

COVID-19 Pandemic: Common Myths and Misinformation: the facts
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Dr. Bacon has asked that I talk about some of the questions people have had, and discuss some of the myths and misinformation regarding COVID-19

The idea that Masks are ineffective: FALSE

During the early stages of the COVID-19 outbreak in the USA, the CDC and WHO were not recommending that people wear masks. This was due to a shortage of masks in the country raising concerns that if citizens stockpiled masks like they were stockpiling toilet paper, there would not be enough masks for medical professionals. In addition, the concept that wearing a mask would not keep a person from getting COVID-19 but would only help prevent a person with it from spreading it to others, delayed the recommendation to wear masks in public.

However, as cloth masks became ubiquitous and people realized how commonly people who do not know they are infected spread the virus, both of the above misgivings disappeared. Although it is true that cloth masks do not do quite as good of a job keeping the virus from passing through compared with N95 masks, they do help keep asymptomatic infected people from accidentally spreading the virus to others in a public setting. Also, there is a connection between the amount of virus there is in the air and the length of time a person is breathing that air, and the chance of getting infected. So anything that lowers the amount of virus a person breathes in helps make it less contagious, and any efforts to shorten the amount of time a person breathes contaminated air also make a difference.

In short, there is good evidence that wearing a mask in public helps to control the spread of COVID-19, especially if the majority of people are doing it. For the last month the CDC has recommended that we all wear masks in public indoor settings, and the WHO made a similar recommendation on April 6. See the references below for the evidence.

The idea that the use of gloves is ineffective: TRUE except in certain circumstances

You may find that you are asked to wear gloves in some stores, or in places of business. If that is the case and they are provided, there is no harm in wearing gloves. However, let's say you are shopping at COSTCO and are given gloves. You place items in your shopping cart, open freezer doors, push the cart. If EVERYONE is wearing gloves AND they are not touching their mouths or nose with the gloves on, you will be less likely to pick up virus from the surfaces and move them to your items. But people touch their faces even with gloves on. So when you are done shopping and unloading the cart and you remove the gloves, throw them away right away. When you get home, assume that some of the items are contaminated and unpack carefully, washing your hands and the counter you unpacked on thoroughly afterwards.

This piece from NPR explains it well:

The Centers for Disease Control and Prevention has recommended wearing face coverings in certain settings. Do gloves offer any meaningful protection from the coronavirus?

In recent days it's become more common to see some people wearing latex gloves as they perform everyday tasks. But experts say that gloves don't make sense for most people to wear.

Using your ungloved hands – and then washing them often – is the best bet for the typical tasks of everyday life.

"Skin is really great because it's like a hydrophobic covering, which means it's kind of waxy and sort of repels moisture," explains [Dr. Emily Landon](#), hospital epidemiologist and infectious diseases specialist at University of Chicago Medicine. "That means when you touch things, they sort of stay on your hands and then you can wash your hands and get rid of them."

Wearing gloves might cause you to practice worse hand hygiene because you keep wearing the now-dirty gloves instead of washing your hands, Landon says. Gloves are only useful when you use them the right way and in a meaningful way.

In hospitals, for example, gloves are used for certain purposes and disposed immediately afterward. "We put them on what we're going to do a task where we might touch something that's going to be wet or icky or contaminated," Landon says. "Then we take them off right away and leave them in the area with contamination and then clean our hands. Because it turns out more than 10-to-15% of the time, people who take off their gloves actually contaminate their hands with whatever was on the gloves."

You may be likely to take the gloves off and on a lot for another reason: to touch your smartphone screen. "Most phones aren't compatible with gloved fingers," says Dr. [Amesh Adalja](#) at Johns Hopkins University Center for Health Security. So using your phone may create more opportunities for contamination.

But perhaps wearing gloves would keep you from touching your face? Nope, says Landon. "We see people touch their face all the time with gloves on in the hospital."

Adalja concurs. People wearing gloves still want to itch their faces, still want to adjust their glasses. "I know for one that when I'm wearing gloves, I do have a tendency to try to touch my face," he says.

So unless you're a health-care worker or, say, a cook with a cut on your hands, the main piece of advice from Adalja: "I don't recommend that the general public wear gloves." Instead, he says, focus on practicing good hand hygiene.

