in coping strategies such as drinking excessive alcohol, smoking cigarettes, eating a poor diet, or not getting enough sleep, which can also negatively impact the immune system.

GET ENOUGH SLEEP

We all know that doctors recommend adults get 7-9 hours of sleep each night. But did you know research shows that getting deep and consistent sleep actually improves immune function? Adequate sleep specifically improves your immune cells, also known as T cells. In addition, Human Growth Hormone (HGH) is released during the body's deep sleep cycles, which helps repair and rebuild tissue.

But if your mind has been keeping you up or you simply can't get that amount, fill in the gaps with naps. According to the National Sleep Foundation, taking two naps that are no longer than 30 minutes each — one in the morning and one in the afternoon — has been shown to help decrease stress and offset the negative effects that sleep deprivation has on the immune system. If that's not realistic, a 20-minute catnap during a lunch break or before dinner can help too.

Can't go to sleep? Try turning off electronic devices at least one hour before getting some shut-eye. Exposure to the blue light from electronics suppresses the release of melatonin, a sleep-inducing hormone, making it more difficult to fall asleep. Build a stronger immune system in your sleep, literally!



CLEANSE YOUR LUNGS

<https://www.healthyandnaturalworld.com/the-best-foods-to-cleanse-your-lungs/>

Our lungs play a vital function in our respiratory system by taking in oxygen and filter out toxins from the air. Keeping your lungs healthy and working properly is essential to make sure all cells and tissue in your body get fed by oxygen-rich blood.

Of course, exercise, stopping smoking, and avoiding air pollution are all important ways to ensure lung health. This can help you avoid and reduce your risk of pulmonary diseases like bronchitis, asthma, pneumonia, and lung cancer. However, there are also many foods that act as lung cleansers and strengthen your lungs. Foods like green leafy vegetables, garlic, citrus fruits, berries, and ginger are great foods for detoxing the lungs and keeping them healthy

Turmeric

Turmeric is closely related to ginger and it another great food to cleanse your lungs. There are many reasons to increase your intake of turmeric and keeping your lungs healthy is just one of them. You can also make a delicious anti-inflammatory turmeric and ginger tea for its lung cleansing effect and to help boost your respiratory health.

Turmeric also acts as a lung cleanser because it offsets the harmful effects of breathing air pollutants, cigarette smoke, and other lung irritants. For example, the journal *Advances in Experiential Medicine and Biology* reported that curcumin can help prevent chronic obstructive pulmonary disease (COPD), allergic asthma, and other respiratory diseases.

When consuming turmeric, you should remember to add black pepper to turmeric to boost its bioavailability and make it even more effective.

Foods high in magnesium

Foods containing magnesium can maintain your lung health and help ensure they function properly. It has been reported that a deficiency in magnesium can affect pulmonary function and could result in lung complications.

Research into the role of magnesium in keeping lungs clear and healthy found that magnesium affects pulmonary muscles. Clinical trials found that treating asthmatic conditions with magnesium could have therapeutic potential.

Water

Drinking enough water is necessary to keep your body healthy and your lungs working effectively. There are many side effects of dehydration including fatigue, irritability, joint pain, and abnormal cholesterol levels.

Researchers have found that one of the signs of dehydration is an increase in bronchitis and asthma. Drinking enough water helps to regulate inflammation in your lungs and prevents certain broncho-pulmonary disorders. Having enough water in your body is essential for lung health because it regulates the proper distribution of minerals and salts.



STRENGTHEN YOUR LUNGS

As well as eating healthy foods to cleanse your lungs, you should also strengthen your lung capacity as much as possible. This will help to boost your cardiovascular system and prevent you becoming easily breathless.

Practice deep breathing

One way to improve your lung health and help prevent disorders that block your lungs is to practice deep breathing.

Researchers from the Rush University Medical Center report that during our daily activities our lungs usually operate at only 50% of their capacity. However, deep breathing helps the lungs to cleanse themselves from the effects of pollution, allergens, and cigarette smoke.²²

Some ways that are recommended to strengthen your lung capacity to cleanse themselves are:

Breathing from your diaphragm.

Concentrate on lowering your diaphragm when inhaling.

Breathe in as much as possible and allow your ribs and upper chest to expand.

Then exhale as much as possible and allow your ribs and stomach muscles to contract.

Try to breathe in and breathe out a little longer than you are used to.

Sit up straight to allow your lungs to fully draw in air.



Exercising

Another way to strengthen your lungs and keep them fit and healthy is to exercise regularly. Exercising improves blood circulation, strengthens your heart, and lowers cholesterol levels naturally.

The Lung Association of Canada reports that regular exercise can help people with respiratory problems. If you have asthma, you should make sure that your asthma is under control before starting an exercise program. However, the Lung Association says that exercising regularly strengthens breathing muscles, boosts your immune system, and helps maintain healthy body weight.

Therefore, exercising may also help prevent many health conditions that can lead to lung and respiratory problems.

Vitamin D

If you have chronic lung disease, you may be able to boost lung health by supplementing your diet with vitamin D.

Studies have shown that many people with chronic obstructive pulmonary disease (COPD) usually have a vitamin D deficiency. When the deficiency was addressed with vitamin D supplements, symptoms of COPD, like shortness of breath, coughing, and excess phlegm were all reduced.

Couch Slouch Posture Fixes

<https://www.everythingzooomer.com/health/2020/04/05/couch-slouch-posture-fixes/>

You may be spending more time at home and more time on the couch, but that doesn't mean you have to stop taking care of yourself. Our posture is so important because it not only affects the way we look but the way we feel and function.

The first step when it comes to good posture is to move more. Holding a static position for a long period of time like you would with computer use will lead to poor posture. If you can take phone calls standing or get up to stretch every hour, this will help.

