



# How to Prevent Wuhan Coronavirus Infection:

## LESSONS FROM NOROVIRUS PREVENTION

**Yaohua Feng, Ph.D.**  
Assistant Professor,  
Department of Food Science,  
Purdue University

Peer-reviewed by  
**Amanda Deering, Ph.D.,**  
and **Christine Bruhn, Ph.D.**

The 2019 Novel Coronavirus (2019-nCoV) is commonly known as Wuhan coronavirus, due to the first outbreak being reported in Wuhan, China. As of the writing of this article on January 29, 2020, the number of infections has exceeded 6,000 worldwide, the death toll is 132 and climbing, and the Centers for Disease Control and Prevention (CDC) has reported several cases among travelers from China to the United States. The Wuhan coronavirus has the world's attention.

Like many virus-causing diseases, there is no vaccine to protect against this virus. Our knowledge about this new virus is limited. However, other person-to-person contact infection viruses, such as norovirus, have been studied at great length, so we know this: Enhancing personal hygiene can help protect ourselves and others.

Norovirus is a waterborne and foodborne virus that causes vomiting and diarrhea. It is very contagious. CDC estimates that norovirus contributes to 19 million illness cases and 570 deaths in the United States

annually. Like the Wuhan coronavirus, there is no medication that treats people with norovirus illness. The best way to protect ourselves is to prevent possible infection.

This brief article offers food safety advice to stem the spread of virus infections. Although the spread of coronavirus is NOT related to food handling, the following recommendations will reduce the spread of virus.

### 1. **Cover your mouth and nose, when coughing and sneezing**

Coronavirus may transmit through the air. When coughing and sneezing, cover your mouth and nose with tissue paper. Throw the soiled tissue papers in the trash and wash your hands.

### 2. **Handwashing**

Handwashing is one of the most effective ways to protect against viruses. Proper handwashing involves three steps.

- Use soap, preferably liquid soap; bar soap can transmit pathogens.

- Wash your hands for at least 20 seconds. (Sing the “Happy Birthday” song twice.) Why that long? A virus can cling to the skin and be hard to remove.
- Dry your hands with a disposable towel. That may not sound environmentally friendly, but multiuse cloth towels can become a source of contamination. It is not recommended that you wipe your hands on your jeans or shake wet hands in the air.

A hand sanitizer helps but is not a substitute for handwashing. Hand sanitizers are not as effective at removing some virus particles – norovirus, for example. However, when soap and water are unavailable, use an alcohol-based hand sanitizer.

Wearing disposable gloves cannot substitute for handwashing. Gloves are used to protect us, but do not let them become a source of contamination. Once the virus contacts gloves, it can travel with the gloves. Dispose of used gloves and change them often. Between glove changes, you will need to wash your hands to avoid cross-contamination.

### 3. Contact surface cleaning and sanitization

Viruses can survive on furniture surfaces, such as door handles or tables, for two weeks. If you are unsure whether you should touch the surface, start with these two steps: cleaning and sanitizing. We recommend cleaning and sanitizing in a 25-foot circle.

First, wipe the surface with disposable towels immersed in soap and water, then dry the surface with dry disposable towels. Remember that if the surface was contaminated with a virus, the soiled towel could become a new contamination source. Dispose of the used towel. Second, sanitize the surface by applying a bleach solution or other disinfectant approved by EPA. Follow the instruction on labels when using bleach or other disinfectant, including how to dilute it, use it, and if a rinse step is required.

Do not share dishes, drinking glasses, cups, eating utensils, towels, bedding, or other items with a person who is confirmed to have, or being evaluated for, 2019-coronavirus infection.

### 4. Food safety

If you suspect food might be contaminated, throw it out. Reheating does not make all foods safe. If the food is contaminated by a bacterium that produces a toxin, the toxin may not be inactivated. This is especially



important for the following population groups who are at a higher risk of contracting foodborne pathogens: pregnant women, children age 5 or younger, adults age 55 or older, people with weakened immune systems (those experiencing chemotherapy, are HIV infected, or are organ transplant patients), and people with diabetes. If you are in one of those groups, be extra careful with your food preparation and handling practices. Avoid undercooked or raw foods, including raw vegetable and fruit.

In general, leftovers should be reheated to an internal temperature of 165°F (74°C). A food thermometer can help you ensure the food you cook or reheat reaches the temperature necessary to kill pathogens

### 5. When necessary, avoid preparing food for others

Though it is challenging, sometimes you have to say “no” to food handling at home and at work, especially when you feel sick and suspect your health condition may be related to a virus infection. If you are your family’s primary food preparer or are working in a food establishment, you are one of the most important persons when it comes to protecting your family or your customers from illness. If you feel sick, stop preparing food, and seek help.

For updates and more information, visit CDC’s website at <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>

## References

Centers for Disease Control and Prevention, 2020, 2019 Novel Coronavirus, Wuhan, China. Assessed on January 27, 2020, at <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>

Centers for Disease Control and Prevention, 2020, Norovirus. Assessed on January 27, 2020, at <https://www.cdc.gov/norovirus/index.html>