<https://www.npr.org/sections/goatsandsoda/2020/04/10/832003425/coronavirus-faqs-do-gloves-heip-is-it-allergies-or-covid-19>

In short, gloves are not very helpful unless the wearer is a caregiver of a sick person, involved in food preparation, or working to clean and disinfect their home or workplace.

The idea that Social Distancing is Ineffective: FALSE

In fact, social distancing is a term that covers numerous approaches to keeping people apart, and not all are equally effective. These approaches have ranged from the recommendation to keep a 6 foot distance between people, to shutting down schools and businesses, to halting large indoor events, to entire lockdowns of cities.

A well done but not yet peer reviewed study out of Australia compared 4 different types of social distancing – School closures, staying home from work, case isolation and reduction of community contact, and found that the latter two were the most successful on their own, but that combining all four could reduce spread of the virus much more effectively than any single strategy alone.

This makes sense, given that we know that COVID-19 is more contagious than the flu – the Ro for the flu is 1.3 whereas the Ro for COVID-19 is about 3. This means that each case of the flu causes 1.3 additional cases, compared with COVID-19, in which each case causes about 3 additional cases. And what is worse, about 50% of people who are infected do not know they have it, either because the symptoms are mild or the person has no symptoms at all.

But we also know that the risk of being infected with COVID-19 is much less in outdoor settings than indoors. We know that when in public indoor settings, the risk is less with good spacing, good ventilation, masks and keeping the visit brief. We know that workplaces can help protect workers who cannot work from home by improving work practices with the goal of minimizing close contact as much as possible.

The proper use of concepts of social distancing can decrease the Ro of COVID-19 from 3 down to 1 or less. It is the main strategy being used by many countries that have started reopening ahead of us.

The idea that only the Sick should be quarantined: FALSE

People who are travelling from a place with more infection to one of less infection should quarantine for 14 days. This goes for people who have been on cruise ships; people coming home from New York, New Orleans, Italy, Spain, etc; and people who have been exposed at a party, event or gathering, or from contact with a sick person. This is because many infected people have no symptoms or mild symptoms, and some of the biggest super-spreader events have started with people who got sick a few days later but were not having symptoms at the time of the event.

Evidently Cochrane

Sharing health evidence you can trust



Chapman S. "Quarantine for controlling COVID-19 (coronavirus). New Cochrane evidence". Evidently Cochrane blog, 09 April 2020.
<https://www.evidentlycochrane.net/quarantine-covid-19>

"Quarantine for controlling COVID-19 (coronavirus). New Cochrane evidence"

Take-home points

- A new Cochrane Rapid Review has found that COVID-19 mathematical modelling studies consistently report a benefit of quarantine in reducing the number of people who get infected with COVID-19 and who die from it.
- Decision-makers need to constantly monitor the outbreak situation locally to maintain the best possible balance of measures in place, with an acceptable trade-off between benefits and harms.
- This Rapid Review was done in a short space of time as part of Cochrane's organizational effort to meet the need for up-to-date summaries of evidence to support decision-making in combating the effects and impact of COVID-19. More Rapid Reviews, answering other important questions about COVID-19, are underway.

The idea that hospitals are sitting Empty: PARTLY TRUE

Hospitals in hard-hit areas have been overrun, and have stayed that way for weeks to months. But other hospitals proactively stopped doing elective procedures for two reasons: to open up beds for the surge of patients that was expected, and to minimize the infection risk to individuals who could wait for their procedure until a later date.

If we had had sufficient testing available, we would have been able to test everyone and keep COVID-19 patients separate from non-infected patients, but we did not (and still do not!) Under that kind of scenario, we may not have had to cut back on services, at least not at every hospital. In our area, we have already started doing elective procedures again as part of Phase II reopening.

The idea that we are weakening our Immune Systems by Staying Home: PARTLY FALSE

"There is no scientific evidence to suggest staying at home weakens your immune system because you're not getting enough exposures," Dr. Patel said. "We build up our immunity over many years, over decades, and this won't take a dramatic hit for spending a few months at home."

