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Grocery shopping and food safety for the era of COVID-19

1) Virology 101 – Viruses are neither dead nor alive. We consider them alive when they are active and reproducing and non-living at other times. They are made of DNA or RNA (SARS-CoV-2 is an RNA virus) surrounded by a protein sheath. They NEED a living cell to reproduce.

That means that, without appropriate living cells to hijack, they cannot replicate when sitting on a counter. Or cardboard. Or steel. Or plastic. Or really any other surface that isn't alive, for that matter. We know for sure that this virus is a human coronavirus, and we have no evidence for other hosts, so unless the virus is in a human, or in human cells we can be pretty confident it isn't reproducing.

2) You may have heard that the virus can survive in aerosols for 3 hours and on some surfaces, for up to 10-17 days. If it is aerosolized, like it would be in a sneeze, the droplets can be inhaled and you can get sick. However, there is currently no evidence that any viral particles found on surfaces have caused illness through skin contact alone. This means you can't get sick just from touching an object, and that you need to transfer the viral particles into an entry point in your body. This is why the CDC recommends that you don't touch your face, your nose or eyes and that you must wash hands diligently and thoroughly. These are entry points areas that easily pick up and transfer viruses into your mucosal membranes. So, picking your nose, rubbing your eyes, licking your fingers are not advised.

3) Plan your shopping trip and get everything you need from the fewest number of stores as possible. Use a disinfecting wipe or spray sanitizer on the cart and wipe down all the parts you will touch.

4) Purchase fresh produce, frozen fruits, veggie, and anything that you can prep, store, and freeze quickly. Frozen produce is a healthy option to extend the time between shopping trips.

5) Put away food in the proper storage conditions promptly.

- i) Hot items should be kept hot, quickly consumed, and leftovers put away quickly.
- ii) Cold items should be promptly placed in the refrigerator or freezer, as appropriate.
- iii) Sealed items that are stored at room temperature should be stored in a pantry where temperature does not dramatically fluctuate; do not leave them in the car or garage.

6) If you wish to disinfect the surface of any items you purchase, be sure to use an appropriate method. Here's where following instructions is critical; if you don't, you are

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pouring chemicals into the water system, wasting money and products, and not actually disinfecting anything.

7) Here are the instructions:

Clean- You can use an all-purpose chemical cleaner OR soap and water with a clean cloth or paper towel. Cleaning includes scrubbing with detergent and making sure all the detergent is rinsed off completely with clean water. Simple: yes. Effective: also yes. You can stop right now, and you do not need to do anything further if you did a good job of cleaning.

Sanitize or disinfect – Use a chemical sanitizer or disinfectant to remove any remaining pathogens (if any) and virus particles. If you cleaned well, you really do not need to use this step. It's an additional precaution. To use a sanitizer or disinfectant, you must follow all the manufacturer's directions. For example, Lysol must be sprayed on the entire surface and allowed to remain on the surface for 3 minutes. Ideally, allow it 10 minutes to dry.

For the novel coronavirus, use any disinfectant from this CDC recommended EPA approved list.

<https://www.epa.gov/.../list-n-disinfectants-use-against-sars...>

8) Fresh produce should never be washed with soap. Any fresh produce you purchase should be washed in a bowl of warm water (use a produce brush to scrub the surface) and then rinse with warm running water.

9) Fresh produce should never ever be directly placed in a sink. No matter how well you believe you clean, sinks and refrigerators are some of the dirtiest places in a home. Studies have shown sinks harbor Salmonella, E.coli, other pathogenic bacteria, and viruses. Sink cleanliness has less to do with the appearance of cleanliness and more to do with the construction of the sink, joints, caulk points, and the stainless steel being beaten up over time and creating microscopic crevices where bacteria find harbor.

10) Proper handwashing for 20 seconds includes scrubbing between fingers, under and around nails, and on the back of the hands, which is incredibly important. If you wish to use a hand sanitizer, apply it thoroughly, cover all the surfaces, and allow to dry. Do not wipe. Many Coronavirus patients experience digestive discomfort and diarrhea and shed the virus in their stool. This makes handwashing for patients and healthy people critical for preventing the spread. Watch out for people who aren't washing their hands! Make sure we're all being sanitary (just in general a good thing).

11) I also recommend washing your face, hands, and any parts of the arm exposed while you were out shopping. Wash with soap and water.

12) Do not take food out of its original packaging until you are ready to use it or have a need to store in a different container. Original packaging preserves the food for the

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longest duration and provides you another way to extend the time between shopping events.

13) Lastly, know that there are thousands of food safety professionals working diligently behind the scenes, making sure all our food for every meal is going to be safe. These people are a combination of elbow grease and hard work, doing work many others wish not to do, with a passion for keeping our food system safe. They are a group of experts in chemistry, microbiology, toxicology, engineering, and the science of food. You may hear of recalls when they do occur, but they are few and far between. The level of precision it takes to get millions of pounds of food to millions of people to eat at every meal is truly a thing of beauty.

Don't let anyone who does not do it day in and day out think they can educate you on cleaning and sanitation.

Peace out –

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