



Region of Waterloo
PUBLIC HEALTH AND
EMERGENCY SERVICES

Safe and Healthy Children: A Public Health Resource Manual for Child Care Providers





Region of Waterloo
PUBLIC HEALTH AND
EMERGENCY SERVICES

Food and Drinking Water Safety



Chapter 7: Food and drinking water safety

Contents

Glossary	4
Food safety	7
Safe water	18
Service disruption.....	19
Factsheets and resources	23

Glossary

Alcohol-Based Hand Rub (ABHR): A liquid, gel or foam formulation of alcohol (e.g., ethanol, isopropanol) used to reduce the number of microorganisms on hands when the hands are not visibly soiled.

Blood-borne Infections: Blood borne infections spread by way of blood to blood contact with an infected person. These infections are not spread by water or food, or by casual daily contact at home or elsewhere. The most common blood borne infections are:

- Hepatitis B
- Hepatitis C
- HIV (human immunodeficiency virus)

Body fluid: Liquids originating from inside the human body and can be excreted or secreted (e.g., feces, nasal secretions, saliva, sputum, urine and vomit)

Cleaning: The physical removal of foreign material (e.g., dust, soil) and/or organic material (e.g., blood, secretions, excretions, microorganisms). Cleaning physically removes rather than kills microorganisms. It is accomplished with water, detergents and mechanical action.

Cohorting: Keeping children and staff that have been exposed to illness or ill people separate from staff and children who are not ill and have not been knowingly exposed to ill people.

Danger Zone: The temperature range (4°C/40°F and 60°C/140°F), where disease causing micro-organisms (bacteria) can grow rapidly.

Disinfectant: A product that is used on surfaces which results in disinfection of the surface or equipment. Disinfectants are applied only to inanimate objects. Some products combine a cleaner with a disinfectant.

Disinfection: The inactivation of disease-producing microorganisms. Disinfection does not destroy bacterial spores. Items must be cleaned thoroughly before effective disinfection can take place. See also, *Disinfectant*.

Droplets: Large particles of liquid expelled from the upper respiratory tract through sneezing or coughing. Droplets can also be expelled from gastrointestinal tract through vomiting. Droplets do not remain suspended in the air and usually travel less than two meters. Microorganisms contained in these droplets are then deposited on surfaces.

Droplet Precautions: Used in addition to routine practices, and involves wearing a mask and either protective eyewear or face shield when within two meters of a person who has an infection that can be transmitted to others by droplets. (e.g., influenza, norovirus)

Enteric Illness: Enteric illnesses are illnesses that cause diarrhea, nausea, vomiting, abdominal cramps, fever, and other symptoms. They can be transmitted by ingesting contaminated food or water, exposure to infected vomit or feces, direct or indirect contact with an infected person or animal, or through contact with contaminated objects.

Exclusion: Children and staff that are required to stay away from the child care center for a prescribed period of time while they have the potential to transmit disease.

Hazardous Food: Any food that can support the growth of disease causing microorganisms and cause food poisoning or a foodborne illness. Hazardous foods contain milk or milk products, eggs, meat, poultry, fish, shellfish, or other products that are high in protein, high in moisture and have a neutral pH. Hamburgers, hot dogs, dairy products, chicken and cooked rice are some examples of hazardous foods

Humidex: The humidex is an index that describes how hot weather feels. It takes both temperature and humidity into consideration to derive a perceived temperature and comfort level.

Humidity: Humidity refers to the amount of water present in air.

Immune-Suppressed: Someone whose ability to fight an infection is decreased. Usually this is due to immune-suppressing medical conditions (i.e., HIV) or treatments that suppress the immune system (i.e., cancer treatments)

Infection Prevention and Control (IPAC): Evidence-based practices and procedures that, when applied consistently, can prevent or reduce the risk of transmission of microorganisms to staff, children and visitors.

Infectious agent: Microorganism capable of invading body tissue and multiplying (e.g., bacteria, fungus, parasite, virus).

Outbreak: An outbreak is when a greater than expected number of children and/or child care providers have similar symptoms in a short period of time.

