

# Handle Food Safely

Clean, Separate, Cook, Chill.

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## How to handle food safely

Thousands of people in Ontario suffer from foodborne illness (also called food poisoning) each year.

Most foodborne illness is caused by bacteria. But it can also be caused by viruses, parasites, toxins (or poisons) produced by some bacteria, or chemicals that may get into your food. Although not traditionally considered a foodborne illness, allergens in certain foods (like peanuts) may also cause mild to severe reactions in some people.

You cannot see, smell or taste bacteria or other germs that can cause foodborne illness. They can multiply to millions in a few short hours at the right temperature.

Symptoms of foodborne illness can include:

- nausea
- vomiting
- diarrhea
- fever
- stomach cramps

It is not always easy to tell if your symptoms have been caused by food.

You can start feeling sick anywhere from hours to weeks after the food has been eaten. Most often, people get sick within a couple of days after eating food that has become contaminated.

Sometimes there can be long-term complications and even death.

People most likely to become very sick are:

- seniors
- young children
- pregnant women
- people who are already unwell

If you think you have a foodborne illness, visit your doctor and notify your local public health unit right away.

Reduce the risk of foodborne illness by following these four steps:

**Clean, Separate, Cook, Chill.**

## Step 1: Clean

Clean your hands, surfaces and equipment. Do it often and do it well! Bacteria can get onto hands, cutting boards, knives, dishcloths, countertops and the food itself.

### **Handwashing tips**

1. Wet your hands with warm running water.
2. Lather your hands with soap for 15 to 20 seconds.
3. Rinse hands thoroughly and pat dry with a paper towel.
4. Use the paper towel to turn the tap off.

### **When should you wash your hands?**

Wash your hands **before** preparing, handling, serving or eating food.

Wash your hands **after**:

- using the washroom
- sneezing, coughing or blowing your nose
- touching your face, mouth or hair
- handling raw meat or other uncooked foods, or the surfaces they have been on (e.g., cutting boards, countertops)
- handling dirty utensils or dishes
- handling money
- smoking
- touching pets
- cleaning
- handling garbage

Do not handle food when you are sick – especially if you have been vomiting or have diarrhea.

### **Equipment cleaning tips:**

Clean kitchen equipment and dishes with hot water and dish detergent, rinse and then sanitize.

To sanitize dishes and cutting boards do the following:

- Add 2.5mL (1/2 teaspoon) of household bleach to every 1 litre (4 cups) of warm water you put in the sink. Soak dishes and cutting boards for at least 45 seconds. Let them to air dry completely before use.

To sanitize kitchen counters, tables, taps, sinks and appliances (including fridge door handles), follow these steps:

- Mix 5 mL (1 teaspoon) of household bleach per litre (4 cups) of water. Put mixture in a labeled spray bottle. Squirt the mixture on countertops and other surfaces. Wipe with a clean cloth or paper towel. Make a fresh solution often.

To clean dishcloths, aprons and towels, run them through the washing machine often.

### **Step 2: Separate**

Do not contaminate your food!  
Cross-contamination occurs when bacteria spread from one food item to another. This can easily happen when cooked or ready-to-eat foods come into contact with raw meat or other uncooked foods, dirty hands or

contaminated utensils. **Keep raw and ready-to-eat foods separate!**

Common sources of cross-contamination are:

- cutting boards, countertops, plates and other food surfaces
- slicers, mixers and grinders
- serving utensils, knives and tongs
- hands
- insects
- food probe thermometers (these are used to test the inside temperature of food)
- juices from raw meats dripping onto cooked or ready-to-eat foods

### Separation tips:

- Store raw meat, poultry and seafood on the bottom shelf of the fridge.
- Use separate cutting boards (e.g., always the same one for raw meat and a different board for fruits and vegetables).
- Wash, rinse and sanitize cutting boards, utensils and food probe thermometers before re-using.
- Never put cooked food on a plate, cutting board or surface used for raw meat, poultry, seafood or eggs.
- Marinate foods in the refrigerator and do not use the same marinade for basting.
- Do not smoke while preparing food.

### Step 3: Cook

Cook food to a high enough temperature and keep it out of the danger zone! The danger zone, where bacteria grow rapidly, is between 4°C (40°F) and 60°C (140°F).