Next, you need to remember to breathe. Many of us aren't breathing properly or enough and, without this necessary decompression, we are forced into a slouched and compressed posture. Take a few minutes every day to take 10 deep mindful breaths.

Here, three easy exercises to help improve your posture,



1. Pectoral stretch Interlock your hands behind your back, keeping your arms straight while pulling your hands down toward to ground. Squeeze your shoulder blades together and hold for five seconds while keeping your body in an upright position. You should feel a comfortable stretch through your chest. Do this several times each day. **What it does** By releasing tight pectoral muscles, the shoulders will visibly drop and move backward, combatting the rounded hunch effect that is more prominent as we age.

2. Thoracic extension Stand or sit in a chair and clasp both hands behind your head. Gently arch backward, squeeze your shoulder blades together and hold for five seconds. You should feel a comfortable stretch through your chest. Do this several times each day.

What it does This reduces hunching in the middle back, opens up the chest and allows you to take in deeper breaths. It also helps to improve upper body mobility.



3. Back bends Stand with your feet planted firmly on the ground and your hands behind your hips for support. Look up to the ceiling and take a deep breath in. As you exhale, slowly and gently bend backwards. Take a few breaths while you're in the back bend, then slowly come back up to standing. As you feel more comfortable with this exercise you can bring your arms overhead while you bend. **What it does** It takes pressure off your spine. Looking up to the ceiling corrects misaligned forward head posture, too, making you stand up straighter.

<https://www.weforum.org/agenda/2020/03/14-ways-to-protect-your-mental-health-in-the-pandemic-according-to-public-health-england>



1. Look after your physical wellbeing: Eat healthy well balanced meals. Stress and eating often don't mix well, and we find ourselves over-indulging, forgetting to eat, and avoiding food. Drink plenty of water, eat some good and nutritious foods, and challenge yourself to learn how to cook something new! Exercise inside where possible and outside once a day (keeping the recommended 2 metres physical distance from others).

3. **Stick to a routine:** Go to sleep and wake up at a reasonable time, write a schedule that is varied and includes time for work as well as self-care. How can you adapt and create a positive new routine? Try to engage in useful activities (such as cleaning, cooking or exercise) or meaningful activities (such as reading or calling a friend). You might find it helpful to write a plan for your day or your week.

5. **Keep your mind active:** Read, write, play games, do crossword puzzles, sudokus, jigsaws or drawing and painting. Find something that works for you.

7. **Dress for the social life** you want, not the social life you have. Get showered and dressed in comfortable clothes, wash your face, brush your teeth. Take the time to do a bath or a facial. Put on some bright colors. It is amazing how our dress can impact our mood.

9. **Find some time to move each day**, again daily for at least thirty minutes. If you don't feel comfortable going outside, there are many YouTube videos that offer free movement classes, and if all else fails, turn on the music and have a dance party!

10. Reach out to others; you guessed it, at least once daily for thirty minutes. Try to do FaceTime, Skype, phone calls, texting—connect with other people to seek and provide support. Don't forget to do this for your children as well. Set up virtual playdates with friends daily via FaceTime, Facebook Messenger Kids, Zoom, etc—your kids miss their friends, too!

11. Develop a self-care toolkit. This can look different for everyone. A lot of successful self-care strategies involve a sensory component (seven senses: touch, taste, sight, hearing, smell, vestibular (movement) and proprioceptive (comforting pressure)). An idea for each: a soft blanket or stuffed animal, a hot chocolate, photos of vacations, comforting music, lavender or eucalyptus oil, a small swing or rocking chair, a weighted blanket. A journal, an inspirational book, or a mandala coloring book is wonderful, bubbles to blow or blowing watercolor on paper through a straw are visually appealing as well as work on controlled breath. Mint gum, Listerine strips, ginger ale, frozen Starburst, ice packs, and cold are also good for anxiety regulation. For children, it is great to help them create a self-regulation comfort box (often a shoe-box or bin they can decorate) that they can use on the ready for first-aid when overwhelmed.

12. Spend extra time playing with children. Children will rarely communicate how they are feeling, but will often make a bid for attention and communication through play. Don't be surprised to see therapeutic themes of illness, doctor visits, and isolation play through. Understand that play is cathartic and helpful for children—it is how they process their world and problem solve, and there's a lot they are seeing and experiencing in the now.

13. Give everyone the benefit of the doubt, and a wide berth. A lot of cooped up time can bring out the worst in everyone. Each person will have moments when they will not be at their best. It is important to move with grace through blow ups, to not show up to every argument you are invited to, and to not hold grudges and continue disagreements. Everyone is doing the best they can to make it through this.

14. Everyone find their own retreat space. Space is at a premium, particularly with city living. It is important that people think through their own separate space for work and for relaxation. For children, help them identify a place where they can go to retreat when stressed. You can make this place cozy by using blankets, pillows, cushions, scarves, beanbags, tents, and "forts". It is good to know that even when we are on top of each other, we have our own special place to go to be alone.

15. Expect behavioral issues in children, and respond gently. We are all struggling with disruption in routine, none more than children, who rely on routines constructed by others to make them feel safe and to know what comes next. Expect increased anxiety, worries and fears, nightmares, difficulty separating or sleeping, testing limits, and meltdowns. Do not introduce major behavioral plans or consequences at this time—hold stable and focus on emotional connection.

16. Focus on safety and attachment. We are going to be living for a bit with the unprecedented demand of meeting all work deadlines, homeschooling children, running a sterile household, and making a whole lot of entertainment in confinement. We can get wrapped up in meeting expectations in all domains, but we must remember that these are scary and unpredictable times for children. Focus on strengthening the connection through time spent following their lead, through physical touch, through play, through therapeutic books, and via verbal reassurances that you will be there for them in this time.