Dr. Patel adds that we still expose ourselves to pathogens by going outside and to the grocery store.

Although, Dr. Patel points out that byproducts of isolation can impact your immune system. Stress, depression, bad sleep, bad health habits can all negatively impact your immune system. The advice is simple: sleep well, manage stress, have a well-balanced diet, exercise and pay attention to your mental health.

Going outside and getting physical exercise, and getting enough Vitamin D can help mitigate whatever negative effects we might experience by staying home. Staying connected with friends and family can help reduce the loneliness and depression that can occur with prolonged isolation.

The idea that COVID-19 is no worse than the flu: FALSE

It is much more serious than the flu. Any doctor who has cared for patients through year after year of flu seasons can tell you that. If you look at the mortality rate of the flu (0.1%) vs. that of COVID-19 (5-6% if you look at the worldwide numbers, but scientists believe that if we had a better idea of the total number of infected people it would be closer to 1%), you can see that COVID-19 kills AT LEAST 10 times as many people than does the flu, perhaps as high as 50 times as many.

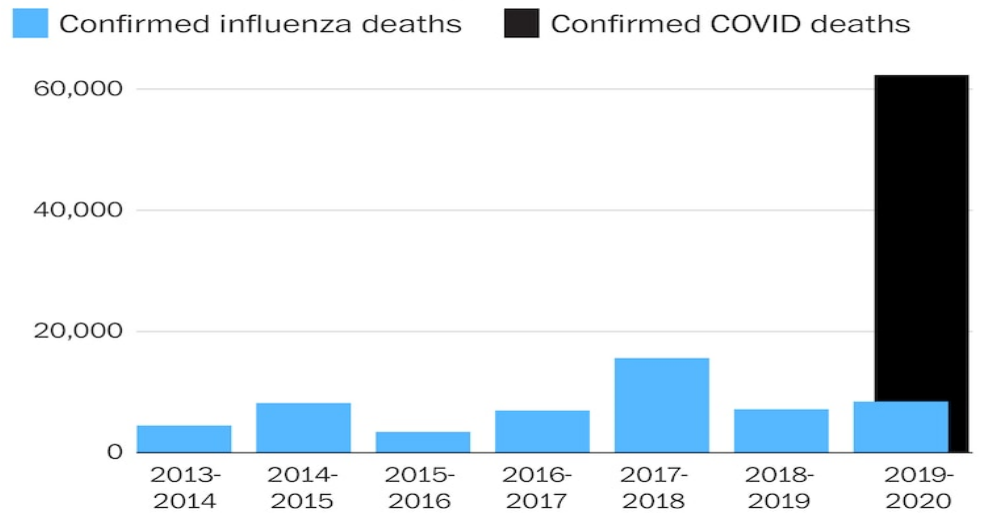
If we look at the Washington State numbers, which are confirmed flu deaths, not estimated, the differences are stark. During the entire 2019-2020 flu season, which has just ended, there were 103 deaths from the flu, 6 of them in children and 97 in adults. So far there have been 1078 deaths from COVID-19 since January, only 4 months into our experience with the disease. COVID-19 has ALREADY killed over 10 times as many Washingtonians than the flu did this year. The numbers in many states are far worse.

Some politicians have repeatedly voiced statistics from the CDC, indicating that in our country the flu kills up to 69,000 people every year, so why are we so worried about COVID-19? But it turns out that those CDC numbers represent “Flu Related Mortality” and include deaths that are not directly caused by the flu, like deaths from bacterial pneumonia, heart failure and emphysema in people who had a flu test or had flu mentioned on their death certificate. Furthermore, the numbers are not even a direct count of flu-related deaths, but are estimated using a mathematical formula that assumes that flu-related deaths are severely undercounted.

Therefore, to get a more accurate comparison, one must start with the number of [directly confirmed flu deaths](#), which the CDC tracks on an annual basis. In the past seven flu seasons, going back to 2013, that tally fluctuated between 3,448 and 15,620 deaths. (See chart below)

Note that these numbers are very different from the CDC’s final official flu death estimates. For 2018-2019, for instance, the 7,172 confirmed flu deaths translated to [a final estimate of between 26,339 and 52,664 deaths](#). Again, that’s because the CDC plugs the confirmed deaths into a model that attempts to adjust for [what many epidemiologists believe is a severe undercount](#).