- To properly cook meat, poultry, fish or eggs, heat them to a high enough temperature for a long enough time to prevent harmful bacteria from multiplying (see temperature chart).
- After cooking, keep hot food at 60°C (140°F) or hotter until it is served.
- Serve hot food while hot, or put it in the fridge or freezer as soon as possible once cooled (within two hours of preparation).

### Cooking tips:

- Make sure that food and water come from a safe and reliable source.
- Use a food probe thermometer to measure the inside temperature of cooked foods (e.g., meat, poultry, fish) to check that they are cooked to a high enough temperature.
- Do not eat hamburgers rare. Always cook hamburgers and other ground meat to the correct inside temperature.
- Cook fish to the correct inside temperature until it flakes easily with a fork.
- Use a microwave oven properly by first covering the food, then stirring and rotating for even cooking. This

will help to avoid cold spots in the food.

- Bring sauces, soups and gravy to a full boil every time you re-heat them. Heat other leftovers thoroughly to 74°C (165°F).

## Step 4: Chill

Keep cold foods cold! This will reduce the risk of foodborne illness because cold temperatures slow down the growth of bacteria.

Keep food out of the danger zone.

- Keep food at 4°C (40°F) or colder in the refrigerator
- Keep food at -18°C (0°F) or colder in the freezer

## Refrigerator tips:

- Refrigerate meat, poultry, fish, eggs and dairy products within two hours of purchase or preparation.
- Store eggs in the main body of the refrigerator, rather than the fridge door.
- Transfer hot food to small, shallow containers before refrigeration. This helps food cool quickly in the fridge.
- Do not over-pack the fridge. Cool air must circulate to keep food safe.
- Use thermometers in refrigerators and coolers to check that they stay cold enough.

## Defrosting tips:

Here are some safe and effective ways to defrost your food:

- Defrost food in the fridge. Place the food on a lower shelf in a container and allow 10 hours per kilogram to thaw.
- Defrost food under cold running water.
- Defrost food in the microwave. Cook it immediately after thawing.

**Never defrost food on the kitchen counter.** The outer layers of food will defrost first, before the inside thaws. Bacteria can grow in these conditions.

## Food transportation and storage

- Keep food covered at all times unless it is being prepared or served.
- For transport or storage, keep food tightly covered in clean food containers or single-use food bags, wraps or foil.
- If you are transporting hot food from one location to another, put the covered food in an insulated thermal container or wrap it in foil and cover with heavy towels. Include a thermometer to check that the food stays at 60°C (140°F) or hotter.
- If you are transporting cold or cooling food from one location to another, put the covered food in a cooler with ice or frozen gel packs. Include a thermometer to check that the food stays at 4°C (40°F) or colder.

## Temperature rules for safe cooking

Cook until the inside temperature of the food reaches the temperatures shown below and then continue cooking for at least 15 seconds.

<b>Whole poultry</b> (e.g., chicken, turkey, duck)	<b>(82°C) 180°F</b>
<b>Stuffing in poultry</b>	<b>(74°C) 165°F</b>
<b>Cut or ground poultry</b> <ul style="list-style-type: none"><li>• Cut poultry (e.g., breast, thighs, wings)</li><li>• Ground poultry</li></ul>	<b>(74°C) 165°F</b>
<b>Food mixtures</b> <ul style="list-style-type: none"><li>• Food mixtures (e.g., soups, stews, casseroles, stocks, gravy) containing poultry, eggs, meat or fish</li></ul>	<b>(74°C) 165°F</b>
<b>Meat</b> <ul style="list-style-type: none"><li>• Beef, lamb, veal or goat (roasts and steaks – medium done)</li><li>• Pork or fresh cured ham</li><li>• Ground meat other than poultry (e.g., beef, pork)</li></ul>	<b>(71°C) 160°F</b>
<b>Fish</b>	<b>(70°C) 158°F</b>

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- Thunder Bay District Health Unit
- Toronto Public Health
- York Region Health Services Department

Public Health Unit Consultation Sites:

- City of Hamilton Public Health Services
- Durham Region Health Department
- Huron County Health Unit
- Leeds, Grenville and Lanark District Health Unit
- Niagara Region Public Health Department
- Ottawa Public Health
- Peterborough County-City Health Unit
- Sudbury & District Health Unit

## Government of Ontario information

[www.health.gov.on.ca](http://www.health.gov.on.ca)

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