

# HOME FOOD SAFETY GUIDE







## ABOUT THIS GUIDE

This guide explains safe food handling practices that you can do at home to reduce your risk of food-borne illness.

Many food-borne illnesses can be prevented by following these four steps: clean, separate, cook and chill.

## BE FOOD SAFE



# FOOD-BORNE ILLNESS

People get sick from food prepared at home more often than you might think. It is estimated there are about four million cases of food-borne illness every year in Canada. That is one in eight Canadians.

Food-borne illness is caused by food or drink that contains bacteria, viruses or parasites such as *campylobacter*, *E. coli*, *norovirus*, *listeria* and *salmonella*.

Common symptoms include:

**Diarrhea**  
**Vomiting**

**Stomach cramps**  
**Fever**

**Nausea**  
**Headache**

These symptoms can appear several hours, several days or more than a month after eating contaminated food.

# WHO IS AT RISK?

Most people recover completely from food-borne illness. However, adults aged 60 and older, pregnant women, children under the age of five years and people with weakened immune systems are at higher risk for more serious health problems. Some of these conditions include kidney failure, chronic arthritis, miscarriage and even death.

Take extra care to prevent illness

Fortunately, most cases of food-borne illness can be prevented.





## CLEAN

Wash hands and surfaces often.

Bacteria can spread throughout the kitchen and get on hands, cutting boards, knives and countertops. Clean often to prevent illness.

## Wash hands and kitchen equipment often

- Wash your hands with soap and warm water for 20 seconds before and after handling food
- Wash cutting boards, dishes, utensils and countertops with hot, soapy water after any contact with raw meat, poultry, seafood, eggs and unwashed fresh produce
- Wash kitchen cloths frequently in the hot cycle of a washing machine



## Wash fresh fruit and vegetables

- Wash fresh fruit and vegetables under cool running water. This includes fruit and vegetables with a skin/rind that is not eaten
- Use a clean vegetable brush to wash produce with a firm skin, including carrots, potatoes, melons and squash
- Cut away any bruised or damaged areas on fruits and vegetables as harmful bacteria can thrive in these areas

## MYTH:

Washing eggs, meat and poultry removes bacteria.

This is not true. Washing eggs before storing removes the protective coating on the shell, allowing bacteria in.

Bacteria in raw meat and poultry juices can spread to other foods, utensils and surfaces. This is called cross-contamination.



## HANDWASHING

is one of the best ways to prevent food-borne illness.



## SEPARATE

Don't cross-contaminate.

Cross-contamination occurs when bacteria are spread from one food to another. To avoid this, keep raw meat, poultry and seafood (and their juices) separate from cooked or ready-to-eat foods.

## Grocery cart and fridge

- Separate raw meat, poultry and seafood from other food in your grocery cart, grocery bags and fridge
- Place raw meat, seafood and poultry on the bottom shelf of your fridge so juices from these foods cannot drip onto other foods

## Cutting boards

Use one cutting board for ready-to-eat food and a separate one for raw meat, poultry and seafood.



## SERVING PLATES

Always put cooked food on a **clean** plate. Never place it on an **unwashed** plate previously used for raw meat or unwashed produce.

# FOUR STEPS TO FOOD SAFETY



## COOK

Cook to proper temperatures.

Food is properly cooked when it is at a **high enough temperature** to kill harmful bacteria, such as *E. coli*, *salmonella* and *listeria*. Be sure to cook food to proper internal temperatures.

## Use a food thermometer

**Always** use a food thermometer to check the internal temperature of the thickest part of meat, poultry, fish or seafood because food can cook unevenly (See the *Safe Internal Cooking Temperatures* chart).



## MYTH:

### You can tell if meat is cooked by checking its colour

Despite common belief, the colour of meat is not a reliable sign that meat is done or safe to eat. Meat can turn brown before all the bacteria are killed. The only way to know if food is thoroughly cooked is to use a food thermometer.