Respiratory infection: An infection that affects the respiratory system, including the lungs, nose and throat.

Routine Practices: Certain protective behaviors, such as performing hand hygiene and wearing gloves, recommended when there is the possibility of being exposed to body fluids or other infectious materials.

Sanitize: To reduce the number of harmful micro-organisms on a surface to safe levels by using a chemical sanitizing solution.

Sharps: Any object that could break, cut or puncture the skin can be considered a "sharp".

Transmission: The passing of a disease from an infected person or group to another person or group. This may or may not involve intermediate hosts or objects that carry the disease from one person to another.

Source for definitions:

[Infection Prevention and Control Public Health Ontario](#)

Food safety

Food safety and the prevention of foodborne illness is especially important in child care settings. Young children are at higher risk of complications from illnesses spread through contaminated food or water. This is due to their under-developed immune system.

It is strongly recommended that child care centre food handlers and supervisors be properly trained and certified in safe food handling procedures.

Food premises requirements

The Food Premises Regulation outlines specific building and equipment requirements that are necessary for ensuring food safety. These include:

- Adequate mechanical ventilation where required (washrooms, cooking equipment) and that they be hygienically maintained.
- Adequate protection against the entrance of insects, vermin, rodents, dust and fumes.
- A potable water supply that is considered safe for drinking. Water may be from a municipal or private well water source.
- Food contact surfaces and non-food contact surfaces must be properly designed, constructed, installed and located. All food contact surfaces (e.g., counters, tables, sinks, cutting boards, etc.) and non-food surfaces (floors, walls, shelving, back splashes, etc.) must be finished in a manner that is smooth, non-absorbent and easy to clean.
- A three compartment sink to wash, rinse and sanitize multi-service articles (cutlery, plates, bowls, cups and glasses) or a two compartment sink and a commercial mechanical dishwasher.
- At least one separate hand washing basin with the required supplies including hot and cold running water, liquid soap and paper towels in a dispenser. This hand basin must be accessible and separate from the two or three compartment dishwashing sink and must not be used for anything other than hand washing.
- Garbage should be disposed of frequently and in a manner consistent with municipal by-laws. Garbage receptacles should be equipped with a tight fitting lid when not in use, be maintained in a sanitary manner, cleaned and disinfected daily.
- Provision of proper waste water and sewage disposal in accordance with provincial and municipal laws. Contact your municipal building department for new day nurseries or for any existing centres undergoing renovations and remember to provide your public health inspector with a copy of your site plan for review.

Personal hygiene

- Food handlers play an important role in food safety. Good personal hygiene practices are key in preventing the cross contamination of food and preventing foodborne illness.

- Food handlers must wear clean outer garments and headgear that confines the hair any time they are handling or preparing food. If staff are only involved in the service of prepared food, they are not required to wear headgear.
- Food handlers experiencing any enteric symptoms (e.g., nausea or vomiting, diarrhea, stomach cramps or chills) must not work until they have been symptom free for 48 hours.
- Staff preparing food at the centre should not be diapering or assisting children with toileting.
- Good hand hygiene is important for preventing contamination of food. Gloves are not a substitute for hand washing. Gloves can provide a protective barrier against germs but offer little protection over and above good hand washing. Gloves are not recommended for food handlers unless there is a cut or open sores on the hands which need to be covered.

Food handlers and staff serving foods must carefully and thoroughly wash their hands:

- Before and after handling any foods or food contact utensils
- After going to the washroom
- After eating, drinking, or smoking and after breaks
- After coughing or sneezing into their hand or blowing their nose
- After wiping noses or cleaning up any blood, vomit or other body fluids
- After participating in outdoor activities
- After cleaning and sanitizing procedures
- After handling chemicals
- After handling raw hazardous food or an allergen and before handling ready to eat foods
- After handling garbage and cleaning products or equipment
- After handling classroom pets, pet food and their equipment or litter
- Any other time their hands may have become soiled

General food safety information

All food served to children at day nurseries must come from an inspected source. An “**inspected source**” is a food premise that is routinely inspected by Public Health (or other governmental food safety agency). Inspected food premises include a grocery store, bakery, caterer or a restaurant. Foods that are prepared in the homes of parents and staff should NOT be served to the children. The only exception is made when parents provide food such as a bagged lunch for their own child.

