How to clean your hands: Indian Scientists' Response to COVID-19

by Indian Scientists Response to Covid https://indscicov.in/



The good news is that viruses do not reproduce outside other living beings. We just need to make sure that the ones that are in the environment around us don't get into us. Coronaviruses specifically have an outer layer that is easily destroyed with soap. One of the best ways to decrease the chance of getting the virus is to regularly wash your hands properly with soap but other types of cleaners and methods are also effective in some cases. Here's a guide of how to clean your hands in different situations.



What are Viruses?

Viruses are different from most living things. They need to get inside the cells of living creatures to be able to multiply. They cannot move around on the surface of your hands or other surfaces. The coronavirus, in particular, multiplies inside live cells in your respiratory system. They cannot infect or multiply on the surface of your hands.

How do viruses get inside us?

When we touch a surface that has viruses, they get on to our hands and when we touch our face, nose, mouth or eyes, they get into our respiratory tract. It is because of this reason that maintaining hand hygiene and not touching our face is very important.



Use soap (preferred) or hand cleansers containing 60% alcohol. Soap breaks up the coronavirus by destroying its outer lipid layer and water washes away the broken virus particles. Just like soap, alcohol too breaks up this lipid layer. Soap bars are good, and you can share them as the coronavirus is destroyed by soap.

Soap is better than hand cleanser

Hands get cleaned better with soap and a cleanser may not take out other dirt on your hands. Soaps destroy coronaviruses better than cleansers. Also, a little bit of soap allows you to work up a good lather (foam) that completely covers the entire hand.







When to clean hands with soap?

- Before and after preparing food
- Before eating food
- · Before and after caring for someone who is sick
- Before and after using the bathroom
- Before and after treating a cut or wound
- After sneezing, blowing your nose, coughing
- After touching an animal (and its food and waste)
- After touching garbage
- After touching surfaces that might have been touched by others (e.g., hand-rails, doorknobs, doorbells, delivery packages, cash: paper and coins)
- When you return home after going out (after removing used face masks)
- When you hands are dirty

When to clean with hand sanitizer?

When soap and water are not available. Make sure the sanitizer contains at least 60% alcohol (but not 100%!). Do not use sanitizer if your hands are dirty.

How to clean your hands

Apply soap on the tap to remove viral particles on it, wet your hands and work up a lather while rubbing your hands for at least 20 seconds, wash away the dirt and any destroyed viruses. Let your hands dry in the air or use a towel to dry (to further remove destroyed viruses). This should make sure there are no viruses left on your hands. Alternatively, if there is no water at hand, you can also completely cover your hands with sanitizer, rub your hands well, making sure to cover all parts of it before you allow them to dry, for about 30 secs.

The temperature of water is not important. However, it is critical to rub your hands together to spread the soap all over your hands. You need some physical force to dislodge viruses along with dirt and oil from uneven or wrinkled skin. Think about how much force and energy you need to scrub to clean dirty vessels effectively! Simply applying a cleanser does not do it.

What to do if there is no running water?

If you have no running water, taking water out of large drums or buckets usually involves dipping something like a mug into the water. If everyone sharing the water container/source is not very careful, the containers (usually plastic) could get contaminated by coronavirus, which would then spread among people that use the water sources.

One alternative is to set up a Tippytap in your community. A Tippytap is a simple, low-cost hygienic device, operated by foot, that can generate a small stream of water as an alternative to a tap. It is a good way to avoid contamination of main shared water sources (such as drums) especially when they are used by large groups of people. However, care should be taken to ensure physical distancing at all times in the shared space.





What to do if water is scarce?

When water is scarce, use two bowls or containers of water. Use one to initially wet your hands, and use a bar of soap to lather up while rubbing for 20 secs as generally described. This destroys the virus. You can then rinse your hands in the second bowl, rubbing thoroughly as before to get the soap and virus off your hands, and dry in the air. Replace the second basin by the first when it gets very dirty. You might like to finally use a cloth or towel to wipe your hands dry. Try to keep one towel towel for each person, and wash it at the end of the day. If possible, have a separate place or a source of water for cleaning and a separate one for cooking.

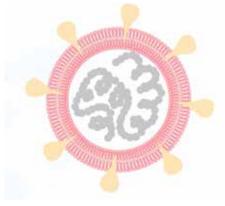
If you do not have access to water but have diluted soap solution, you can use it to lather and wipe it off with paper or sand/ash. If neither soap nor water is available, sand or ash should be used. But these should strictly be last resorts.

Caring for your hands

Washing your hands frequently may make them dry. Feel free to apply oil or moisturizer after washing your hands. If you have eczema or generally dry skin, use a gentle soap or soapless cleanser or use hand sanitizers that have moisturizer in them.

A list of ways to wash hands, from best to worst case

- 1. Soap and running water (20 secs);
- 2. set up a Tippytap in your community
- 3. Hand sanitizer (30 secs)
- 4. Wet hands in basin of water, soap (20 secs), rinse in a second basin of water, wipe clean
- 5. Dilute soap solution / ash / sand



before cleaning



After cleaning

Every attempt has been made for scientific accuracy; in case any inaccuracies are found, please bring it to our notice at indscicov@gmail.com.

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Keeping shops safe for workers and customers

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Essential service shops, like grocery stores and pharmacies, have been allowed to remain open during the lockdown announced to tackle COVID-19. Since these are also places that many people access, they are possible hotspots for the spread of the disease. While it is important to follow the general practices of washing hands, maintaining physical distance and keeping surfaces clean, there are some specific measures that you, as an essential service worker, need to take. These measures can help keep you, your colleagues and your families stay safe and healthy, while still continuing to provide the public with essentials.



General guidelines for shopkeepers

During the COVID-19 pandemic, the suggested guidelines of washing hands regularly and keeping your hands away from your face, are applicable to everyone. These measures should be followed strictly by all workers in the shop. While interacting with customers, it is also recommended that you wear a mask. Some people also choose to wear aprons, caps and gloves to be extra cautious. If you are selling loose, unpacked foods, such as in a ration shop, consider using simple devices such as a large plastic tube, bent for convenient delivery. This will ensure appropriate physical distancing between you and your customers.



If you or others working in the shop show any symptoms of COVID-19, such as a cough or fever, they should take leave and stay at home. Ideally, employers should give these workers leave with pay. This will ensure that the workers recover and, importantly, do not pass on the infection to other workers and customers.



You should try to take a soap bath as soon as you get home so as not to transfer any viruses that may have landed on you during the day onto your family. Leave the clothes you wore through the day in a separate, designated bucket. If possible, wash immediately with detergent and water.







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