## Microwave safely

Cover your food and rotate the dish once or twice during cooking (unless you have a turntable) and stir the contents of the dish. This will help to cook your food evenly. Allow for standing time to finish cooking.

## Keep food hot

If cooked food is not eaten immediately, keep it hot at 60°C (140°F) or higher, until it is eaten. If you don't keep hot food hot, chill it quickly. Bacteria can grow quickly in the danger zone between 4°C to 60°C (40°F to 140°F).

## Reheat leftovers

- Reheat solid foods to 74°C (165°F) or higher
- Reheat sauces, soups and gravy to a rolling boil. Make sure to stir while heating
- Reheating leftovers in a slow cooker is not recommended



## FOOD THERMOMETER TIPS:

- Insert the thermometer into the thickest part of the meat, all the way to the middle. Make sure the thermometer is not touching any bone or fat
- Clean the thermometer with warm water and soap each time after you use it (between readings)
- Digital instant-read food thermometers are the easiest to handle



## Oysters:

Cook raw oysters to a minimum internal temperature of 90°C (194°F) for a minimum of 90 seconds.



## CHILL

Chill promptly.

The bacteria in food stored at **room temperature** doubles every 20 minutes. One of the most effective ways to prevent food-borne illness is to keep food properly chilled. Chilling food slows the growth of harmful bacteria.

## Set your fridge at 4°C

Is your fridge cold enough? Make sure your fridge is set at 4°C (40°F) or lower. Check the temperature from time to time with a fridge thermometer. If your fridge does not have a built-in thermometer, you can purchase one at a store that sells kitchen gadgets.

## Remember the “two-hour rule”

- Refrigerate or freeze perishable food, prepared food and leftovers within **two hours**. This “rule” includes food from the grocery store or food left on the counter
- Discard food that has been left out for longer than two hours

# DEFROST FOOD SAFELY

There are three ways to defrost food safely:

1. In the fridge
2. Under cold running water
3. In the microwave  
(If you use a microwave to defrost, cook the food immediately afterward)

Avoid defrosting food at room temperature, this includes on the countertop.



Keep **hot** foods **hotter** than **60°C (140°F)**.  
Keep **cold** foods **colder** than **4°C (40°F)**.

## Store canned food safely

- Never eat food from jars with loose or bulging lids, or eat from badly dented, bulging or leaking cans
- Store cans in a cool, dry, clean place
- Eat within one to two years or before the 'best before' date on the jar/can

## Follow 'best before' dates correctly

The 'best before' date on food packaging indicates how long the unopened food will keep its freshness and nutritional value. Once it is opened, the 'best before' date no longer applies.

The storage life of any food depends on how that food is stored. Use the 'best before' date, along with the Cold Storage Guidelines, to determine how long to keep food in the fridge.



## STORE FOOD SAFELY

- Divide large amounts of leftovers into shallow containers for quicker cooling in the fridge
- Refrigerate leftovers promptly and use them as soon as possible (See Cold Storage chart)

## MYTH:

**You can tell if food has spoiled by the way it looks, smells and tastes.**

Using sight, smell and taste to judge if food is safe is unreliable. As we age, our sense of sight, smell and taste is reduced. These less acute senses reduce our ability to notice the warning signs of spoiled food. At the same time, some foods may be unsafe to eat without tasting or smelling bad.

## What is the format of best before dates?

Best before dates must be in both English and French, using the words "best before" and "meilleur avant" with a date in the *year-month-day* format. The best before date will look like this example:

**Best before 18 NO 01**  
**Meilleur avant**

### Best before date abbreviations

January	JA
February	FE
March	MR
April	AL
May	MA
June	JN
July	JL
August	AU
September	SE
October	OC
November	NO
December	DE

Expiry dates are found on some foods such as meal replacements, nutritional supplements, infant formulas and formulated liquid diets. After the expiry date, these products may not have the same nutrient content declared on the label.