If parents and/or staff wish to provide food for special functions, such as a birthday party, the food must come from an inspected source and should be properly packaged with the name of the premise where it was made, the ingredient list and a best before date (if applicable) indicated on the package. The food must be transported using appropriate temperature control methods. A log book should be maintained, recording information such as:

- The type of food brought in

- Where the food was purchased
- Name of the person who brought the food
- The date the food was brought in and served

Birthday cakes can be baked at the center by a certified food handler or purchased from an approved grocery/bakery.

Refrigeration units must be kept at the required temperature of 4°C/40°F or less to limit the growth of bacteria that cause foodborne illness. Bacteria multiply very quickly when foods are stored in the danger zone - that is, temperatures between 4°C to 60°C (40°F to 140°F). Foods held at improper temperatures in the danger zone should be discarded.

Cold-holding

- Provide an accurate indicating thermometer in each refrigerated compartment (i.e., fridge and freezer) and monitor and record the temperature of these units at the beginning of each day (as a minimum) to ensure that they are operating properly.
- Keep hazardous foods such as meats, poultry, eggs, fish, cheese and other dairy products refrigerated at 4°C (40°F) or lower, until they are ready to be cooked or served.
- Maintain frozen food in a frozen state until prepared for use.
- Store frozen, thawing hazardous foods and raw meats, poultry, fish and eggs below cooked or ready-to-eat foods in the refrigerator.
- Thaw frozen meat, poultry and fish in the refrigerator, under cold running water or in the microwave and cook immediately thereafter. Never thaw hazardous foods such as meat, poultry or fish at room temperature.
- When refrigeration units require repair, remove all hazardous foods to an alternate cold storage unit in compliance with the Food Premises Regulation until the original unit can be verified (with an accurate thermometer) as being capable of holding foods at the required safe temperatures.
- Remember foods that were held at an improper temperature in the danger zone (between 4°C (40°F) to 60°C (140 °F)) need to be discarded. The danger zone is the temperature range in which bacteria multiply quickly.

Food preparation

- Minimize the time that any hazardous foods are left at room temperature during preparation. When preparing large amounts of food, prepare it in smaller “batches”, keeping the remainder cold in the refrigerator or freezer until needed.
- Prevent “cross-contamination” from raw foods (e.g., meat, poultry, eggs and fish) to cooked or ready-to-eat foods (e.g., deli meats, cheeses and other dairy products, salads or desserts) at all times during storage, preparation, cooking and service.
- Prepare raw foods separate from ready-to-eat foods. Use completely separate food contact surfaces (e.g., cutting boards, preparation tables, plates and other utensils), or prepare raw and cooked items at separate times.

- Ensure surfaces and equipment are thoroughly cleaned, rinsed and sanitized between uses – particularly after working with raw foods! Equipment and surfaces must be sanitized with a chlorine bleach solution, quaternary ammonium product or other product approved by Public Health. Child care providers should review the type of disinfectants in use with Public Health, to ensure compliance with the recommended concentration and contact times. Some food contact surfaces may need to be rinsed with water after using a disinfectant. Always read the label before using a new product.

Cooking

You can reduce your risk of food poisoning by thoroughly cooking your food. Provide food handlers with accurate probe thermometers and a supply of temperature log forms so that food handlers can monitor and record the final internal temperature of hazardous food items. If hazardous foods are being held hot prior to service, use a probe thermometer to ensure the food temperature is maintained at 60° C (140°F) or higher. Probe thermometers must be cleaned and sanitized between each use, and should be checked for accuracy at least weekly.