17. Lower expectations and practice radical self-acceptance. This idea is connected with #12. We are doing too many things in this moment, under fear and stress. This does not make a formula for excellence. Instead, give yourself what psychologists call “radical self-acceptance”: accepting everything about yourself, your current situation, and your life without question, blame, or pushback. You cannot fail at this—there is no roadmap, no precedent for this, and we are all truly doing the best we can in an impossible situation.

18. Limit social media and COVID conversation, especially around children. One can find tons of information on COVID-19 to consume, and it changes minute to minute. The information is often sensationalized, negatively skewed, and alarmist. Find a few trusted sources that you can check in with consistently, limit it to a few times a day, and set a time limit for yourself on how much you consume (again 30 minutes tops, 2-3 times daily). Keep news and alarming conversations out of earshot from children—they see and hear everything, and can become very frightened by what they hear.

19. Notice the good in the world, the helpers. There is a lot of scary, negative, and overwhelming information to take in regarding this pandemic. There are also a ton of stories of people sacrificing, donating, and supporting one another in miraculous ways. It is important to counter-balance the heavy information with the hopeful information.

20. Help and support others. Find ways, big and small, to give back to others. Support restaurants, offer to grocery shop, check in with elderly neighbors, write psychological wellness tips for others—helping others gives us a sense of agency when things seem out of control. It could make a big difference to them and can make you feel better, too.

21. Set goals: Setting goals and achieving them gives a sense of control and purpose – think about things you want or need to do that you can still do at home. Find something you can control, and control the heck out of it. In moments of big uncertainty and overwhelm, control your little corner of the world. Organize your bookshelf, purge your closet, put together that furniture, group your toys. It helps to anchor and ground us when the bigger things are chaotic.

22. Find a long-term project to dive into. Now is the time to learn how to play the keyboard, put together a huge jigsaw puzzle, start a 15 hour game of Risk, paint a picture, read the Harry Potter series, binge watch an 8-season show, crochet a blanket, solve a Rubix cube, or develop a new town in Animal Crossing. Find something that will keep you busy, distracted, and engaged to take breaks from what is going on in the outside world.

23. Engage in repetitive movements and left-right movements. Research has shown that repetitive movement (knitting, coloring, painting, clay sculpting, jump roping etc) especially left-right movement (running, drumming, skating, hopping) can be effective at self-soothing and maintaining self-regulation in moments of distress.

24. Find an expressive art and go for it. Our emotional brain is very receptive to the creative arts, and it is a direct portal for release of feeling. Find something that is creative (sculpting, drawing, dancing, music, singing, playing) and give it your all. See how relieved you can feel. It is a very effective way of helping kids to emote and communicate as well!

25. Talk about your worries: Remember that this is a difficult time for everyone and sharing how you are feeling and the things you are doing to cope with family and friends can help them, too.

26. Find lightness and humor in each day. There is a lot to be worried about, and with good reason. Counterbalance this heaviness with something funny each day: cat videos on YouTube, a stand-up show on Netflix, a funny movie—we all need a little comedic relief in our day, every day.

27. Try to manage difficult feelings: Try to focus on the things you can control, including where you get information from and actions to make yourself feel better prepared.

28. Reach out for help—your team is there for you. If you have a therapist or psychiatrist, they are available to you, even at a distance. Keep up your medications and your therapy sessions the best you can. If you are having difficulty coping, seek out help for the first time. There are mental health people on the ready to help you through this crisis. Your children's teachers and related service providers will do anything within their power to help, especially for those parents tasked with the difficult task of being a whole treatment team to their child with special challenges. Seek support groups of fellow home-schoolers, parents, and neighbors to feel connected. There is help and support out there, any time of the day—although we are physically distant, we can always connect virtually.

29. "Chunk" your quarantine, take it moment by moment. We have no road map for this. We don't know what this will look like in 1 day, 1 week, or 1 month from now. Often, when I work with patients who have anxiety around overwhelming issues, I suggest that they engage in a strategy called "chunking"—focusing on whatever bite-sized piece of a challenge that feels manageable. Whether that be 5 minutes, a day, or a week at a time—find what feels doable for you, and set a time stamp for how far ahead in the future you will let yourself worry. Take each chunk one at a time, and move through stress in pieces.

30. Remind yourself daily that this is temporary. It seems in the midst of this quarantine that it will never end. It is terrifying to think of the road stretching ahead of us. Please take time to remind yourself that although this is very scary and difficult, and will go on for an undetermined amount of time, it is a season of life and it will pass. We will return to feeling free, safe, busy, and connected in the days ahead.

31. Find the lesson. This whole crisis can seem sad, senseless, and at times, avoidable. When psychologists work with trauma, a key feature to helping someone work through said trauma is to help them find their agency, the potential positive outcomes they can affect, the meaning and construction that can come out of destruction. What can each of us learn here, in big and small ways, from this crisis? What needs to change in ourselves, our homes, our communities, our nation, and our world?

3 Tips from a Therapist for Calming your Corona Virus Anxiety:

Structure your time, Take a Break from News, and Thought Charts

For more info:

https://greatergood.berkeley.edu/article/item/three_tips_from_a_therapist_for_calming_your_coronavirus_anxiety

50 Ways to Stay Sane During the Corona Virus Pandemic: Check out the list of 50 possible activities to keep you strong, active, neighbourly, and energetic.