# HIGH RISK FOODS

According to Health Canada, the foods listed below have been linked to outbreaks of food-borne illness. These foods must be **fully cooked** to eliminate bacteria. To reduce risk, adults aged 60 and older, pregnant women, children under the age of five years and people with weakened immune systems should avoid eating these foods in a raw or semi-cooked state:

- Raw meat or undercooked poultry
- Raw fin fish and shellfish, including oysters, clams, mussels and scallops
- Raw or unpasteurized milk from cows or goats, or foods made from unpasteurized milk
- If you use cheese made from unpasteurized milk, only eat cheeses aged for 60 days or longer
- Soft cheeses, including feta, brie, camembert and queso blanco fresco
- Raw or lightly cooked egg or egg products, including salad dressings, cookie or cake batter, sauces and homemade eggnog
- If you choose to make eggnog with whole eggs, heat the milk mixture to 71°C (160°F)
- Foods made from commercially pasteurized eggs have a reduced risk
- Raw sprouts, including alfalfa, clover, radish and mung beans
- Unpasteurized fruit juice and cider



# FOOD SAFETY IN THE COMMUNITY

Many churches, community centres, private clubs and condominium complexes in York Region have kitchens used for potluck suppers, seniors' luncheons and other community functions.

If you are a volunteer or if you participate in community events, please pass on these four food safety steps: **clean, separate, cook** and **chill**. Remind everyone to make food safety a priority.



be food safe.



clean. separate.  
cook. chill.  
www.befoodsafe.ca

For more information on food safety, please call York Region Health Connection at 1-800-361-5653, TTY 1-866-512-6228 or visit [york.ca/foodsafety](http://york.ca/foodsafety)

## Sources:

Canadian Partnership for Consumer Food Safety Education. [befoodsafe.ca](http://befoodsafe.ca)

Safe Food Handling for Adults 60+. Health Canada, 2010.

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# SAFE INTERNAL COOKING TEMPERATURES

<b>Ground Meat &amp; Meat Mixtures</b> (for example burgers, sausages, meatballs, meatloaf, minute steak and casseroles)	
Beef, Veal, Lamb and Pork	71°C (160°F)
Turkey, Chicken	74°C (165°F)
<b>Fresh Beef, Veal, Lamb (pieces and whole cuts)</b>	
Medium - Rare	63°C (145°F)
Medium	71°C (160°F)
Well done	77°C (170°F)
<b>Fresh Pork (for example ham, pork loin, ribs)</b>	
Pork (pieces and whole cuts)	71°C (160°F)
<b>Ham</b>	
Fresh (raw)	71°C (160°F)
Pre-cooked (to reheat)	74°C (165°F)
<b>Poultry (for example chicken, turkey, duck)</b>	
Pieces	74°C (165°F)
Whole	82°C (180°F)
Duck and Goose	82°C (180°F)
Stuffing, cooked alone or in bird	74°C (165°F)
<b>Raw Breaded Chicken Products</b>	
Raw Product - <b>do not microwave</b>	74°C (165°F)
<b>Seafood</b>	
Fish	70°C (158°F)
Shellfish (for example, shrimp, lobster, crab, scallops, clams, mussels and oysters) - <b>Since it is difficult to use a food thermometer to check the temperature of shellfish, discard any that do not open when cooked.</b>	74°C (165°F)
<b>Egg</b>	
Egg dishes & casseroles	74°C (165°F)
<b>Leftovers, Casseroles and Others (for example hot dogs, stuffing, leftovers)</b>	
Reheated	74°C (165°F)
<b>Game Chops, Steaks and Roasts (for example deer, elk, moose, caribou/reindeer, antelope and pronghorn)</b>	
Well Done	74°C (165°F)
<b>Ground Meat</b>	
Ground Meat and Meat Mixtures	74°C (165°F)
Ground Venison and Sausage	74°C (165°F)
<b>Large Game</b>	
Bear, Bison, Musk-Ox, Walrus, etc.	74°C (165°F)
<b>Small Game</b>	
Rabbit, Muskrat, Beaver, etc.	74°C (165°F)
<b>Game Birds/Waterfowl (for example wild turkey, duck, goose, partridge and pheasant)</b>	
Whole	82°C (180°F)
Breasts and Roasts	74°C (175°F)
Thighs, Wings	74°C (165°F)
Stuffing (cooked alone or in bird)	74°C (165°F)
<i>Cooking temperatures provided by Health Canada date modified: 2016-12-19</i>	

# COLD STORAGE GUIDELINES

For refrigerators and freezers

Use these time limit guidelines to help keep refrigerated and frozen food safe to eat.

