Personal Hygiene

What is effective handwashing?
It is the act of cleansing hands by applying soap and water, rubbing them together vigorously, rinsing them with clean water, and thoroughly drying them. This process gets rid of dirt and germs. Every handwashing stage is important and effectively contributes to soil removal and reduction of microorganisms that can cause illness.

Why is handwashing important?
Handwashing reduces the spread of pathogenic microorganisms that are transmitted through food. The hands of food employees can be colonized with microorganisms such as *Staphylococcus aureus* or contaminated with organisms from human fecal material, such as Norovirus, *Shigella* spp., hepatitis A virus, *E. coli* O157:H7, or *Salmonella* Typhi, or contaminated from raw animal foods, with *E. coli* O157:H7 and *Salmonella* spp. These and other pathogenic microorganisms can get on the hands from a number of sources and then move from hands to food during preparation and service.

An infected food employee and/or food employees with unclean hands, and exposed portions of arms or fingernails, can contaminate food. If a consumer eats contaminated food, foodborne illness may result.

When should food employees wash their hands?
They should do this immediately after engaging in activities that contaminate the hands and:

- When entering a food preparation area;
- Before putting on clean, single-use gloves for working with food and between glove changes;
- Before engaging in food preparation;
- Before handling clean equipment and serving utensils;
- When changing tasks and switching between handling raw foods and working with RTE foods;
- After handling soiled dishes, equipment, or utensils;
- After touching bare human body parts, for example, parts other than clean hands and clean, exposed portions of arms;
- After using the toilet;
- After coughing, sneezing, blowing the nose, using tobacco, eating, or drinking; and
- After caring for or handling services animals or aquatic animals such as molluscan shellfish or crustacea in display tanks.

What handwashing steps do food employees need to follow?
Clean hands and exposed portions of arms, including surrogate prosthetic devices for hands and arms, for at least 20 seconds by the following method:

1. Rinse under clean, warm running water;
2. Apply soap and rub all surfaces of the hands and fingers together vigorously with friction for at least 10 to 15 seconds, giving particular attention to the area under the fingernails, between the fingers/fingertips, and surfaces of the hands, arms, and surrogate prosthetic devices;
3. Rinse thoroughly with clean, warm running water; and

4. Thoroughly dry the hands and exposed portions of arms with single-use paper toweling, a heated-air hand-drying device, or a clean, unused towel from a continuous towel system that supplies the user with a clean towel.

Avoid recontamination of hands and arms by using a clean barrier, such as a paper towel, when turning off hand sink faucets or touching the handle of a restroom door.

It is important to follow these steps to remove germs from hands and ensure hands are as clean as possible. Thorough handwashing with warm water, the recommended amount of soap as indicated by the manufacturer, and proper hand drying are essential to reduce the possibility of hands transferring microorganisms to food.

How important is the temperature of water used for handwashing?
Warm water is generally more comfortable than cold water and encourages handwashing for the recommended duration. The water temperature used in handwashing can also affect the solubility or emulsification of some soils. Warm water is more effective than cold water in removing fatty soils. An adequate flow of warm water will cause soap to lather and aid in flushing soil quickly from the hands. The *2017 FDA Food Code* specifies that a handwashing sink shall be equipped to provide water at a temperature of at least 38°C (100°ŠF) through a mixing valve or combination faucet.

How important is properly drying your hands after handwashing?
Hand drying is a vital part of the handwashing process because thorough hand drying can provide an added reduction of microorganisms on the hands. The *2017 FDA Food Code* lists four different effective methods. These include drying the hands with heated or pressurized air dryer and using a single-use towel or a clean, unused towel.

Can hand antiseptics (hand sanitizers) be used in place of adequate handwashing in food establishments?
No. Hand antiseptics should be used only in addition to proper handwashing.

What are some ways a food establishment can promote compliance with handwashing requirements?
Train food employees on:
- When to wash hands;
- How to wash hands; and
- Where to wash hands.

Stress the importance of:
- Following proper cleaning procedures;
- Keeping hands and exposed portions of arms, including surrogate prosthetic devices for hands and arms, clean;
- Keeping fingernails trimmed;
- Washing hands *only* in designated handwashing sinks; and
- Following the appropriate use of hand antiseptics.