<https://thepracticalutopian.ca/2020/03/20/50-ways-to-stay-sane-during-the-coronavirus-pandemic/>

Healthy Eats – 10 Every Day Super Foods:



1. Quinoa

Quinoa (pronounced "KEEN-wah") is grown in Canada, and it's as easy to cook up as rice. This ancient Incan staple has more protein than any other grain, not to mention higher levels of fibre, calcium, vitamin E, iron, magnesium and phosphorus. It has a balance of essential amino acids, and it's gluten-free and easy to digest. (For more information, see FoodTV.ca.)

How to use it: You can use quinoa in place of rice or couscous in side dish recipes, soups, stews and salads, or enjoy it as a breakfast cereal topped with fruit or honey. Buy it in the bulk food section (rather than fancy packages) to save money.

2. Cranberries

Some berries get all the glory — like blueberries, strawberries, acai and goji berries — but they can be expensive or hard to find during certain times of year. Cranberries offer the same antioxidant benefits as other red berries, not to mention vitamins A and C and 2 grams of fibre per 1/2 cup, but we often neglect this potent fruit outside of holiday season because they're too tart to be eaten alone.

How to use them: Use fresh or frozen berries in a rice pilaf or bruschetta, in a fruit crumble or crisp, in stuffing, chutneys or jams and in breads. Watch for recipes that incorporate other super-fruits like cherries, blueberries and pomegranate — the sweet will balance the tart. Dried cranberries can be enjoyed alone or used in trail mix, cookies and baked goods, or toss a handful on your cereal or salad.

3. Pumpkin

This food gets top marks from health experts, yet we often ignore it once the fall harvest is over. However, there are many reasons to eat it all year long because it's packed with beta-carotene, vitamin A and other antioxidants. It helps support the immune system, provide protective benefits for the heart, fight aging and protect our eyes.

How to use it: Pumpkin doesn't need to be fresh to be healthy. While canned pumpkin has less fibre, thanks to the heating process it often has more bio-available beta-carotene. Like winter squashes, pumpkin can be roasted, stuffed, used in baked goods (like muffins, pies and cakes) and soups.

If you're using fresh, don't throw out the seeds! They're high in magnesium and a source of plant proteins and healthy fats. Roast them up for a snack, use them in baking or toss them on a salad.

4. Legumes (beans, lentils, split peas, etc.)

There are few excuses to avoid legumes — they're cheap, easy to find (dried or canned) and an excellent source of those plant-based proteins we should be getting in our diets. In addition, they're a good source of fibre, omega-6 fatty acids, water-soluble vitamins and phytochemicals. They're also low-glycemic index foods — meaning they won't cause a spike in blood sugar — so they're useful to help prevent diabetes. With the exception of soy beans, they're also low in fat. (For more information, see Oprah.com.)

How to use them: Salads, soups, stews and dips are just a few of the countless options — but you can also use them in baking and desserts. Canned legumes are more convenient (though more expensive) than dried versions which need to be soaked prior to cooking. If you're short on time, opt for dried lentils which don't require soaking or long cooking times. Serve them up with some rice to balance out the amino acids. (And yes, you can freeze them too.)

Because legumes are staple foods around the world, they're also a great ingredient for international cuisine enthusiasts.

5. Kale

You can buy it just about anywhere, and it's one of those essential leafy greens we hear so much about. It's got a solid fibre content, calcium, iron, vitamins A, C and K. Kale is also packed with antioxidants, and sulforaphane and a compound called indoles — both of which are known to help prevent cancer. Like cabbage (and unlike spinach), kale holds its shape well when cooked.

How to use it: Use it as a salad green, shred it in stews, stir fries, soups and omelettes, braise it, steam it or sauté it with garlic and soy sauce. You can even bake it to create kale chips — or blanch and freeze for future use.

If kale isn't your taste, try Swiss chard or cabbage — both have topped experts' superfood lists.

6. Allium family vegetables

We're familiar with the health benefits of garlic and onions, but experts extol the virtues of the entire Allium family, including chives, leeks, shallots and scallions. This family contains flavonoids which prompt the body to produce more glutathione — a chemical which helps get rid of toxins and carcinogens.

Members of this family can also help lower cholesterol and blood pressure, reduce the risk of blood clots and certain cancers and help fight neurological diseases. They also help support the immune system.

How to use them: Recipes aren't hard to find because these ingredients are commonly used, but try to find ones where they get a chance to shine. To switch things up, try milder leeks or shallots in a stir fry or vegetable dish instead of onions, or toss them in a salad. Some alliums like garlic should be enjoyed raw for maximum benefit because cooking can harm some of their protective properties.

7. Beets

Nutritionist and author Jonny Bowden calls them "red spinach" for a reason: those potent pigments are thought to help ward off certain cancers like colon cancer. They're also high in folate (an essential B-vitamin) and manganese, and the betaine found in beets can help fight inflammation in the body. (See WHFoods.com for more details.)

How to use them: Cooked is okay, but the best benefits come from the raw, fresh form. Grate it onto a salad or vegetable dish for an attractive splash of colour. You can also marinate them in olive oil, fresh lemon juice and herbs.

8. Prunes

They're not as sexy as other superfoods, and often elicit a few jokes and giggles. While known for helping to promote regularity (thanks to the fibre), they're also packed with phytonutrients called *neochlorogenic* and *chlorogenic acid* — which are powerful antioxidants that help prevent cell damage. They're also a good source of beta-carotene and potassium — which offers a helpful boost for the heart and the bones. Prunes also help the body absorb iron, and despite their sweet taste they won't raise blood sugar levels like other dried fruits. (See [WHFoods.com](https://www.whfoods.com) for more details.)

How to use them: Enjoy them on their own, or chop them up and use them as a topping for cereal or in a trail mix. You can also use them in appetizers, stuffing and with roasted meats. Serving sizes don't have to be huge — a quarter cup is sufficient.