Refrigerator  
4°C (40°F)

Freezer  
-18°C (0°F)

Fresh Meat		
Beef—steaks, roasts	2-4 days	10-12 months
Pork—chops, roasts	2-4 days	8-12 months
Lamb—chops, roasts	2-4 days	8-12 months
Veal roasts	3-4 days	8-12 months
Ground meat	1-2 days	2-3 months
Fresh Poultry		
Chicken, turkey—whole	2-3 days	1 year
Chicken, turkey—pieces	2-3 days	6 months
Fresh Fish		
Lean fish (such as cod, flounder)	3-4 days	6 months
Fatty fish (such as salmon)	3-4 days	6 months
Shellfish (clams, crab, lobster)	12-24 hours	2-4 months
Scallops, shrimp, cooked shellfish	1-2 days	2-4 months
Ham		
Canned ham	6-9 months	Don't Freeze
Ham, fully cooked (half and slices)	3-4 days	2-3 months
Bacon and Sausage		
Bacon	1 week	1 month
Sausage, raw (pork, beef, turkey)	1-2 days	1-2 months
Pre-cooked, smoked links or patties	1 week	1-2 months
Leftovers		
Cooked meat, stews, egg or vegetable dishes	3-4 days	2-3 months
Gravy and meat broth	1-2 days	2-3 months
Cooked poultry and fish	3-4 days	4-6 months
Soups	2-3 days	4 months
Hot Dogs and Lunch Meats		
Hot dogs	2 weeks	1-2 months
opened	1 week	
Lunch meats	2 weeks	1-2 months
opened	3-5 days	1-2 months
Deli Foods		
Deli meats	3-4 days	2-3 months
Store-prepared or homemade salads	3-5 days	Do not Freeze

**Refrigerator  
4°C (40°F)**

**Freezer  
-18°C (0°F)**

TV Dinners / Frozen Casseroles		
Keep frozen until ready to serve		3-4 months
Eggs		
Fresh— in shell	3-4 weeks	Do not freeze
out of shell	2-4 days	4 months
Hardcooked	1 week	Does not freeze well
Egg substitutes	10 days	Do not freeze
opened	3 days	1 year
Dairy Products		
Milk	Check best before date	6 weeks
opened	3 days	
Cottage cheese	Check best before date	Does not freeze well
opened	3 days	
Yogurt	Check best before date	1-2 months
opened	3 days	
Butter—salted	8 weeks	1 year
unsalted		3 months
opened	3 weeks	Do not freeze
Cheese		
soft	1 week	Does not freeze well
semi-soft	2-3 weeks	8 weeks
firm	5 weeks	3 months
hard	10 months	Up to a year
processed	Several months	3 months
opened	3-4 weeks	Do not freeze
Commercial Mayonnaise		
(Refrigerate after opening)	2 months	Do not freeze
Vegetables		
Beans, green or waxed	5 days	8 months
Carrots	2 weeks	10-12 months
Celery	2 weeks	10-12 months
Lettuce, leaf	3-7 days	Do not freeze
Lettuce, iceberg	1-2 weeks	Do not freeze
Spinach	2-4 days	10-12 months
Squash, summer	1 week	10-12 months
Squash, winter	2 weeks	10-12 months
Tomatoes	Not recommended	2 months

High-acid foods require a boiling water canner  
 High-acid foods include those with a pH of less than 4.6.