Here is a guide to the proper internal cooking temperatures of common foods:

Food Type	Celsius Temperature	Fahrenheit Temperature
Poultry (chicken and turkey) whole	82°C	180°F
Parts of poultry	74°C	165°F
Ground poultry	74°C	165°F
Pork including ground	71°C	160°F
Fish	70°C	158°F
Ground beef	71°C	160°F
Mixtures containing poultry, eggs, meat or fish	74°C	165°F
All other hazardous foods (e.g., rice and gravy)	70°C	158°F

Thermometer calibration

It is important to calibrate probe thermometers regularly to be sure that they are reading temperatures accurately. To easily calibrate a thermometer, use a glass of ice water. Place thermometer in the center of the ice water mixture for one minute, being careful

not to touch the container, and read the temperature. If the thermometer does not read 0°C (32°F), adjust the thermometer to reflect 0°C (32°F).

Microwave use

A microwave is a useful piece of equipment in child care settings because it heats foods very quickly. However, the microwave heats food unevenly and it can cause dangerous hot spots in foods. Therefore, always remember to:

- Stir liquids and rotate foods during the reheating process to allow the heat to be evenly distributed throughout the food.
- Cut all large foods into smaller pieces to increase surface area.
- Heat foods in containers and wraps that are labeled as microwave safe.
- Use the low to medium setting for short intervals.
- Ensure all foods are heated to the original cooking temperature by using a probe thermometer to verify temperature.
- Wipe up spills in the microwave immediately to prevent bacterial growth.
- Never use the microwave to warm bottled milk.
- **Microwaves should be used only for reheating previously cooked foods and should not be used for cooking meat from raw.**

Catered Food

If the child care centre receives catered food services (i.e., a caterer), make sure the caterer is inspected by Public Health. For food safety inspection results, see the Public Health disclosure website, [Check It. We Inspect It!](#)

- Transport potentially hazardous food in insulated containers. Only serve food that has been transported promptly in clean, covered containers.
- Food containers must be either disposable or made of a material that is non-absorbent and easily cleaned and sanitized, such as stainless steel.
- Use a food probe thermometer to check the internal temperatures of food as soon as the food arrives at the centre. Record the temperature on a food temperature log form.
- All hot foods must be at least 60°C (140°F) or higher and cold foods must be at least 4°C (40°F) or lower. The temperatures between 4°C (40°F) and 60°C (140°F), considered as the “Danger Zone”, must be avoided. Maintain food at required temperatures until time of service.

Food service

- Caregivers must wash their hands before and after serving the food and before assisting children with eating.
- Once prepared, keep cold foods cold at 4°C (40°F) or lower, and hot foods hot at 60°C (140°F) or higher, until served.
- Always use clean serving utensils to minimize the potential for contamination of foods served. Once food has been served to children or staff any leftovers should be discarded.
- Milk is a hazardous food item. The Ontario Food Premises Regulation requires **pasteurized** milk to be served from its original container (i.e., cartons or bags). If a separate covered container (that is clean and sanitized) is used to serve milk, any leftover milk from that re-usable container must be discarded after a single service. Be mindful that if a carton or bag of milk is used at multiple service times throughout the day, any remaining milk left over from the end of the second service should be discarded.

Family style meals:

Family style meals can be defined as meals in which the child care staff sits with the children to eat meals around a table that is set with food in appropriate serving containers, plates and utensils. The serving dishes with different food items are passed around the table and the children are encouraged to serve themselves or served with help from the staff. The children are allowed to put food on their own plates or pour beverages in their own cups. The child care staff can use mealtimes as an opportunity to teach the children food related topics such as the proper way to serve themselves; taking the right amounts of food; the importance of eating a variety of food and table manners. More importantly, mealtimes should be seen as another opportunity to teach and demonstrate food safety practices.

The general food safety guidelines for family style meals are outlined in the [Healthy and Safe Eating in the Child Care Setting factsheet](#).