9. Dark chocolate

Yes, experts agree that chocolate can be part of a healthy diet. Various studies have shown that chocolate has antioxidants which help decrease the risk of heart disease and stroke. It's also a great way to give our mood a little boost.

However, most of us reach for the wrong stuff when that sweet craving hits, so we're not reaping the full benefits of those disease-fighting flavonoids. Cocoa is the key — but milk chocolate and some dark chocolate don't have enough, and white chocolate doesn't have any. Look for dark chocolate that's at least 60 per cent cocoa, though some sources recommend 70 per cent and above.

How to use it: Do we really need advice on how to enjoy chocolate? Yes, because dietitians warn to keep the portion sizes small — a small piece each day is enough. Sprinkle some chocolate shavings on a fruit salad, or make your own hot chocolate from scratch. Many appetizer, side dish and main course recipes also use chocolate as a flavouring so they're a good way to get some of this superfood without the fat and sugar of chocolate desserts.

10. Super spices

What you put on your food can be just as important as what you cook. For example, one teaspoon of cinnamon has as many antioxidants as a serving of blueberries — making it a superfood favourite. Hot pepper (think cayenne or ground red pepper) contain capsaicin, another antioxidant which is also thought to boost the metabolism. Allspice, cloves, ginger, oregano and sage are also packed full of antioxidants.

How to use them: Give bland cooking a pass and get creative in the kitchen. Cook vegetables in ginger or your favourite herb blend. Try sprinkling some cinnamon in your coffee, or on your toast or oatmeal. Look for soups that contain turmeric, or add some herbs to your grilled cheese or mashed potatoes.

For Recipe Ideas for each of these Super Foods:

<https://www.everythingzoomer.com/health/2020/04/13/10-everyday-superfoods/>



19 THINGS COVID-19 CLARIFIES:

1. The United States is no longer the world leader.
2. China may have just won World War III without firing a missile and no one even noticed it.
3. Prevention saves more lives than acting at the last moment.
4. Healthcare workers are worth more than a CEO with a severance package.
5. Oil is worthless in a society without consumption.
6. Death does not distinguish race, color, or social status.
7. Social media brings us together (maybe), but it's also a great way to create general panic.
8. We now know how animals in zoos feel.
9. We are beginning to appreciate (or rethink) the great gesture of trust that it means to shake a person's hand.
10. The planet regenerates quickly without humans.
11. We are not ready for a pandemic.
12. We need to invest more in the health care system rather than bankrupt banks.
13. Vatican money stays in the Vatican.
14. Alcohol (on the hands) saves lives.
15. A consumer product can quickly go from "prohibited" to "essential" (eg cannabis).
16. It is better to buy a house with a courtyard than an apartment or a condo (since we can plant a garden and be more self-sufficient, or be less dependent on supermarkets for the food that we consume).
17. Our elders need us.
18. At the end of this pandemic, the world will have changed.
19. Digital is not real life, human contact is necessary.

2019: Stay away from negative people.

2020: Stay away from positive people.

What if...

- What if instead of "behind", this group of kids is advanced because of this?
- What if they have more empathy?
- What if they enjoy family connection?
- What if they can be more creative and entertain themselves?
- What if they love to read?
- What if they love to express themselves in writing?
- What if they enjoy the simple things, like their own backyard and sitting near a window in the quiet?
- What if they notice the birds and the dates that the different flowers emerge?
- What if they notice the calming renewal of a gentle rain shower?
- What if this generation are the ones to learn to cook and do laundry?
- What if they learn to organize their space and keep a well-run home?
- What if they learn the value of eating together as a family?
- What if they learn to find the good to share in the small delights of the everyday?
- What if among these children, a great leader emerges who had the benefit of a slower pace and a simpler life to truly learn what really matters in life?
- What if they are ahead?

Life and Business After the COVID-19 Crisis

Sources: <https://www.everythingzoomer.com/money/2020/04/20/what-will-life-and-business-look-like-after-the-covid-19-crisis/>
and <https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning>
and <https://medium.com/@ngoek/5-good-things-that-will-follow-from-this-pandemic-e985b0a0bcc2>

Months of sheltering in place will fundamentally change our lifestyles and influence the way we do business, long after the coronavirus is history.

The COVID-19 crisis will end at some point. No one can predict exactly when, but, unless the virus magically fades away in the heat of summer, I don't believe we will see the end of this until two things occur.

First, we need to develop an effective treatment for serious cases. That will reduce the death toll and ease the stress on the healthcare system. It appears that a treatment is likely closer than a vaccine.

The second stage is a vaccine that is effective and widely available at a reasonable cost. We need something that can wipe out this virus, in the way other vaccines eliminated polio and smallpox. Only then will people feel comfortable socializing again.

Only when we have a treatment and a vaccine can the process of rebuilding the world's economy begin. That means governments are going to be stretched to their limits in providing the fiscal and economic stimulus needed to keep us going until we turn the corner. When we finally emerge on the other side, we'll be faced with massive debt problems at all levels. But those are issues for another day.

So, what will the world look like when the crisis ends? It will be much different than before. Months of sheltering in place will fundamentally change our lifestyles and will continue to influence the way we live and do business.

Of course no one can predict the future, but when thinking about the positive, long-term consequences that we could see from this pandemic, there is a lot of potential.

1. Cashless Payments Everywhere

In Germany, half of all payments are still made in cash. *Half.* Can you imagine? Who wants to carry around clunky, dirty coins and bills, which you constantly have to re-stock from an ATM in an inconvenient location?

Apparently a lot of people — but even those don't want to pay in cash right now. No matter how advanced your country is in terms of paying cashless, chances are, the share of those payments — and the options required to enable them — will only go up from here. Humans are creatures of habit. Even the most die-hard cash fan might be swayed by the ease of tapping a card if they have to do it for several months.