Low-acid foods require a pressure canner  
 Low-acid foods include those with a pH of more than 4.6. Tomatoes are borderline high-acid food and require an acid, such as lemon juice or vinegar, to be added for safe canning. Mixtures of low and high-acid foods, such as spaghetti sauce with meat, vegetables and tomatoes, are considered low-acid foods and require a pressure canner to destroy botulism causing bacteria.

Food pH Chart

	<b>9.0</b>	
	<b>8.0</b>	Egg whites, olives
Neutral pH	<b>7.0</b>	Water, milk
	<b>6.0</b>	Meat, melons, cheese
	<b>5.0</b>	Vegetables, bread
Acidic pH	<b>4.0</b>	Tomatoes, fruits/jams
	<b>3.0</b>	Orange juice, pears, plums
	<b>2.0</b>	Vinegar, lemon/lime

## BE FOOD SAFE IN YOUR HOME CANNING PRACTICES

### Clean

- Wash hands with soap and warm water for 20 seconds before and after handling food
- Wash fruits and vegetables, including those with rinds thoroughly with clean, cool running water before preparing them
- Clean and sanitize all work surfaces, utensils and equipment. Keep them clean during all stages of the canning process to avoid cross-contamination
- Sterilize your jars. This means washing them in hot soapy water and then boiling the jars according to recipe instructions
- Inspect jars to make sure they are free of cracks and chips

### Separate

- Use one cutting board for washed, fresh produce and a separate one for raw meat, poultry and seafood
- Only use new self-sealing lids and make sure the sealing compound is not damaged before use. Screw bands may be re-used
- Discard any rusted or dented bands

### Cook

- Use only current, tested home canning recipes. Never substitute the jar size or the amounts of ingredients that are recommended in the recipe
- Use the appropriate heat-processing method according to the acidity of the food
- During processing, check that adequate cooking or heating temperatures are maintained

# FOOD SAFETY TIPS FOR HOME CANNING

## Chill

- Label and date all home canned foods before storing
- Store in a cool, dry place. For best quality, use within one year from the date they were made
- Once the container has been opened, refrigerate leftovers

## Food-borne illness

According to Health Canada, symptoms of botulism usually appear within 12 to 36 hours after eating contaminated food. These symptoms may include:

- Nausea
- Headache
- Vomiting
- Double vision
- Fatigue
- Dryness in the throat and nose
- Dizziness

These symptoms will usually last two hours to 14 days but some can last longer.

## Serious health risks can include:

- Respiratory failure
- Paralysis
- Death

Call 9-1-1 to seek immediate medical attention if you experience these symptoms. Persons at higher risk for serious health effects include pregnant women, children under the age of five, adults over the age of 60 and people with weakened immune systems. For more information, contact York Region Health Connection at 1-800-361-5653, TTY 1-866-512-6228.

## Introduction

Home canning is an excellent way to preserve food product freshness. If you are considering home canning, there are things you can do to ensure that your food products are safe.

## Know the risks

Canned foods that are not prepared properly at home can lead to botulism, a deadly form of food poisoning caused by the bacterium *C. botulinum*. Botulism spores are hard to kill and are extremely heat-resistant. Foods contaminated with the *C. botulinum* toxin may not look or smell spoiled. Do not eat from cans or bottles that are dented, leaking or have bulging ends, as this could mean that the contents are unsafe.

## Safe home canning practices

Home canning requires special equipment including heavy-duty glass jars, metal lids, metal rings, metal bands, boiling water canners and pressure canners. Always read the manufacturer's instructions for your canning equipment and follow recipes carefully. Changing ingredients and cooking times can result in unsafe food.

Before you start canning, determine the acid level of the food.

High-acid foods	Low-acid foods
Fruit	Most fresh vegetables except tomatoes
Jams, jellies, marmalades	Meat and poultry
Fruit butters	Seafood – fish and shellfish
Pickles and sauerkraut	Soup and milk
Tomatoes with added lemon juice or vinegar	Spaghetti sauce with meat, vegetables and tomatoes