



SAFER CLEANING AND DISINFECTANT USE DURING COVID-19 AT HOME

What you can do to prevent transmission and use safer products

⚠️ WHAT ARE THE CONCERNS?

Traditional disinfectants can contain chemicals with harmful health effects. Children are especially susceptible.

Bleach (sodium hypochlorite):

An acute eye, throat and skin irritant. Causes and triggers asthma.

Quats (quaternary ammonia):

Skin and throat irritants. Have been linked to reproductive harm in animal studies.

🧼 CLEANING VS DISINFECTING

Cleaning gets rid of germs and dirt from surfaces or objects. Cleaning doesn't necessarily kill germs; it reduces their numbers and the risk of infection by just washing germs down the drain. Soap alone is very effective at destroying the new coronavirus. Cleaning can involve washing your hands, using a laundry machine, or using an all purpose cleaner on a surface or object.

Disinfecting, actually kills germs on surfaces or objects by using chemicals. Disinfecting doesn't physically remove germs, but kills them. Disinfecting chemicals work by attacking certain parts of the germs and breaking them down. Do not use on your hands or body.

🧴 SAFER DISINFECTANTS

Safe disinfectant active ingredients that are effective against the virus:

- Alcohol (ethanol or isopropyl)
- Hydrogen peroxide
- L- Lactic acid
- Citric acid

Products with safer ingredients on the [EPA's List N](#) of products registered for use against SARS-CoV-2 include*:

- Clorox Commercial Solutions Hydrogen Peroxide Disinfecting Cleaner, Disinfectant, and Wipes
- Diversey's Oxivir TB Ready-To-Use Liquid, Wipes, Five 16, and Diversey's Alpha HP Multi-Surface Disinfectant Cleaner
- Lysol Disinfecting Bathroom Cleaner
- GOJO Industries PURELL Multi-Surface Disinfecting Cleaner, Disinfectant, Wipes, and Surface Disinfectant

*If products are unavailable, see DIY options and other guidance at becausehealth.org/covid-19

🕒 WHEN TO CLEAN

Frequent handwashing with soap and water and routine cleaning should be the first line of defense. Soap (does not have to be antimicrobial) and an all purpose cleaner will do. For non-toxic cleaners, EPA Safer Choice or fragrance free is a good place to start. High touch surfaces to be disinfected should be cleaned first.

🧴 WHEN TO DISINFECT

Disinfectants are an important tool for surfaces that are touched when someone re-enters the home, before washing hands. High touch surfaces include doorknobs, faucet handles, garage door openers...etc. Proper use of disinfectants is critical, including how long the surface needs to stay wet (contact time). Follow instructions carefully, never mix products, and ventilate as much as possible. If someone is sick, follow CDC guidelines for cleaning and quarantining.

📦 WHAT ABOUT DELIVERIES AND PACKAGES?

Groceries and deliveries are highly unlikely to be a source of transmission. If you are concerned you can:

- Dispose of packaging or leave objects untouched for a couple of days
- Wash produce and plastic packaged foods with soap and water.
- Disinfectants can be used on packaging but DO NOT spray disinfectants directly on food
- Wash hands after handling all packages and deliveries



HAND WASHING AND HAND SANITIZER DURING COVID-19



WHAT TYPE OF SOAP?

Any soap, liquid or bar soap, works to prevent transmission of the COVID-19 virus. Soap breaks down the fatty layer surrounding virus particles, effectively destroying it. Water helps rinse everything down the drain.

Antimicrobial or antibacterial soap is not necessary. There is no evidence it helps reduce germs more than plain old soap.



HAND WASHING OR HAND SANITIZER?

Hand washing is always preferred to hand sanitizer. The CDC recommends washing with soap and water because it reduces and removes all types of germs and chemicals on hands. Wash your hands when you cook, eat, use the bathroom, change diapers, blow your nose, cough, sneeze, care for others or animals, and upon returning home.

Hand sanitizer is great when you can't wash hands such as when you're out running errands or in your car. However, it isn't as effective at killing certain types of germs or if your hands are dirty or greasy. Also, hand sanitizer does not remove harmful chemicals, like pesticides, flame retardants, or lead dust on hands.



HAND SANITIZER

Make sure you use a gel or spray hand sanitizer with at least 60% alcohol (ethanol or isopropanol).