Managers are responsible for:

- Ensuring that food employees wash their hands, as required;
- Providing accessible, properly maintained, designated handwashing sinks;
- Making sure that handwashing sinks have clean, running warm water, soap and paper towels, or other approved means for drying;
- Posting signage that notifies food employees of the handwashing requirement; and
- Monitoring food employees to ensure proper handwashing and good hand hygiene protocol during the work shift.

Tips for promoting effective handwashing practices in food establishments:

- Make food employees aware of media coverage on local and national foodborne outbreaks. This awareness reinforces the reporting of symptoms, illness, and good handwashing procedures.
- Create opportunities to remind food employees each week about the importance of hand hygiene.
- Emphasize handwashing at the beginning of a shift, after using the toilet, after handling raw meat, and between changes of gloves. This emphasis will help keep good hand hygiene at the forefront.
- Use a "buddy" system so that fellow food employees can support each other.
- Use training and incentive programs to motivate food employees to take ownership and practice good personal hygiene habits.

An FDA study published in 2018 found food establishments were frequently out of compliance with the Food Code recommendations for proper and adequate handwashing. In the study, the percent of food establishments observed to be out of compliance with handwashing recommendations ranged from 65% in fast food restaurants to 81% in full-service restaurants.

The following elements can impact handwashing compliance among food employees:

- **Make it a Priority**: When management enforces handwashing compliance as a mandatory requirement, employees are more likely to follow the requirement.
- **Motivate**: Provide motivation for handwashing, which has proven to have an impact on improving handwashing compliance.
- **Remove Deterrents**: Conveniently located handwashing sinks have a huge impact on handwashing compliance. Studies have found that availability of handwashing sinks supplied with soap and running water has a big influence on compliance; however, materials and practices that cause irritation to the skin can decrease handwashing compliance. For example, excessive handwashing or use of harsh soaps can lead to skin irritation and subsequently decrease handwashing compliance.
- **Provide Positive Reinforcement**: Rewards for compliance generally have a positive impact on improving handwashing compliance.

Should food employees with one hand or those with a surrogate prosthetic device for hands and arms follow these handwashing procedures?

Yes, this requirement for thorough handwashing is achievable through reasonable accommodation in accordance with the ADA. In order to achieve the intent of this requirement, devices are available that are attachable to a lavatory. These devices enable a one-handed food employee to generate the necessary friction to achieve the intent of this requirement.

What needs to be done with food that is contaminated by food employees, consumers, or other persons through contact with their hands, bodily discharges, such as nasal or oral discharges, or other means?
The food shall be discarded as per the FDA Food Code, 3-701.11(D) Discarding or Reconditioning Unsafe, Adulterated, or Contaminated Food.

No Bare Hand Contact with Ready-to-Eat Foods

When hands are heavily contaminated, effective handwashing practices may not be enough to prevent the transmission of transient pathogens from the hands to RTE foods. The *2017 FDA Food Code* discourages bare hand contact with RTE food (i.e., food that is eaten without further washing or cooking) and requires the use of suitable utensils such as scoops, spoons, forks, spatulas, tongs, deli tissue, single-use gloves, or dispensing equipment when handling these food items.

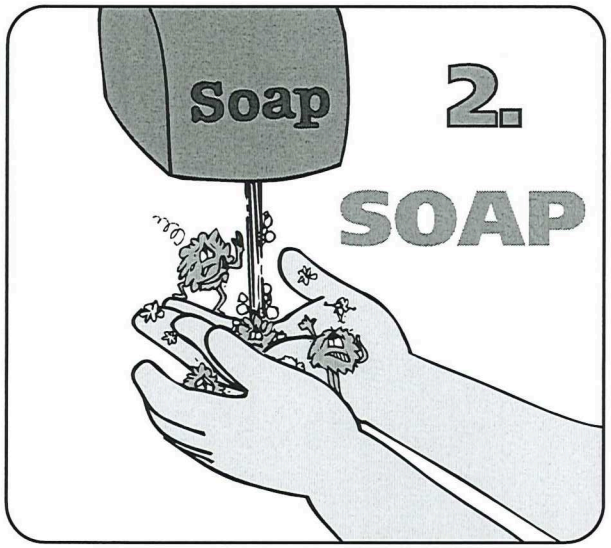
Bare hand contact with an RTE food, such as sandwiches and salads, can result in contamination of food and contribute to foodborne illness outbreaks. Therefore, food employees should always use suitable utensils such as spatulas, tongs, single-use gloves, or dispensing equipment when handling RTE foods. Single-use gloves used along with handwashing can be an effective barrier to decrease the transfer of microorganisms from the hand to food. However, gloves are not total barriers to microbial transmission, and will not be an effective barrier alone for food employee without education on proper glove use and handwashing requirements.

