

Food Safety for Patients with Weakened Immune Systems



Saskatchewan
Health Authority

Healthy People, Healthy Saskatchewan

Individuals at Increased Risk

If you are at increased risk, you should take special care when handling and preparing food.

Patients undergoing cancer treatment often have weakened immune systems, and are at an increased risk of infection. These individuals have a greater chance of developing a serious illness from eating food contaminated with bacteria, viruses, or parasites, and need to take extra precautions.

It is recommended that patients whose neutrophils are low follow these guidelines. Patients undergoing autologous stem cell transplants should follow these guidelines for 3 months after their transplant and patients undergoing allogeneic stem cell transplants should follow these guidelines for 6 months after their transplant.

Select Safer Food Choices

Safer Food Choices

Type of Food to Avoid

Type of Food	Food to Avoid	Safer Food Choices
Deli Meat and Hot Dogs	Non-dried deli meats, such as bologna, roast beef and turkey breast. Cold hot dogs straight from the package.	Dried and salted deli meats such as salami and pepperoni. Non-dried deli meats heated until steaming hot. Hot dogs cooked to safe internal temperature (74 F).
Meat, Poultry, and Pâtés	Raw or undercooked meat or poultry, such as rare steak or steak tartare. Fresh pâtés and meat spreads.	Meat and poultry cooked to a safe internal temperature. (Refer to the Internal Cooking Temperatures Chart on page 10). Pâtés and meat spreads sold in cans.
Seafood	Raw or undercooked seafood such as sushi, poke bowls. Raw oysters, clams, and mussels. Refrigerated, smoked seafood.	Seafood cooked to a safe internal temperature of 74°C (165°F). Cook until the shell has opened. Canned seafood (smoked salmon, canned tuna, etc.)
Eggs and Egg Products	Raw or lightly cooked eggs or egg products, including salad dressings, cookie dough or cake batter, homemade mayonnaise, aioli and homemade eggnog.	Egg dishes thoroughly cooked to a safe internal temperature. Eggs should be cooked until the yolk is firm. Pasteurized egg products in a carton. Commercially made mayonnaise and salad dressings. Homemade eggnog must be heated to 71°C (160°C).
Dairy Products	Raw or unpasteurized dairy products, including unpasteurized milk, kefir, soft and semi-soft cheese, such as Brie and blue-veined cheese.	Pasteurized dairy products, and hard cheeses such Colby, Cheddar, Swiss, and Parmesan.
Sprouts	Raw sprouts such as alfalfa and bean sprouts.	Thoroughly cooked sprouts.
Beverages	Unpasteurized fruit/vegetable juice, cider, beer or other unpasteurized alcohol, kombucha tea.	Pasteurized fruit/vegetable juice, cider, or beer. Check with a doctor before consuming any alcohol.
Water	Well water that has not passed safety tests (major ion test and bacterial test) by the local health department.	Municipal tap water, bottled water, well water that has passed a safety test, boiled well water.
Other	Any foods/fluids with probiotics added (ex. Activia and Danactive yogurt, Kefir, Yakult and GoodBelly drinks) Home canned goods (jam, preserves, pickled foods). Fresh fermented foods.	Canned goods commercially made and processed. Commercially fermented foods that have been pasteurized after fermentation.

Where Safety Starts: Shopping

Safe eating begins with the food you buy and how it is handled from the moment you put it in your grocery cart.

- Separate raw meat, poultry, fish and seafood from other foods in your grocery cart. Ready-to-eat foods such as raw fruit and vegetables that have been contaminated by these foods may contain harmful bacteria.
- Buy packages that are properly sealed and cans with no dents or bulges.
- Eggs should be refrigerated and have no cracks.
- Put raw food in individual plastic bags and keep them separate from ready-to-eat foods in your car and in your grocery bags as well.
- Do not buy raw meat that is touching other meat.
- Always check 'best before' dates and 'packaged on' dates. Only buy raw meats that have been packaged that day.
- Do not buy more than a 1 week supply of raw fruits and vegetables and avoid bruised and damaged produce.
- Put frozen and refrigerated foods into your grocery cart last to limit the time they are at room temperature.
- Make sure frozen foods are solid and there are no ice crystals forming on the outside of the package.
- If you use reusable grocery bags, always remember to wash them with warm soapy water after each use. Have separate bags that are only used for raw foods.

Storing Food

Foods that need to be refrigerated or kept frozen should be stored as soon as you return home from grocery shopping.

- Store raw meat, poultry, fish and seafood in different containers, separate from other food. Keep them on the bottom shelf of your refrigerator.
- Label frozen food with the date so it is easy to remember when you purchased it.
- Wrap dry goods before storing.

What to do with Leftovers

- Place in a covered container, label with the date, and refrigerate right away. Consume within 3 days.
- If you do not plan to eat leftovers within 3 days, place food in the freezer instead.
- Do not refreeze thawed food.

The Danger Zone

It is extremely important to keep food out of the Danger Zone. **The Danger Zone is between 4°C and 60°C and it is between these temperatures that bacteria can grow quickly.**

- Make sure your refrigerator is set at 4°C or lower, and your freezer at -18°C or lower.
- Defrost raw meat, poultry, fish and seafood in the refrigerator, microwave, or immersed in cold water (changing water every 30 minutes) and cook immediately once thawed.
- **2 Hour Rule:** If food is left in the danger zone for less than 2 hours, it can be safely refrigerated or used immediately. If the time exceeds 2 hours the food should not be consumed.