Food safety during field trips/picnic

Field trips during the summertime when the weather is warm can be lots of fun. Outdoor activities are good for the appetite and children are often encouraged to take packed lunches or snacks with them. All foods served on field trips must be from an inspected source (which includes the kitchen of the child care centre). Parents may provide packed lunches and snacks for their own children. Keeping hot foods hot and cold foods cold on field trips is very important. The following tips will help to keep the children's food safe on field trips and prevent foodborne illness:

- Choose foods that will keep well, are unlikely to cause food poisoning and do not require refrigeration or heating. Some examples include: washed fresh fruits and vegetables, bread, crackers, bagels, applesauce and fruit cups. Pack ready-to-eat foods or foods that require limited preparation before eating.
- Pack frequently requested items such as drinks and snacks separately from the main course. Do not take food out of the cooler until you are ready to eat. This will help keep the main course items cold by avoiding frequent opening of the cooler.
- Remove coolers with food from your vehicle when you arrive at your destination. Never leave food that can spoil in the car. Keep the cooler in the shade and remove food just prior to serving. Serve food quickly.
- Protect food from flies and dust by keeping it covered or wrapped.
- Discard any leftover perishable foods (i.e., meat fish, poultry and eggs, salads containing mayonnaise) that have remained unprotected and unrefrigerated for more than one hour.

Cold foods:

- Keep all cold foods cold at an internal temperature of 4°C (40°F) or lower.
- Use ice packs in a cooler or an insulated container during transportation.
- Foods should be cold before packing into the cooler.

Hot foods:

- Keep all hot foods at an internal temperature of 60°C (140°F) or higher.
- Place hot foods into thermal insulated containers to keep hot.

Probe potentially hazardous foods with a sanitized thermometer as soon as the food reaches its destination

Remember: Staff and children will need to thoroughly wash hands before handling and eating food. If running water will not be available, bring a container or urn of water and

some liquid soap in a dispenser for hand washing and a supply of paper towels to dry hands. A supply of alcohol wipes or liquid hand sanitizer is also recommended.

A hand sanitizer is only effective when contamination of the hand is minimal. If hands are heavily contaminated, the alcohol (the bacterial killing ingredient in the gel) cannot kill all the bacteria.

Cleaning and sanitizing food contact surfaces, equipment and utensils

Steps for cleaning and sanitizing are:

- Clean the contaminated area, equipment or utensil by using hot soapy water and rinsing off the soap with clean water
- Finish off by sanitizing the clean area, equipment or utensil by using any one or three types of approved sanitizers (i.e., chlorine bleach, quaternary ammonium compound, iodine): **Do not combine bleach with soap into a solution; this will inactivate the sanitizing component.**

Dishwashing

Mechanical and manual dishwashing involves the same steps.

Use one of the following for dishwashing:

- A commercial mechanical dishwasher that meets the requirements of the Ontario Food Premises Regulation, or
- A three-compartment sink of such length, width and depth that allow complete immersion of utensils and equipment, or
- A two-compartment sink only if it is used for cleaning and sanitizing pots and pans and cooking/preparation dishes/utensils. If only a two compartment sink is available, items such as spoons, forks, plates, cups, must be single-use disposable.

Note: A domestic dishwasher is not acceptable for cleaning and sanitizing of multi-service utensils and equipment in the child care centre unless it meets either NSF/ANSI Standard 184 that results in the 5-log₁₀ bacterial load reduction when operated per manufacturer's instructions or NSF/ANSI Standard 3.

Components of mechanical dishwashing:

- **Pre-soak**/scrape off dishes.
- **Wash cycle.** Use clean water at all times that is kept at a temperature not lower than 60°C (140°F) or higher than 71°C (160°F)
- **Rinse cycle, in hot clean water.**
- **Sanitize cycle:**
 - A hot water rinse at a temperature of at least 82°C (180°F) for a minimum of 10 seconds, or
 - A chemical solution rinse for a minimum of forty-five seconds in each sanitizing cycle (i.e., chlorine/bleach (100 ppm); quaternary ammonium (200 ppm); iodine (25 ppm))
 - Air dry/drying cycle

Mechanical dishwashers must be equipped with thermometers that show wash and rinse temperatures and that are located for easy readability. Monitor the temperature gauges frequently to ensure the machine is functioning properly. Test strips are available for checking concentrations of chemical sanitizers and water temperatures.

- Use a temperature log to record and monitor the temperature of the rinse water in the mechanical dishwasher.

