The purpose of hand washing has not changed over the years, but the awareness of how important it is has increased. Hand washing is crucial because it helps prevent the spread of germs. You should wash your hands after touching any surface for optimal protection.

**Steps of Hand Washing with Soap and Water**

**Step 1:** Turn on water and adjust the flow and temperature.

\* Warm water is better for skin because it removes fewer protective oils from your hands, which makes them less prone to dryness.

 **Step 2:** Wet hands thoroughly by holding them under the running water.

Apply soap to hands. (Liquid: 2-5mL, Bar: rub thoroughly between hands)

Note: best to avoid typical anti-bacterial soaps/washes as they contain unwanted chemicals and kill off good protective bacteria.

Hold hands lower than the elbows so water flows from clean to dirty.

 **Step 3:** Thoroughly wash and rinse hands.

Using firm rubbing and circular movements, wash the palm, back, and wrist of each hand.

Interlace the fingers and thumbs and move the hands back and forth for at least 15 seconds.

Then rub fingertips against the palm of opposite hand. Clean underneath the nails and around the nail beds.

Rinse the hands for at least 10 seconds while using a rubbing motion. This ensures the removal of microorganisms.

**Step 4:** Thoroughly pat dry the hands and arms.

Dry hands thoroughly from fingertips to wrist, without scrubbing. Use a separate paper towel for each arm.

Discard paper towels.

\* Patting dry decreases skin dryness, which in turn decreases skin lesions which could harbor microorganisms.

**Step 5:** Turn off water.

Use a new piece of paper towel to turn off the faucet. Discard. (Or, you may prefer to use same paper towel on door/door handle when leaving a public restroom.)



**More Cleaning Tips**

* Viruses tend to be very fragile; the only thing that protects them is a thin outer layer of fat. That is why soap or detergent is the best remedy, because the foam cuts the fat **(that is why you need to rub so much: for 20 seconds or more, to make a lot of foam).**
* **Heat melts fat**; this is why it is so good to use hot water for washing hands, clothes and everything.
* **Alcohol or any mixture with alcohol (such as hand-sanitizers) over 70% dissolves fat,** especially the external lipid layer of the virus. Note: Hand sanitizers often have additional chemicals that may have negative health consequences, so washing your hands (as above) is still your best bet whenever possible.
* A mixture with **1-part bleach and 5 parts water directly dissolves the protein**, breaks it down from the inside.
* **When a virus is attached to a surface, it disintegrates over time.** This varies by virus but here are some numbers to consider*. This may not hold true for corona but are some general recommendations:*
	+ **3 hours (fabric)**; **4 hours (wood)**; **24 hours (cardboard)**; **42 hours (metal)**; **72 hours (plastic)**
* Viral molecules generally remain **more stable in external cold temperatures.** They also need **darkness and moisture to stay stable,** therefore, **dehumidified, dry, warm and bright environments will degrade** faster.
	+ UV LIGHT on any object that may contain it, may break down the virus protein.
* A virus cannot (in general) go through healthy skin, i.e. you usually can’t touch a virus and get sick, you usually have to expose it to a mucous membrane like your mouth or nose – You can, however touch it, and then touch your mucus membranes, so refrain from touching your face in general.
* Vinegar is NOT thought to be useful for viruses because it does not break down the protective layer of fat (but it is still a great cleaning tool in general).
* The more confined the space, the more concentration of the virus there can be. The more open or naturally ventilated, the less.
* Keep your NAILS SHORT so that bacteria and viruses do not hide there.

Source: Dr. Joel “Gator” Warsh

Integrative Pediatrics and Medicine, 11650 Riverside Dr Ste 2A, Studio City, CA 91602-1066

<https://integrativepediatricsandmedicine.com/>

**Recipes for Cleaning with Essential Oils**

**Hand Sanitizer**

Aloe vera juice

10 drops Thieves Essential Oil

1 Tbsp. vitamin E oil

Distilled water

2 oz dark glass bottle

Fill container 2/3 full with aloe vera. Add Thieves Essential oil, vitamin E oil and top off with distilled water. Give it a good shake and label.