Preparing

Everything that comes in contact with your food needs to be clean. Properly cleaning your hands, surfaces, utensils, raw fruits and veggies, will reduce contamination and your risk of becoming ill from bacteria.

Hands

- Wash your hands often, with warm soapy water and dry them with a paper towel. Always wash your hands after using the washroom, touching your pet, taking out the garbage, and before and after touching raw meat, poultry, fish or seafood.

Surfaces & Utensils

- Clean kitchen surfaces, dishes, and utensils with warm soapy water to reduce cross-contamination.
- Use a number of cutting boards so that raw meat, poultry, fish and seafood can be kept separate from raw fruit and vegetables and cooked food.
- Cutting boards used for raw meat, poultry, fish and seafood must be disinfected with a bleach solution.

Bleach Solution:

Mix 2 tsp bleach with 8 cups water in sink. Submerge cutting boards in solution to disinfect. Rinse boards with hot water.

*Do not mix bleach with other chemicals.

*Do not store bleach and water solution.

Raw Fruit & Vegetables

- Wash under cool running drinkable water. You do not need to use anything other than water to clean. Avoid soaking in a sink full of water as sinks contain bacteria that can transfer to your food.
- Scrub produce that has a firm skin, or dirt on the surface.
- Rinse packaged and prepared produce even if marked 'pre-washed.'



Cooking

To avoid food borne illness, always cook food to a safe internal temperature.

- Appearance and colour are not good enough to determine if a food is cooked. Health Canada recommends that you check food with a digital food thermometer.
- To use a food thermometer, remove the food from the heat and insert the thermometer through the thickest part of the meat. If you are cooking many pieces, take the temperature of several pieces.
- Make sure to wash the thermometer with warm, soapy water before and after taking a temperature, and between different pieces.



Internal Cooking Temperature Chart

Type of Food	Temperature Reading
Beef, Veal, Lamb (pieces and whole cuts)	71°C (160°F) medium 77°C (170°F) well done
Ground Meat and Meat Mixtures (burgers, sausages, meatballs, meatloaf, casseroles)	71°C (160°F) beef, veal, lamb, pork 74°C (165°F) poultry
Poultry (chicken, turkey, duck)	74°C (165°F) pieces 85°C (185°F) whole
Pork (pieces and whole cuts)	71°C (160°F)
Egg dishes	74°C (164°F)
Other (hot dogs, stuffing, leftovers,	74°C (165°F)

Source: Health Canada and the Canadian Food Inspection Agency

Taking Food to a Friend

Home cooked meals can be very comforting for someone who is sick. Here are some guidelines to keep food safe if you are bringing a meal to a friend.

- Cook food and portion into single serving containers.
- Refrigerate or freeze the item immediately. Make sure to label it with the date.
- When you are ready to leave your home, pack the food in a cooler with an ice pack for the trip.
- Once you arrive at your friend's home, reheat the food fully in the microwave or store it in the refrigerator. If he or she does not plan to eat the item in the next 3 days, it is safer to store it in the freezer.
- For immediate use, you can use an insulated thermal container for hot liquids, such as soups and stews.

Eating Out / Ordering In

When you eat out or order in you should avoid the same high-risk foods you would avoid at home. Ordering hot food is your best choice. However, you have little control over the way food is prepared in restaurants.

- Your food should be well cooked and prepared just before it is served or delivered to you.
- Eat food that is steaming hot.
- Avoid food from buffets, salad bars and street vendors.
- Avoid using condiments that have not been stored in the fridge.
- Download the Tomati Restaurant Inspector App or check out the SK Health Inspection website for more information in your area.

Kitchen Cleanliness Checklist

Post this on your fridge for an everyday reminder:

- ◇ Throw out foods that have been in the freezer for more than 3 months.
- ◇ Throw out leftover foods that have been in the refrigerator for more than 3 days.
- ◇ Throw out raw fruits and vegetables that are slimy or are starting to show mould.
- ◇ Throw out food that has expired.
- ◇ Throw out canned goods that have dents, bulges, cracks or leaks. Don't taste it first!
- ◇ Change dishcloths and kitchen towels daily.
- ◇ Wash and sanitize hand towels and dishcloths. Use the hot cycle of the washing machine.
- ◇ Wash cutting boards after each use. Use hot, soapy water then rinse with hot water and let dry thoroughly.
- ◇ Disinfect cutting boards used for raw meat, poultry, fish and seafood after each use.
- ◇ Use a pump or liquid soap for hand washing.
- ◇ Clean the inside of the refrigerator weekly.
- ◇ Clean any spills immediately whether they are in the refrigerator, in the freezer, on the counter or on the floor.
- ◇ Place working thermometers in your refrigerator and freezer and check temperatures regularly.

Refrigerator temperature - at or below 4°C (40°F)

Freezer temperature - at or below -18°C (0°F)

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The Saskatchewan Health Authority works in the spirit of truth and reconciliation, acknowledging Saskatchewan as the traditional territory of First Nations and Métis People.