Steps for manual dishwashing in a three-compartment sink

- Pre-soak/scrape
- **Wash** in the first sink using a detergent solution and clean hot water. If the suds are gone or the water gets dirty, change it!
- **Rinse** in the second sink using clean hot water at 43°C (110°F). It is important to completely rinse off the detergent. If the detergent is not rinsed off, the sanitizer will not work properly.
- **Sanitize** in the third sink by using one of the following steps:
 - (a) Immersion in clean water at a temperature of at least 77°C (170°F), or more, for at least 45 seconds. Be aware water is very hot and may cause severe burns!
 - (b) Immersion in a clean chlorine solution of not less than [100 parts per million of available chlorine](#) at a temperature not lower than 24°C (75°F) for at least 45 seconds. For more information on how a bleach solution can be prepared as a disinfectant, please see [Public Health Ontario's Chlorine Dilution Calculator](#).
 - (c) Immersion in a clean quaternary ammonium compound solution of not less than 200 parts per million at a temperature not lower than 24°C (75°F) for at least 45 seconds.
 - (d) Immersion in a clean solution containing not less than 25 parts per million of available iodine at a temperature not lower than 24°C (75°F) for at least 45 seconds.
- Air dry.

Steps for manual dishwashing in a two-compartment sink

- **Pre-soak/scrape.**
- **Wash and rinse** in the first sink. Wash using a detergent solution and clean hot water. If the suds are gone or the water gets dirty, change it! Rinse under the tap allowing the rinse water to run into the wash water sink. If the detergent is not rinsed off, the sanitizer will not work properly.
- Sanitize in the second sink by using one of the following steps:
 - (a) Immersion in clean water at a temperature of at least 77°C (170°F), or more, for at least 45 seconds. Be aware water is very hot and may cause severe burns!

- (b) Immersion in a clean chlorine solution of not less than [100 parts per million of available chlorine](#) at a temperature not lower than 24°C (75°F) for at least 45 seconds; For more information on how a bleach solution can be prepared as a disinfectant, please see [Public Health Ontario's Chlorine Dilution Calculator](#).
- (c) Immersion in a clean quaternary ammonium compound solution of not less than 200 parts per million at a temperature not lower than 24°C (75°F) for at 45 seconds.
- (d) Immersion in a clean solution containing not less than 25 parts per million of available iodine at a temperature not lower than 24°C (75°F) for at least 45 seconds
- Air dry.

Sanitizing options for dishwashing:

Agent	Water	Concentration	Contact Time
Chlorine (bleach)	Not less than 24°C (75°C)	100 ppm	45 seconds
Quaternary ammonium	Not less than 24°C (75°C)	200 ppm	45 seconds
Iodine	Not less than 24°C (75°C)	25 ppm	45 seconds
Hot water, manual dishwashing	Not less than 77°C (170°C)	N/A	45 seconds
Mechanical dishwashing	Not less than 82°C (180°C)	N/A	45 seconds

Chlorine (bleach) sanitizing solution recipes:

When to Use	Concentration ppm = parts per million	Recipe t = teaspoon ml = millilitre L = litre
Manual dishwashing	100 ppm	Mix ½ t (2.5ml) of bleach into 4 cups (1 L) of water
Clean-in-place items (utensils/equipment too large to fit in the dishwashing sink)	200 ppm	Mix 1 t (5ml) of bleach into 4 cups (1 L) of water

Pest control

Pests such as cockroaches, flies, mice and rats can carry harmful organisms that can contaminate food. Pests can damage food, supplies and facilities. Pests can also spread diseases, including foodborne illness. It is the responsibility of the child care centre owner and supervisors to take precautions to prevent insects and rodents from entering the centre, maintain sanitary conditions to avoid attracting pests and to contact a licensed pest control operator to solve problems related to pests.