It'll be good for our hygiene, tracking our spending, and saving time.

2. More Work From Home

In the space of a few weeks, we've discovered that jobs no one thought could be done remotely can be handled very effectively with a laptop computer and video conferencing. Given most of us only need laptops and internet access anyway, I think more autonomy is a good thing. It'll make us happier, and save everyone time and money.

There are many reasons why this trend might continue post-crisis. It would reduce costs for cash-strapped businesses through the reduction or elimination of office space and its attendant costs. Teleconferencing will reduce the need for business travel, another cost saver. Commuting costs would be cut – a walk to the home office beats hours in a car or on public transit.

Of course, not everyone can work from home. Construction workers will still be needed on job sites. Staff will be required in grocery stores and pharmacies. Delivery service drivers have become essential to our new lifestyle. We'll still need police firemen, pilots, and others to report to work. But many white-collar jobs that are now being done from home will remain there when the crisis passes.

The losers in this scenario will be office Real Estate Investment Trusts (REITs) and the energy sector. With fewer cars commuting to work, the demand for gasoline will drop – as we're seeing now.

The winners will be technology companies, who will continue to make the whole work at home process easier. Microsoft is a great example.

3. Expanded Use Of Online Commerce

With millennials and younger generations already being used to the online ordering life, the trend here has always been clear. Coronavirus, however, might accelerate widespread availability of on-demand services and delivery around the globe.

For the older generation, we may have ordered a few things online, but that has only been a small part of our shopping routine. Now, that we're in self-isolation, we may have ordered our groceries. At first, it may have been a frustrating experience, as thousands of others are doing the same thing and the systems are overloaded. But based on news reports, the major grocery chains are hiring staff and gearing up to handle this increase in demand.

Once that happens, many may forego the weekly trip to the supermarket, especially on a miserable winter day. Why take the time to shop for groceries when everything you need can come to your doorstep?

The winners here will be those companies that offer good prices, prompt delivery, and user-friendly websites built along the Amazon model. Delivery companies will also prosper in the expanded e-commerce economy – think FedEx and UPS.

The losers will be the brick and mortar stores and retail malls, which were suffering before any of this happened. REITs that specialize in retail should be avoided.

4. Less Spending On Needless Consumer Goods

Call me crazy, but I think right now, people will remember what's really important.

Who feels like buying fancy clothes now? Who cares about VIP tickets? When you're forced to reduce your expectations and stop living large, you gain space to reflect. A common conclusion is, "Oh, I never needed this to begin with."

Suddenly, it's enough to watch your children play, to read a book or talk to a friend on the phone. If you can't fill your spare time with distractions, the only alternative is to spend it on what's meaningful.

Granted, all this reduced spending might not be prolonged, and it might look bad on paper for the world economy — but I think in the end, let's hope that it turns us into better humans. We might even use more of our resources to the benefit of others once we resume to "normal".

5. Improved Global Crisis Management

While this will likely go down in history as the number one crisis in terms of how fast information was generated and spread with relative efficiency, many analyses and reports show there's also lots of room for improvement in preparation and prevention.

Italy is one of the most advanced nations on the planet, and its healthcare system collapsed in the span of two weeks. Restaurant chain Vapiano filed for insolvency just two days after being forced to close most locations. Two hundred scientists had to write an open letter to the UK government to finally get them to take action.

If this were to happen all over again, I assure you everyone involved would do one or two things differently. At the very least, we should see larger stocks and emergency reserves of basic hygienic goods, medication, and medical equipment. But I think we'll see much more. Just like 9/11 changed airport security forever, after coronavirus, healthcare will never be the same.

6. An Accelerated Move To Robotics

Robots cannot catch COVID-19, or anything else. While the rest of us stay home, robots can keep factory output going with a minimum of human intervention. This trend is already been well-established. In mid-2019, a report from Oxford Economics projected that 20 million manufacturing jobs around the world will be taken over by robots by 2030. That could accelerate as the world emerges from the crisis, although much will depend on how much capital spending businesses can afford. The rise of robotics is a two-edged sword. On the one hand, it will improve productivity and reduce the economy's vulnerability to future pandemics. On the other, it will leave millions of people without work. Managing that crisis will be a real challenge to business and governments.

7. More eLearning

Globally, in 186 countries, over 1.2 billion children are out of the classroom because of the corona virus. Hence, education has changed dramatically, with the rise of e-learning, whereby teaching is undertaken remotely and on digital platforms: language apps, virtual tutoring, video conference tools, and online learning software. Research suggests that online learning has been shown to increase retention of information, and take less time, meaning the changes coronavirus have caused might be here to stay. Some research shows that on average, students retain 25-60% more material when learning online compared to only 8-10% in a classroom. This is mostly due to the students being able to learn faster online; e-learning requires 40-60% less time to learn than in a traditional classroom setting because students can learn at their own pace, going back and re-reading, skipping, or accelerating through concepts as they choose.

While some believe that the unplanned and rapid move to online learning – with no training, insufficient bandwidth, and little preparation – will result in a poor user experience that is uncondusive to sustained growth, others believe that a new hybrid model of education will emerge, with significant benefits. Nevertheless, the effectiveness of online learning varies amongst age groups. The general consensus on children, especially younger ones, is that a structured environment is required, because younger kids are more easily distracted.

Canadian Government Assistance for Seniors

Your government working for Seniors:

Due to the current financial situation caused by the Virus and slowdown in the economy, the Government has decided to implement a scheme to put workers of **50 years of age and older** on early, mandatory retirement, thus creating jobs and reducing unemployment.

This scheme will be known as **RAPE** (Retire Aged People Early).

Persons selected to be **RAPED** can apply to the Government to be considered for the **SHAFT** program (Special Help After Forced Termination).

