I got this message from friends on WhatsApp. I have seen it on a few blogs as well. But I think it is dangerous misinformation, and here I explain why.

**Source**?! No link or other proper identifier is given. Because there is a name, and "physician", and "Johns Hopkins", it *sounds* specific – but it is not.

(I tried to google the name but I only get references to this message.)

Trustworthy?! Much of what is in here is correct (as far as I can tell – remember I'm not a virus expert). You really should wash your hands and disinfect contaminated surfaces with bleach or alcohol (source: WHO) – which is why the message is dangerous. You are likely to believe the misinformation, too.

And here we get to the really bad part. Yes (as far as I've heard) UV light can kill viruses and can be used to disinfect. But the message says nothing about how long you need to shine the UV light, and at what intensity. Also, again no source that you could double-check.

Please be very suspicious of any instructions on how to reuse masks. Masks are very scarce right now so this is the perfect 'hook' to get your attention.

## **EXAMPLE - MISINFORMATION**

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The following is forwarded from Irene Ken physician, whose daughter is an Asst. Prof in infectious diseases at Johns Hopkins University, quite informative.

In our community chat, here, they sent this excellent summary to avoid contagion . I share it with you because it is very clear:

scary, to get your attention

- \* The virus is not a living organism, but a protein molecule (DNA) covered by a protective layer of lipid (fat), which, when absorbed by the cells of the ocular, nasal or buccal mucosa, changes their genetic code. (mutation) and convert them into aggressor and multiplier cells.
- \* Since the virus is not a living organism but a protein molecule, it is not killed, but decays on its own. The disintegration time depends on the temperature, humidity and type of material where it lies.
- \* The virus is very fragile; the only thing that protects it is a thin outer layer of fat. That is why any soap or detergent is the best remedy, because the foam CUTS the FAT (that is why you have to rub so much: for 20 seconds or more, to make a lot of foam). By dissolving the fat layer, the protein molecule disperses and breaks down on its own.
- \* HEAT melts fat; this is why it is so good to use water above 25 degrees Celsius for washing hands, clothes and everything. In addition, hot water makes more foam and that makes it even more useful.
- \* Alcohol or any mixture with alcohol over 65% DISSOLVES ANY FAT, especially the external lipid layer of the virus.
- \* Any mix with 1 part bleach and 5 parts water directly dissolves the protein, breaks it down from the inside.
- \* Oxygenated water helps long after soap, alcohol and chlorine, because peroxide dissolves the virus protein, but you have to use it pure and it hurts your skin.
- \* NO BACTERICIDE SERVES. The virus is not a living organism like bacteria; they cannot kill what is not alive with anthobiotics, but quickly disintegrate its structure with everything said.
- \* NEVER shake used or unused clothing, sheets or cloth. While it is glued to a porous surface, it is very inert and disintegrates only between 3 hours (fabric and porous), 4 hours (copper, because it is naturally antiseptic; and wood, be

cause it removes all the moisture and does not let it peel off and disintegrates). ), 24 hours (cardboard), 42 hours (metal) and 72 hours (plastic). But if you shake it or use a feather duster, the virus molecules float in the air for up to 3 hours, and can lodge in your nose.

- \* The virus molecules remain very stable in external cold, or artificial as air conditioners in houses and cars. They also need moisture to stay stable, and especially darkness. Therefore, dehumidified, dry, warm and bright environments will degrade it faster.
- \* UV LIGHT on any object that may contain it breaks down the virus protein. For example, to disinfect and reuse a mask is perfect. Be careful, it also breaks down collagen (which is protein) in the skin, eventually causing wrinkles and skin cancer.
- \* The virus CANNOT go through healthy skin.
- \* Vinegar is NOT useful because it does not break down the protective layer of fat
- \* NO SPIRITS, NOR VODKA, serve. The strongest vodka is 40% alcohol, and you need 65%.
- \* LISTERINE FIATR \$ 151 It is 65% alcohol.
- \* The more confined the space, the more concentration of the virus there can be. The more open or naturally ventilated, the less.
- \* This is super said, but you have to wash your hands before and after touching mucosa, food, locks, knobs, switches, remote control, cell phone, watches, computers, desks, TV, etc. And when using the bathroom.
- \* You have to HUMIDIFY HANDS DRY from so much washing them, because the molecules can hide in the micro cracks. The thicker the moisturizer, the better. \* Also keep your NAILS SHORT so that the virus does not hide there.

From Michele Assaf

Ok this bit sounds good to me! ©

Believable?! A real doctor, and a real professor of infections diseases, would share a link to the website of the WHO, government, university, or big news organization (like the CBC). They would not write a social media message with no sources and bad grammar and hope it gets shared widely.

There are a few **early clues** something is off:

- DNA is not a protein
- Coronaviruses\* are RNA based not DNA
- "Mutation" is something totally different
- I'm suspicious about a few more details but whatever, at this point enough red flags have been raised
- \*oh, and "coronavirus" is never mentioned, even though that's probably why the message gets shared. It might have been made for a different virus scare. The fact that there is no date on the message is also a red flag.

Listerine is **definitely not** 65% alcohol!!! Look it up

Annotations by:
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(Made for Econ 305 at SFU.)
I am an economist, not a virus
expert nor a media expert.
But I know fake news when I
see it and you should too:
https://www.lib.sfu.ca/help/r
esearch-assistance/fake-news