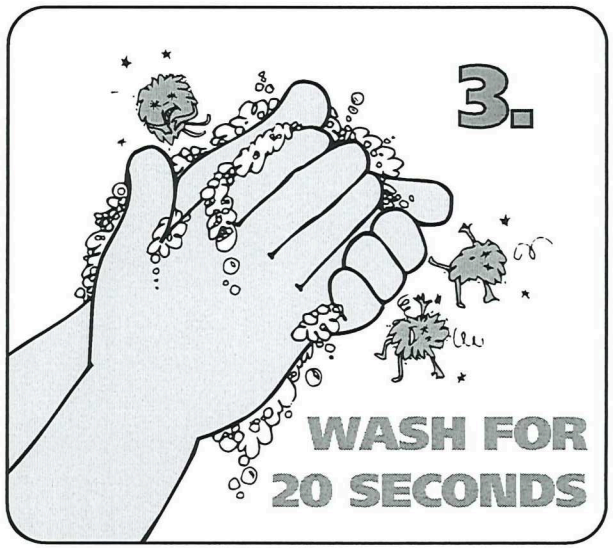
Follow these instructions for the use of single-use gloves:
- Always wash hands before donning gloves.
- Change disposable gloves between handling raw products and RTE products.
- Do not wash or reuse disposable gloves.
- Discard torn or damaged disposable gloves.
- Cover an infected lesion (cut, burn, or boil) with pus with a waterproof covering and disposable glove.
- Wear disposable gloves over artificial nails, nail polish, or uncleanable orthopedic support devices.

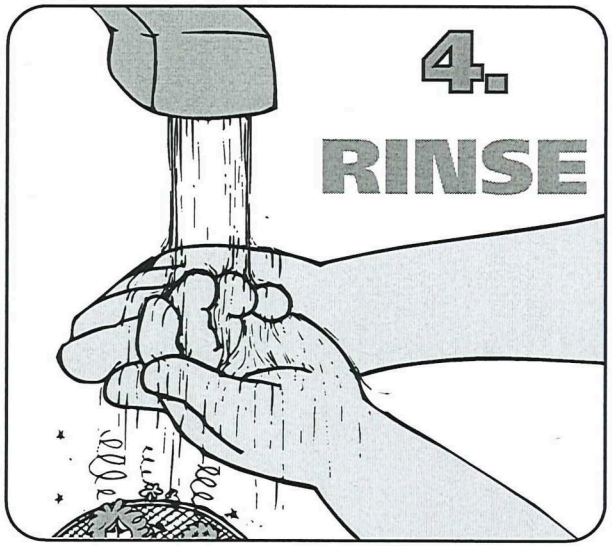
The *2017 FDA Food Code* allows bare hand contact with RTE food only when the regulatory authority has granted prior approval for an alternative procedure. The alternative procedure must address the management of food employees and related food handling activities to prevent food contamination, including the enforcement of thorough handwashing practices after toilet use.

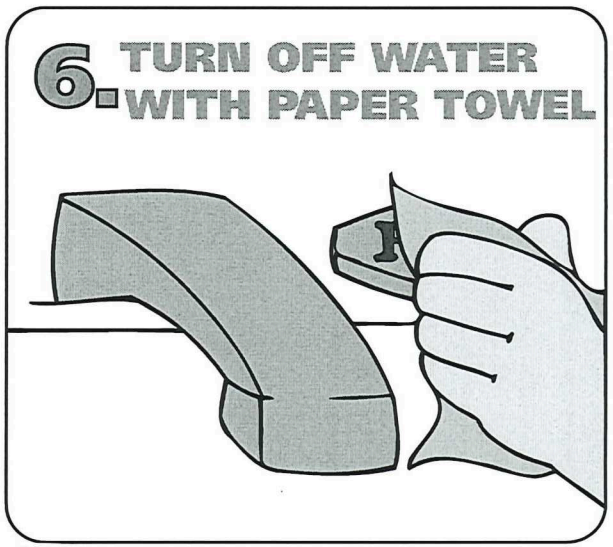
Be A Germ-Buster

WASH YOUR HANDS









Thawing Food Properly Fact Sheet

Here are the four acceptable ways to thaw food safely:

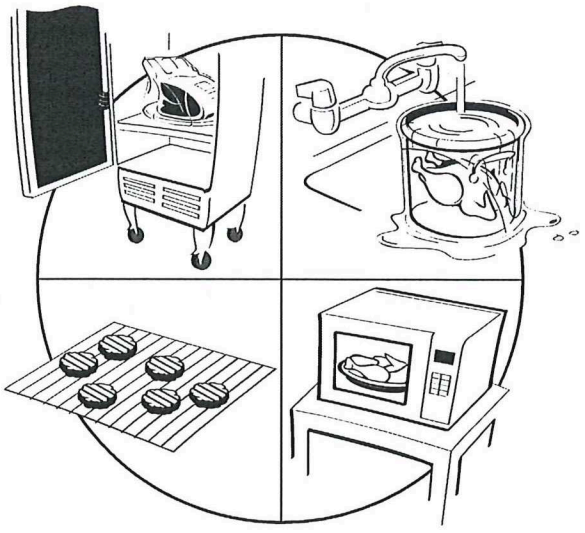
In a refrigerator. Thaw food in a refrigerator at 41°F (5°C) or lower to keep dangerous microorganisms from growing. Plan ahead when thawing large items such as turkeys—they can take several days to thaw.

Under running water. Thaw food submerged under running water at a temperature of 70°F (21°C) or lower. The water flow must be strong enough to wash food particles into the overflow drain.

Freezing does not kill microorganisms, but it does slow their growth. When you thaw frozen food, parts of the outer surface warm up enough to allow dangerous microorganisms to grow. Since it can take more than four hours to thaw most food, it is very important to thaw it properly, so dangerous microorganisms are not allowed to grow.

In a microwave oven. You can safely thaw food in a microwave oven if the food will be cooked immediately. Large items such as roasts or turkeys may not thaw well in a microwave.

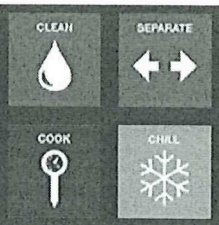
As part of the cooking process. You can thaw food as part of the cooking process. For example, when you cook frozen hamburger patties on the grill, you thaw the hamburgers and then cook them to a minimum internal temperature of 155°F (68°C) for 15 seconds all in one step.



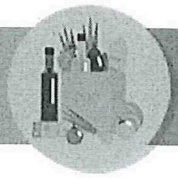
FDA U.S. FOOD & DRUG ADMINISTRATION

Food Safe Shopping & Storage

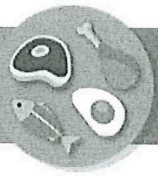
March 2018



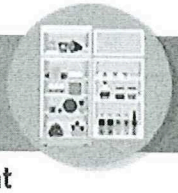
Following these tips when buying and storing food can help prevent foodborne illness



DO	DON'T
Keep produce separate from meat, poultry, seafood, and eggs in shopping carts and bags	Choose meat, poultry, or seafood in damaged or leaking packaging

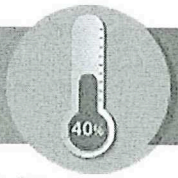


DO	DON'T
Place meat, poultry, seafood, and eggs in plastic bags at checkout	Buy eggs with cracked shells or damaged cartons

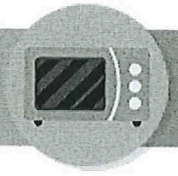


DO	DON'T
Keep produce and other ready-to-eat foods in a separate area of the refrigerator from meat, poultry, seafood, and eggs	Remove eggs from carton or keep them in the refrigerator door

DO	DON'T
Refrigerate food within 2 hours of grocery shopping, or 1 hour if kept in air temperatures above 90 °F	Place raw meat, poultry, or seafood on upper shelves of the refrigerator where they can drip onto other foods