Persons who have been **RAPED and SHAFTEd** will be reviewed under the **SCREW** program (System Covering Retired-Early Workers).

A person may be **RAPED once, SHAFTEd twice and SCREWED as many times** as the Government deems appropriate.

Persons who have been **RAPED** could get **AIDS** (Additional Income for Dependents & Spouse) or **HERPES** (Half Earnings for Retired Personnel Early Severance).

Obviously persons who have **AIDS or HERPES will not be SHAFTEd or SCREWED** any further by the Government.

Persons who are not **RAPED** and are staying on will receive as much **SHIT** (Special High Intensity Training) as possible. The Government has always prided themselves on the amount of SHIT they give our citizens.

Should you feel that you do not receive enough **SHIT**, please bring this to the attention of your MP, who has been trained to give you all the SHIT you can handle.

Sincerely,

The Committee for Economic Value of Individual Lives (E.V.I.L.)



PS - Due to the Virus, recent budget cuts and the rising cost of electricity, gas and oil, as well as current market conditions, The Light at the End of the Tunnel has been turned off.



Quarantine has turned us into dogs.

- We roam the house all day looking for food.
- We are told "no" if we get too close to strangers.
- And we get really excited about car rides.

Now, I understand why the dog chews the furniture!

Are We Ready To Laugh About This Yet?



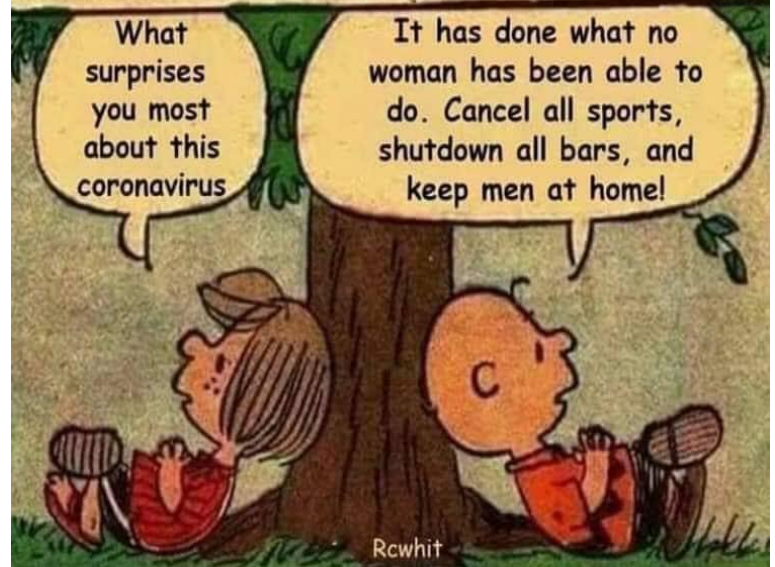
- * Half of us are going to come out of this quarantine as amazing cooks. The other half will come out with a drinking problem.
- * I used to spin that toilet paper like I was on Wheel of Fortune. Now I turn it like I'm cracking a safe.
- * I need to practice social-distancing from the refrigerator.
- * Every few days try your jeans on just to make sure they fit. Pajamas will have you believe all is well in the kingdom.
- * Home schooling is going well. 2 students suspended for fighting and 1 teacher fired for drinking on the job.
- * I don't think anyone expected that when we changed the clocks we'd go from Standard Time to the Twilight Zone
- * This morning I saw a neighbor talking to her cat. It was obvious she thought her cat understood her. I came into my house, told my dog.....we laughed a lot.
- * So, after this quarantine.....will the producers of My 600 Pound Life just find me or do I find them?
- * Quarantine Day 5: Went to this restaurant called THE KITCHEN. You have to gather all the ingredients and make your own meal. I have no clue how this place is still in business.
- * My body has absorbed so much soap and disinfectant lately that when I pee it cleans the toilet.
- * Day 5 of Home schooling: One of these little monsters called in a bomb threat.
- * I'm so excited: it's time to take out the garbage. What should I wear?
- * I hope the weather is good tomorrow for my trip to Puerto Backyarda. I'm getting tired of Los Livingroom.
- * Classified Ad: Single man with toilet paper seeks woman with hand sanitizer for good clean fun.
- * Day 6 of Home schooling: My child just said "I hope I don't have the same teacher next year".... I'm offended
- * Better 6 feet apart than 6 feet under!



DAILY QUARANTINE QUESTIONS:

1. What am I GRATEFUL for today?
2. Who am I CHECKING IN ON or CONNECTING WITH today?
3. What expectations of "normal" am I LETTING GO OF today?
4. How am I GETTING OUTSIDE today?
5. How am I MOVING MY BODY today?
6. What BEAUTY am I either creating, cultivating, or inviting in today?

PEANUTS



50 Ways to Beat the Virus

- Stay away from the pack, Jack
- Don't visit your Gran, Stan
- Wipe down every toy, Roy
- To keep virus-free
- Don't hop on the bus, Gus
- Don't listen to Don, Ron
- Don't hoard the TP, Lee
- Just stay virus free
- Sneeze into your sleeve, Steve
- Stop touching your face, Grace
- Keep back to six feet, Pete
- Heed the CDC
- Just use the Purell, Mel
- Keep wipes in your purse, Nurse
- Take care of your stock, Doc
- You need PPE
- This isn't Spring Break, Jake
- Stay home if you're sick, Dick
- As COVID leaps, peeps
- Just follow the rules, fools
- And stay virus-free

NOT EVERYTHING IS CANCELLED

sunshine is not cancelled
 spring is not cancelled
 love is not cancelled
 relationships are not cancelled
 reading is not cancelled
 naps are not cancelled
 devotion is not cancelled
 music is not cancelled
 dancing is not cancelled
 imagination is not cancelled
 kindness is not cancelled
 conversations are not cancelled
hope is not cancelled



#keeplookingup
 SimpleStencils.com

ELDER COLLEGE:

An Introduction to Infectious Diseases – a full 24 lecture course for FREE!!!