*Source: DIY Recipes from Anyone Can DIY with Essential Oils by Amy Walquist*

*Book available at* [*www.growinghealthyhomes.com*](http://www.growinghealthyhomes.com)

**Household Cleaner Wipes**

1 Tbsp aloe vera juice

1 Tbsp castile soap, unscented

1 Tbsp vitamin E oil

1 tsp olive oil

15 drops Thieves Essential Oil

2 cups distilled water

Roll of sturdy, high quality paper towels

Cylindrical Rubbermaid container

Mix together aloe vera, castile soap, vitamin E oil, olive oil and essential oil. Stir in distilled water. Cut entire roll of paper towels in half using a serrated edge knife. Place cut roll inside container. Gently pour soap mixture over paper towels. Shake a few times to distribute. After the mixture soaks in, you should be able to easily remove the cardboard center.

*Source: DIY Recipes from Anyone Can DIY with Essential Oils by Amy Walquist*

*Book available at* [*www.growinghealthyhomes.com*](http://www.growinghealthyhomes.com)

**Note: Colloidal Silver is a popular alternative therapy; however, is does come with controversy.**

**Protocol for Sanitizers**

Topical use of alcohol can be effective as long as it is >70% and it's available as 70% isopropyl alcohol (rubbing alcohol) and 99% isopropyl alcohol.  The 99% will be more effective when adding ingredients which dilute it.  Mix together the following in a closed container:

4 oz  99% isopropyl alcohol

1 oz  colloidal silver (250ppm-1000 ppm) (optional)

The following essential oils – 15 drops Tea Tree, 15 drops Lavender, 10 drops Cinnamon Leaf

Shake well.

Pour into 1 oz or 2 oz spray bottles.  Shake well before each use.

Optional:  in a 4 oz squeeze bottle mix 3 oz of the above mixture with 1 oz of aloe vera gel for thicker consistency.

*Source:* *[wellevate.com](http://wellevate.com/%22%20%5Ct%20%22_blank) for practitioners*

* Colloidal silver is a suspension of silver particles in a liquid. It’s been used throughout history for bacterial, viral and fungal infections.
	+ Ingesting colloidal silver puts you at risk of developing a condition called argyria (skin turning blue or gray). Although this is less common, some believe it’s not worth the risk of consuming.
	+ Applying colloidal silver to your skin is considered less risky than ingesting it. However, if the solution contains very small nanoparticles, you may absorb these through your skin.

DISCLAIMER: The information contained herein should NOT be used as a substitute for the advice of an appropriately qualified and licensed physician or other healthcare provider. The content/links provided here are for informational and educational purposes only, and not intended to replace the advice offered by an individual’s healthcare provider. Please check with your physician or qualified nutritionist if you have health questions or concerns.

**References:**

* Dr. Joel “Gator” Warsh

Integrative Pediatrics and Medicine, 11650 Riverside Dr Ste 2A, Studio City, CA 91602-1066

<https://integrativepediatricsandmedicine.com/>

* Johns Hopkins Medicine [https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/how- can-i-protect-myself-from-coronavirus](https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/how-%20%20can-i-protect-myself-from-coronavirus)

<https://www.hopkinsallchildrens.org/ACH-News/General-News/Best-Practices-for-Sanitizing-Your-Home>

* Webmd <https://www.webmd.com/lung/news/20200306/power-of-hand-washing-to-prevent-coronavirus>
* Cleveland Clinic <https://health.clevelandclinic.org/tips-for-keeping-your-home-clean-in-the-time-of-covid-19/>

<https://my.clevelandclinic.org/health/articles/17474-hand-washing>

* Aerosol and surface stability of HCoV-19 (SARS-CoV-2) compared to SARS-CoV-1 
* <https://www.healthline.com/nutrition/colloidal-silver>
* In vivo analysis of dermal and systemic absorption of silver nanoparticles through healthy human skin.

Robert George, Steve Merten, Tim T. Wang, Peter Kennedy, Peter Maitz

Australas J Dermatol. 2014 Aug; 55(3): 185–190. Published online 2013 Sep 5. doi: 10.1111/ajd.12101

* Mechanisms of Silver Nanoparticle Release, Transformation and Toxicity: A Critical Review of Current Knowledge and Recommendations for Future Studies and Applications

Bogumiła Reidy, Andrea Haase, Andreas Luch, Kenneth A. Dawson, Iseult Lynch

Materials (Basel) 2013 Jun; 6(6): 2295–2350. Published online 2013 Jun 5. doi: 10.3390/ma6062295

PMCID: PMC5458943

* DIY Recipes from Anyone Can DIY with Essential Oils by Amy Walquist; Book available at: [www.growinghealthyhomes.com](http://www.growinghealthyhomes.com)
* [*wellevate.com*](http://wellevate.com/)*for practitioners*