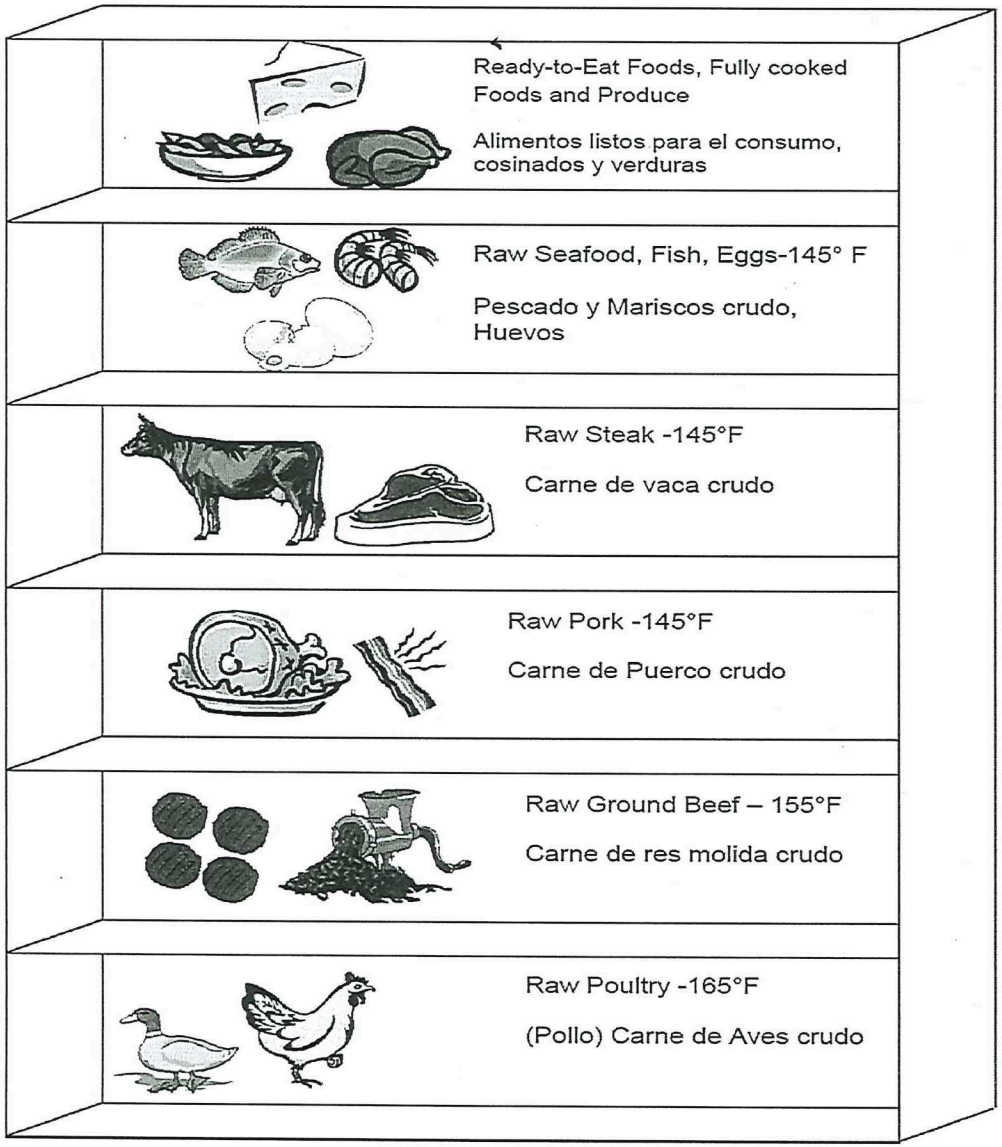


DO	DON'T
Set refrigerator temperature to 40 °F or below and freezer at 0 °F or below (as indicated by an appliance thermometer)	Overfill the refrigerator or freezer



DO	DON'T
Defrost food in the refrigerator, in cold water, or in the microwave – and cook immediately	Thaw meat, poultry, or seafood on the counter

Prevent Cross Contamination



- Separate raw animal foods from ready-to-eat foods during storage, preparation holding and display.