Flu vs. COVID mortality



Source: CDC FluView, Washington Post COVID tracking THE WASHINGTON POST

<https://www.washingtonpost.com/business/2020/05/02/theres-more-accurate-way-compare-coronavirus-deaths-flu/>

Also, we are only 4 months into the USA's experience with this Pandemic. As of this writing, the USA has now hit nearly 100,000 deaths and we are nowhere near done with the first year.

Bottom Line:

Be careful what you believe! There is a great deal of misinformation on the Internet, and some media outlets are more reliable than others when it comes to fact checking.

The best approach is to read original sources and make your own judgement. But most people do not have the time or inclination to do that.

Therefore, if we are going to truly understand what is going on, it behooves us to find reliable sources of information. It is always a good idea to have more than one source of news, and to listen to the opinions of experts who understand what they are talking about.

I have included a few charts about trust levels of various news sources, information about which news sources are most reliable, and articles about online deception.

References:

Evidence for wearing masks:

<https://theconversation.com/masks-help-stop-the-spread-of-coronavirus-the-science-is-simple-and-im-one-of-100-experts-urging-governors-to-require-public-mask-wearing-138507>

<https://www.preprints.org/manuscript/202004.0203/v1/download>

<https://royalsociety.org/news/2020/05/delve-group-publishes-evidence-paper-on-use-of-face-masks/>

CDC recommendation regarding use of masks for the general public:

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover.html#:~:text=In%20light%20of%20this%20new,community%2Dbased%20transmission.>

General information on masks and how to use them:

<https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-mask/art-20485449>

CDC recommendation regarding use of gloves:

<https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/gloves.html>

Evidence for social distancing:

https://wwwnc.cdc.gov/eid/article/26/8/20-1093_article

<https://www.wired.com/story/social-distancing-has-become-the-norm-what-have-we-learned/>

Pre-print (not yet peer reviewed) article on the effectiveness of 4 types of social distancing on virus spread:

<https://www.medrxiv.org/content/10.1101/2020.03.20.20040055v1.full.pdf>

Evidence for Quarantine of possibly infected people:

<https://www.evidentlycochrane.net/quarantine-covid-19/>

Very helpful Atlantic article about COVID-proofing indoor spaces:

<https://www.theatlantic.com/ideas/archive/2020/05/how-will-we-ever-be-safe-inside/611953/>

Like the Flu?

<https://blogs.scientificamerican.com/observations/comparing-covid-19-deaths-to-flu-deaths-is-like-comparing-apples-to-oranges/>

Empty Hospitals?

<https://centerforinquiry.org/blog/the-covid-19-empty-hospital-conspiracies/>

<https://www.politifact.com/factchecks/2020/apr/03/facebook-posts/hospital-beds-being-kept-empty-prepare-covid-influ/>

Are we weakening our immune systems by staying at home?

<https://www.bbc.com/future/article/20200521-can-staying-inside-weaken-the-immune-system>

<https://www.reuters.com/article/uk-factcheck-staying-home-immune-system/partly-false-claim-staying-at-home-and-wearing-a-face-mask-weakens-the-immune-system-idUSKBN2202LA>

Excellent article about the concept of minimizing rather than eliminating risk:

<https://www.theatlantic.com/ideas/archive/2020/05/quarantine-fatigue-real-and-shaming-people-wont-help/611482/>

Atlantic article about what activities are more and less risky:

<https://www.theatlantic.com/family/archive/2020/05/restaurants-stores-reopen-dos-and-donts/611314/>

NPR article on risk level of various summer activities:

<https://www.npr.org/sections/health-shots/2020/05/23/861325631/from-camping-to-dining-out-heres-how-experts-rate-the-risks-of-14-summer-activit?sc=18&f=1001>

How to have a safe Memorial Day (or summer celebration) with COVID-19:

<https://www.nytimes.com/2020/05/22/well/live/coronavirus-pandemic-memorial-day-picnics-bbqs.html?referringSource=articleShare>

What changes from COVID-19 are likely to become permanent:

<https://www.politico.com/news/magazine/2020/03/19/coronavirus-effect-economy-life-society-analysis-covid-135579>

How to Fight Lies, Tricks and Chaos Online:

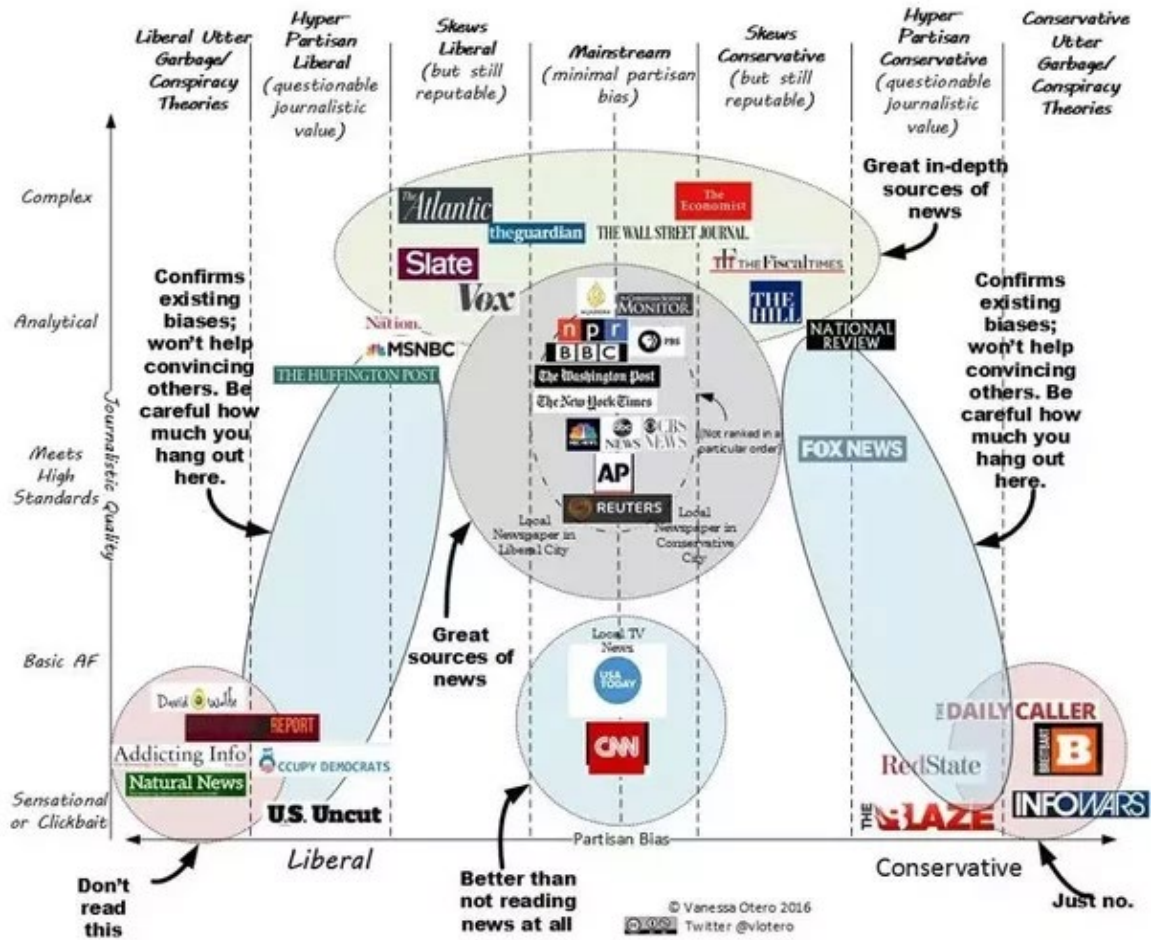
<https://www.theverge.com/2019/12/3/20980741/fake-news-facebook-twitter-misinformation-lies-fact-check-how-to-internet-guide>

Most reliable news sources:

<https://thepopularlist.com/reliable-news-sources/>

Internet deception:

<https://www.wired.com/story/internet-deception-stay-what-do-now/>



Trust Levels of News Sources by Ideological Group

