

Diseases, Disorders and Injuries

Hand Washing: Reducing the Risk of Common Infections

On this page

[Is it important to wash your hands?](#)

[How do I properly wash my hands?](#)

[When should I wash my hands?](#)

[What about antibacterial soaps or hand sanitizers?](#)

Is it important to wash your hands?

Simply put, yes. Hand washing is the single most effective way to prevent the spread of infections. You can spread certain "germs" (a general term for pathogens like viruses and bacteria) casually by touching another person. You can also catch germs when you touch contaminated objects or surfaces and then you touch your face (mouth, eyes, and nose).

"Good" hand washing techniques includes using an adequate amount of soap, rubbing the hands together to create friction for at least 20 seconds, and rinsing under running water. Wearing gloves is not a substitute for hand washing, and hand washing is often required before and after wearing gloves.

There is additional information in OSH Answers about how the [common cold](#) is transmitted by contaminated hands.

Other steps that can be taken to reduce the spread of infections are discussed in the OSH Answers document [Good Hygiene Practices - Reducing the Spread of Infections and Viruses](#). Also see [Influenza](#) and [Pandemic Influenza](#).

Please note: For healthcare providers and certain other professions where workers are exposed to blood and certain other body fluids, using "routine practices" is preferred. Please see the OSH Answers document [Routine Practices](#) for more specific information.

When should I wash my hands?

Hand washing is important step when controlling infections as well as for personal hygiene. Hand washing is recommended:

- Before touching your eyes, nose, mouth or face.
- When hands are visibly soiled.
- After using the washroom (includes changing diapers or assisting a person when using the toilet).
- After blowing your nose or after sneezing in your hands.
- Before and after eating, handling food, preparing meals, drinking or smoking.
- After touching raw meat, poultry, or fish.
- After handling garbage or contact with contaminated surfaces such as garbage bins, or dirty cloths that have been used for cleaning.
- Visiting or caring for sick people.
- After wiping another person's nose, or handling soiled tissues.
- Before preparing or taking medications.
- When caring for another person who is sick, including after contact with blood or body fluids such as vomit or saliva.
- Before and after treating a cut or wound.
- Before inserting and removing contact lenses.
- Handling pets, animals or animal waste.
- After handling pet food or pet treats.

During a pandemic, it is also important to clean your hands regularly, including the situations listed above, as well as after you have been in a public space or business (e.g., grocery store, pharmacy, etc.), or touched a surface that is frequently touched by other people like doors, payment machines, gas pumps, etc.

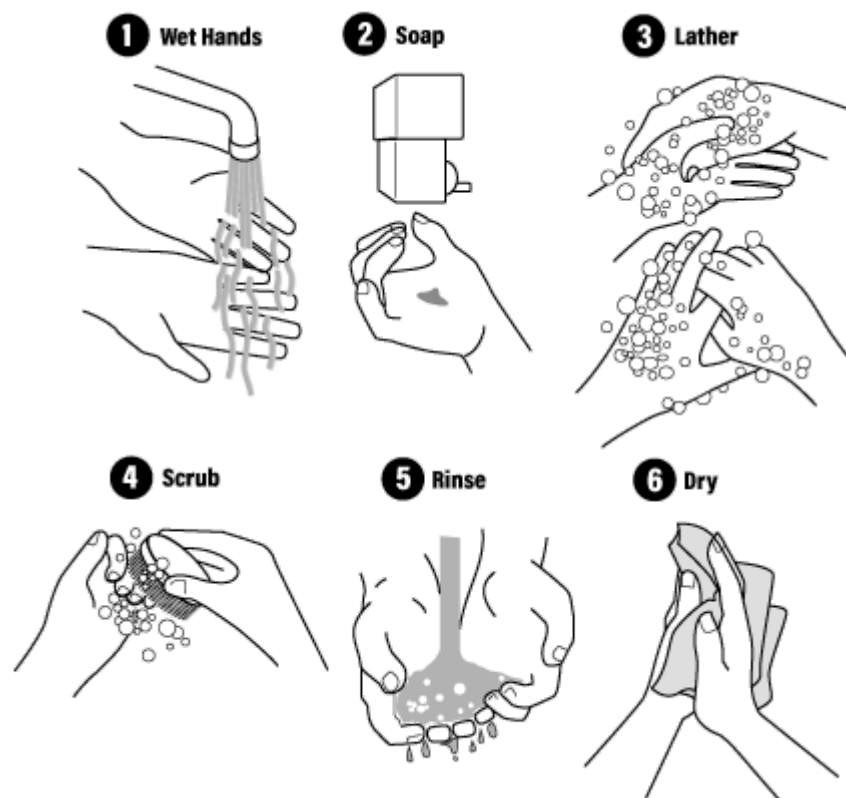
Making sure that employees wash their hands properly after using the washroom is very important in reducing disease transmission of gastrointestinal infections.