- Be on the lookout for pests. Good building maintenance, sanitation and housekeeping helps keep pests out of your centre.
- Check all supplies before they enter your building; pests can enter this way.
- Use tightly sealed and labeled food-safe containers to store foods in, including dry goods storage.
- Use the First-In First-Out (FIFO) rule for food storage.
- Clean food and drink spills promptly.
- Clean grease accumulations, including under equipment.
- Store garbage away from your building in leak-proof, water-proof, rodent-proof containers with tightly-fitted lids. Empty garbage as often as necessary to maintain a clean and sanitary condition.
- Make sure all floor drains have a cover.
- Make sure that the bottom of all doors close tightly.
- Keep screens and windows in good condition.
- Repair holes in walls and ceilings.
- Repair leaky water pipes and faucets; water attracts pests.
- Reduce clutter around the centre.

Pest problems are best dealt with by a professional licensed pest control operator. When choosing a pest control company, make sure the person doing the work is licensed under the Pest Control Products Act. Only licensed operators have the training to determine and apply appropriate pesticides and pest control measures in a safe manner.

Safe water

All child care centres must have a constant supply of potable water in order to operate safely when serving food, washing hands, drinking and during water play.

For more detailed information about safe drinking water in child care centres, see the [Ministry of Environment and Climate Change Safe Drinking Water Act, 2002/Ontario Regulation 243/07](#)

Municipal water

Child care centres served by municipal water supply systems have their water monitored, tested and treated on a constant basis in accordance with the [Ministry of Environment and Climate Change \(MOECC\) regulations](#).

Well water

A child care centre that has its own private water supply is classified as a Designated Facility and is required to conform to [Ontario Regulation 170 \(under the Safe Drinking Water Act\)](#). This regulation requires that all private water works operators put in place a system of water testing and treatment that will ensure a potable water supply. The regulation is enforced by the MOECC.

Lead

Flushing and sampling for lead

In accordance with Ontario Regulation 243/07 administered by the Ministry of Environment and Climate Change, schools, private schools and child care centres must periodically test their drinking water for lead content and report all adverse test results.

For detailed information about your flushing and sampling obligations, see the [Ministry of Environment and Climate Change website](#) or [Guide for schools, private schools and day nurseries on flushing and testing for lead](#).

Service disruption

Plan in advance for emergency situations such as a sewage back-up, power outages, no water or water interruption and fire. Report all service disruptions to Public Health for assessment.

Public Health will evaluate each service disruption to determine whether or not it poses a risk to your staff or the children in your centre, and to determine the appropriate response to the situation. This assessment will consider:

- Where: Is the service disruption indoors or outdoors?
- Who: What population is at risk?
- What: How extensive is the problem?
- Why: What is the source of the disruption? Has it been contained or is there an ongoing issue?
- How: Is there a possibility for adverse exposures to people with regular or full access to the property?

In order to reduce or prevent the spread of disease in humans, Public Health needs to monitor, investigate or advise members of the child care centres to take protective actions.

Sewage back-up

For indoor problems:

- Always keep affected area inaccessible to children at the centre to limit their exposure to the sewage hazard.
- The centre may be required to contact/hire a plumbing contractor/professional cleaner to ensure indoor sewage problems are corrected and/or to arrange clean up.
- Consultation with the Region of Waterloo Waste Management may be required for information about the proper disposal of ruined items and clean-up equipment after a sewage back-up.

For outdoor problems:

- Always keep affected area inaccessible to children at the centre to limit their exposure to the sewage hazard.
- Public health will notify The Ministry of Environment's Spills Action Centre of any outdoor sewage spills, if necessary.
- Water samples will need to be taken by centres serviced by well water to ensure the water supply is and remains free from contamination during and after the problem is addressed.

Site visits of child care centres may be conducted by Public Health to ensure ongoing clean-up. In some cases, the child care centre may be closed if continued operation would add to the sewage hazard or continue to put the children at risk during mitigation. Follow up visits to the centre may be necessary to ensure the hazard is fully resolved and, if necessary, to grant permission for a premise to re-open.

Power outage

The following guidelines will help to keep food safe when the power goes out:

Refrigerator:

- A refrigerator will keep foods cold for four to six hours if the refrigerator door is left closed.
- Record time the power outage began.
- Minimize opening the fridge.
- Check the temperature of the food with a probe thermometer when the power resumes.
- Throw out any hazardous food that is higher than 4° C (40°F) for more than two hours.
- Discard any food that has a strange colour or odour.