Infectious diseases touch the lives of everyone on the planet, and now with the emergence of COVID-19, this is more true than ever. On a worldwide scale, infectious diseases account for 26% of all deaths, second only to cardiovascular diseases. And unlike chronic diseases, infectious diseases are unique in their potential for explosive global impacts.

Throughout these 24 free video lectures, Dr. Barry Fox delivers clear and up-to-date information on dozens of infectious diseases—from where they originate, to how they spread, to how we can overcome their devastating effects.


Whether you have a love for biology, a curiosity about the world's many infectious diseases, or a certain amount of trepidation about what the future holds, you will enjoy Dr. Fox's impeccable bedside manner, insider knowledge, and personal stories. And most importantly, you will be empowered to make the best choices for yourself, your loved ones, and future generations.

Check it out!!!

https://www.thegreatcoursesdaily.com/an-introduction-to-infectious-diseases-full-video-course/?id=41413648&ai=184860&sa=LIT12&cm_mmc=email_-Email184860_20200323_-body_-mainimg&cmp=email

HOW TO CHOOSE YOUR NEXT VACATION: Thanks to PQRTA member Janice Whaley.

Follow the Rules in Column 1 to pick your vacation from Column 2

Rules		Destination
1. Choose a number between 1 and 9		1. Italy
2. Multiply it by 3		2. Spain
3. Add 3		3. India
4. Multiply by 3 again		4. Caribbean
5. Add the resulting two numbers together		5. Portugal
6. The number you obtain is that corresponding to the destination of your next vacation		6. New Zealand
		7. Bahamas
		8. Singapore
		9. Stay at home
		10. Thailand
		11. Brazil
		12. Scotland
		13. Australia
		14. South Africa
		15. Canada
		16. Greece
		17. Mexico
		18. Mauritius

WELCOME to NEW PQRTA MEMBERS!

- Joan Young
- Tim Daniel



ORES - OCEANSIDE RETIRED EDUCATORS' SCHOLARSHIP

Thanks so much to all of you for your continued support of our local students. This year, we are giving 2 scholarships through Oceanside Retired Educators.

- \$1,000 to a student from either Kwalikum or Ballenas Secondary who is training as an educator
- \$500 to a motivated student (mostly likely in trades training) from PASS (Parksville Alternate Secondary School).

The ORES committee has received some student applications. If you are interested in helping to choose winners, please contact Elaine Young:

Email: reyis3@shaw.ca or Phone: 250.927.0375



BCRTA NEWS:

A special message of support to active school staff from Gerry Tiede, President of the BC Retired Teachers' Association:



BCRTA
BC Retired Teachers' Association

Dear Teachers, Administrators and Support Staff across British Columbia,

On April 22, the Executive of the BC Retired Teachers' Association took time to reflect on the unprecedented circumstances faced by our friends and active colleagues in the school system.

I am writing on behalf of our 17,000 members to express our concern for your well-being and to express our confidence in all of you. We know that however challenging it is to work with students in the new ways that the COVID-19 pandemic demands, that you bring the characteristics always shown by teachers, support staff and school and district administrators. When faced with challenges great or small, you have always stepped forward to meet the needs of students through creative problem-solving and good-will. Your students know it now more than ever, and so do we.

We are so very proud to be part of the same history and fraternity as you. Although we are required to be physically separated right now, we want you to know that we are cheering you on from the sidelines!

We wish you good health. Your work is appreciated by your retired colleagues.

Thank you and stay well,

Gerry Tiede
President
BC Retired Teachers' Association
www.bcrta.ca

**Thanks Gerry!
Well said!**



Have you moved or changed your contact information?
Remember to let us know!
Communication Chair: **Stephanie Koropatnick**
pqrtacommunications@gmail.com or 250.752.8050

Do you know of a PQRTA member who needs some sunshine in their life, due to illness or a loss in their family? Please, let us know!

Sunshine Chair: **Colleen Craig**
cocraig@shaw.ca or **250.752.3762**



May Events - Parksville and Qualicum Beach Area

<https://www.visitparksvillequalicumbeach.com/events-2019-5/>

What's On Digest – Events in Parksville Qualicum Beach & Area

<http://parksvillequalicum.whatsondigest.com/next-month>

Vancouver Island Free Daily News:

<http://live.vancouverislandfreedaily.com/>

Oasis Magazine: Parksville Qualicum Beach Life

<http://www.oasislife.ca/magazines/>



UPCOMING EVENTS and REMINDERS:

For Programs, Contact Chair Suzanne Rush: pqrtaprograms@gmail.com or 250.468.5445

PQRTA EXECUTIVE and CONTACTS for 2019/2020:

President	Cathy Van Herwaarden	pqrtapresident@gmail.com
Vice-President	Stephanie Koropatnick	pqrtavicepresident@gmail.com
Past-President	Kay Howard	
Treasurer	Ellen Coates	
Secretary	Barb Brett	
Programs	Suzanne Rush	pqrtaprograms@gmail.com
Membership	Diane Williams	
Communications	Stephanie Koropatnick	pqrtacommunications@gmail.com
Sunshine	Colleen Craig	cocraig@shaw.ca
Heritage	Sharon Cox-Gustavson	
Historian	VACANT	
Phoning Contacts	Jan Graham and Stephanie Koropatnick	
Well Being Contact	Barb Brett	

BCRTA Website - <https://bcrt.ca/>