Using soap and lathering up is very important (rinsing hands in water only is not as effective). Use warm running water where possible for comfort, but water temperature is not important for effective cleaning. Hands should be washed for a minimum of 20 seconds all together (rinsing and lathering) – longer if the hands are visibly soiled. To help people (especially children) wash long enough, one option may be to sing a short song such as "Happy Birthday" or "A, B, C" - you might need to sing it twice if you sing fast. The idea of surgeons scrubbing their hands for an operation (as on TV) is very similar.

How do I properly wash my hands?

For effective hand washing, follow these steps:

- Remove any rings or other jewellery.
- Turn on the water tap and wet your hands thoroughly.
- Use soap (1-3 mL) and lather very well.
- Lather with soap for at least 20 seconds – make sure you wash all of your fingers and thumbs, between your fingers, under your fingernails, front and backs of your hands, wrists, and forearms.
- Rinse thoroughly under clean, running water. Use a rubbing motion to remove all soap residue.
- Dry your hands with a paper towel, clean towel or use an air dryer. NOTE that there may be concerns about using air dryers and the potential for the moving air to spread viruses. Single use paper towels or clean towels are preferred.
- If available, turn off the taps/faucets with a paper towel (so you do not re-contaminate your hands).
- Protect your hands from touching dirty surfaces as you leave the bathroom. For example, use the same paper towel to open the door.



Other tips include:

- Cover cuts with bandages and wear gloves for added protection (cuts are susceptible to infections and are an easy way for pathogens get into your body).

- Artificial nails and chipped nail polish have been associated with an increase in the number of bacteria on the fingernails. Be sure to clean the nails properly.
 - Do not touch your eyes, nose and mouth with unclean hands.
 - Assume that contact with any human body fluids is infectious.
 - Liquid soap in disposable containers is best. If using reusable containers, they should be washed and dried before refilling. If using a bar of soap, be sure to set it on a rack that allows water to drain or use small bars that can be changed frequently.
 - If dry skin occurs, use a moisturizing lotion.
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What about antibacterial soaps or hand sanitizers?

While it is true that some pathogens are not destroyed by regular soap and water, those that survive are surrounded by the soap molecules and are washed away in the rinse water. Antibacterial soaps are typically considered to be unnecessary for most purposes. The exception may be in a hospital where situations are present (e.g., before invasive procedures, when caring for immuno-compromised patients, critical care areas, intensive care nurseries, etc.). Antibacterial agents should be chosen carefully based on their active ingredients and characteristics, and when persistent antibacterial or antimicrobial activity on the hands is desired.

When there is no soap or water available, one alternative is to use hand sanitizers or waterless hand scrubs. Some of these products are made of ethyl alcohol mixed with emollients (skin softeners) and other agents. They are often available as a gel, or on wipes or towelettes. Alcohol-based hand sanitizers should contain at least 60% alcohol to be effective. Sanitizers do not eliminate all types of pathogens. Hand sanitizers may have odours which may be irritating to some users.

When using a hand sanitizer:

- Apply suggested amount to the palm of one hand based on the manufacturer's recommendation.
- Rub hands together.
- Spread and rub the product over your hands and fingers until your hands are dry.
- Use enough product to cover all of your hands and fingers.

Alcohol-based hand sanitizers are the preferred method for healthcare providers when the hands are **not** visibly soiled. The sanitizers can also be used by paramedics, home care attendants, or other mobile workers where hand washing facilities are not available. These alcohol-based hand sanitizers (with at least 60% alcohol) are also recommended for the general public during a pandemic. However, these agents are not effective when the hands are heavily contaminated with dirt, blood, or other organic materials. Hand washing with soap and water is recommended when hands are visibly soiled.

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