Freezer

- A freezer that is full can keep foods frozen for up to two days if the door remains closed.
- Keep freezer door closed.
- Check the temperature of the food with a probe thermometer when the power resumes. Place probe between two frozen foods to determine temperature.
- Consider relocating food to a location that will ensure a temperature of 4°C (40°F) or lower can be maintained, fully thawing food for consumption, refreeze food that is partially thawed (ice crystals present) or **dispose**.
- Cook food that has thawed to the required cooking temperature if it did not warm to higher than 4°C (40°F).
- Discard any food that has an off colour or odour.

When in doubt, throw it out!

For online information and tips about food, drinking water safety during a power outage, see:

- [Food Safety in an Emergency](#)
- [FIGHT BAC](#)

No water/water main break

In the event that water service has been disrupted, all food preparation and service must be discontinued until Public Health has been notified. An alternate source of potable water (water that is safe to drink) must be provided for drinking and hand washing until such time that water is restored and deemed safe for consumption.

Boil water orders/advisories

Boil Water or Drinking Water orders or advisories can be issued by the Medical Officer of Health or by a Public Health Inspector to a child care centre serviced by a private or municipal water supply. When an order or advisory is issued we will contact your facility. The inspector will provide you with advice and direction about precautions to implement and the actions required to remove the order or advisory.

All child care centres should have a response plan in place in the event that an order or advisory is issued. The plan should include measures to ensure a safe water supply is available to children and staff in the facility. Bottled water and/or an alternative potable municipal supply of water may be required for a period of time. In some circumstances, the centre may need to close until potable water is available. A public health inspector can provide assistance in reviewing your contingency plans.

Fire

It is important to understand that fire damage can jeopardize the safety of food. Food exposed to fire can be contaminated by toxic chemicals, and can be spoiled or be more prone to spoilage by bacteria. In the event of a fire, all food preparation and service must be discontinued until Public Health has been notified.

Aspects of fire situations that can make food unsafe:

- Toxic fumes released from burning materials are the most dangerous elements of a fire. Fumes and smoke released from the fire can contaminate food and drink, making it unsafe to eat and drink.
- Heat from fire may activate food spoilage bacteria in jars or cans of food, and can partially or fully cook fresh foods. This can make previously safe food unsafe to consume.
- Chemicals used to fight fire may contain toxins and can contaminate food, making it unsafe to eat. Chemicals cannot be washed off.
- Food that has been contaminated or spoiled may not look different. You cannot usually see chemicals or germs on your food.

Identifying and discarding potentially unsafe food will help to reduce the risk of foodborne illness. Foodborne illness results from eating food or drinking fluids that have been contaminated with bacteria, viruses or parasites, or consuming food that contains bacterial toxins or toxic chemicals. Discard all food that may have been exposed to fumes and smoke, heat and/or chemicals used to fight the fire. If you are in doubt about the safety of any food, throw it out.

After a fire you should discard:

- Food stored in permeable packaging such as cardboard, plastic wrap, screw-topped jars or bottles
- Food stored at room temperatures in cabinets and on shelves in areas where the food could have been contaminated. This includes potatoes and other fresh fruit, vegetables and dried fruit.
- Food stored in refrigerators or freezers that have become contaminated. The refrigerator seals may not be airtight and fumes from the fire can get inside.
- Food packaged in cans or jars that have been exposed to heat.

Cleaning after a fire:

- Discard and remove from the premises all damaged equipment, utensils, linens and single service items.
- Clean and sanitize all areas and non-permeable equipment affected by fire. This includes: utensils/silverware, cookware, dishware, food contact surfaces, food preparation equipment, floors, floor sinks, floor drains and furniture.

Use the following cleaning and sanitizing method to clean and disinfect:

- Brush or wipe away dirt, silt or chemicals
- Thoroughly wash with soap and water
- Rinse with clean water
- Sanitize

Factsheets and resources

1. [Healthy and Safe Eating in the Child Care Setting](#)
2. [Public Health Ontario's Chlorine Dilution Calculator](#)
3. [FIGHT BAC](#)