How to Use Hand Sanitizer Properly

- Use enough product to completely wet all areas of your hands.
- Rub for at least 20 seconds or until your hands feel dry.



Other Things To Look Out For

- Avoid sanitizers with synthetic fragrances. These products often contain phthalates, which are chemicals that disrupt hormones
- Make sure that kids do not have unsupervised access to hand sanitizer. There has been a large increase in calls to Poison Control Centers due to accidental ingestion.
- Do not spray disinfectants or cleaning products on your hands or body. These are only meant for use on surfaces.



HOW TO WASH YOUR HANDS

Proper hand washing reduces germs and prevents transmission of the COVID-19 virus and other sicknesses too.



1. Wet your hands with either warm or cold water and then apply soap.



2. Lather your hands by rubbing them vigorously together with the soap. Make sure to scrub the back of your hands, in between your fingers, and around and under your nails. Don't forget your thumbs too. Lathering and scrubbing helps lift dirt, grease, and germs from your hands.



3. If you scrub in every nook and cranny it should take you at least 20 seconds. You can count or learn a tune that is about 20 seconds long. "Happy Birthday" from beginning to end twice is about 20 seconds.



4. Rinse your hands well under running water. Water washes away the dirt, grease, and germs.



5. Dry your hands using a clean towel.



DIY CLEANERS, DISINFECTANTS, AND HAND SANITIZERS EFFECTIVE AGAINST THE COVID-19 VIRUS

DIY SAFETY

- It is preferred to buy a [EPA registered disinfectant](#), but if you cannot find products in stores, you can make them with a few simple ingredients.
- Never mix different products or DIY ingredients together. Mixing even common household items can be very dangerous.
- Keep all ingredients and DIY products out of reach of children.
- When cleaning and disinfecting, ventilate by opening windows and turning on a fan.

SAFER DISINFECTANTS & NON-TOXIC CLEANERS

Disinfectants: Traditional disinfectants containing bleach (sodium hypochlorite) or quaternary ammonia compounds (quats) can cause and trigger asthma and have other harmful health effects. Safe disinfectant active ingredients that are still effective against the virus include alcohol (ethanol or isopropyl), hydrogen peroxide, L-lactic acid, and citric acid. We highly encourage you to purchase products with these safer active ingredients on [EPA's List N](#) of products that are registered for use against the virus. If you cannot find them, ask retailers to stock them. Do not use disinfectants on your hands or body.

Cleaning Products: For in store purchases, a good place to start is a fragrance free product. For cleaning products that are third party certified, look for the [EPA's Safer Choice label](#), [Cradle to Cradle](#), [Greenguard certified](#), or [UL Ecologo](#). We also have lists of product recommendations on our site.

DIY CLEANERS

Surfaces need to be cleaned before disinfecting. Dirty or greasy surfaces reduce the ability of active ingredients in disinfectants to kill germs.

All Purpose Vinegar and Water

- Mix equal parts white vinegar and water. Not to be used on marble or granite.

All Purpose Soap and Water

- Add 2 tbsp of liquid soap to a 16 oz bottle (or 1 cup soap to 1 gallon water). Castile soap or a non-toxic dish soap both work

Glass Cleaner

- Mix ¼ cup vodka, ¼ cup white vinegar, 1 tbsp cornstarch, and 2 cups of hot water. Make sure to shake vigorously each time before you use it.

DIY DISINFECTANT SPRAY

Here are two common household products that can be used as disinfectants. Most spray tops will screw directly into these bottles.

- 70% Rubbing alcohol (ethanol or isopropyl) is an effective disinfectant with a contact time of 30 seconds.
- 3% Hydrogen peroxide is an effective disinfectant with a contact time of 3-5 minutes. Hydrogen peroxide should be stored in an opaque bottle.

DIY HAND SANITIZER

It is best to buy a FDA approved hand sanitizer at the store. If you cannot find any, you can make your own with the following ingredients:

- 2/3 cup rubbing alcohol (at least 70%)
- 1/3 cup aloe vera gel or vegetable glycerin
- Optional: drop of essential oil

Slowly pour the alcohol into the gel or glycerin and stir to combine. Pay attention to the alcohol content on the bottle you purchased. The final mixture needs to be 60% alcohol to be effective. Make sure to rub vigorously for 20 seconds.