



Using Water Safely in Acute Health Care Sites During a Boil Water Advisory

What facilities does this document apply to?

This document applies to health care facilities such as active treatment centres, acute care units, health centres, and similar types of facilities.

If facility staff are reviewing modifications to procedures or changes to service delivery, it may be prudent to contact the Environmental Public Health office that issued the boil water advisory to gather more information and insight. In most scenarios where a boil water advisory is issued, the greatest risk will be to a user consuming the water.

What is a boil water advisory?

A boil water advisory is issued when harmful germs (e.g., *E.coli* bacteria, *Giardia* parasite) may be in a drinking water supply. Drinking water contaminated with these germs can make people and animals very sick. Boiling will kill the germs and make the water safe to drink after cooling.

What immediate steps must acute health care sites take when a boil water advisory is issued?

- Safe water must be provided to patients, staff and visitors for drinking purposes.
- Post signs at the entrances and all faucets, including, the kitchen area, kitchenettes, washrooms, and handwashing sinks as a reminder of the boil water advisory and not to drink the water.
- Provide an alcohol-based hand sanitizer that has at least 60% alcohol content in all public and staff washrooms, and at all stand-alone handwashing sinks. Post signs to advise staff, patients, residents, and visitors that hand sanitizer should be used after hands are properly washed and dried.
- Turn off or disconnect drinking fountains, drink dispensers, and ice machines from the affected water supply. Discard any ice and beverages that may have been prepared with the affected water supply.
- Critical medical equipment that is connected to the water system should be evaluated and taken off-line if necessary.
- If switching to bottled water, please note that commercially bottled water is not sterile. Clinicians should consider the supply needs for severely immunocompromised patients. In the event of a boil water advisory, there may be a requirement for different types and qualities of bottled water, including sterile water.

When a boil water advisory has been issued, how should the water be used?

When a boil water advisory has been issued, **do not** use the tap water to:

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| • drink | • prepare foods |
| • prepare baby formula | • wash fruits or vegetables |
| • make juice | • brush teeth |
| • make ice | • give to pets or animals in pet therapy programs |

During a boil water advisory use boiled water, bottled water or water from another safe public supply not affected by the advisory.

To make the water safe, **bring to a rapid rolling boil for at least one minute**. Boil only as much water in the pot that one can comfortably lift without spilling. Ensure water is cooled appropriately before using or before direct handling to prevent scalds.

What special precautions should people with a weakened immune system take?

Patients and residents with weakened immune systems and/or underlying health conditions may require special consideration. This should be discussed with the facility manager, personal physician and Infection, Prevention and Control staff.

Is bottled water or water from self-serve water dispensers safe to use?

Sometimes you can use bottled water, but it depends on when and how the water was bottled. Bottling plants and/or water dispensers that use local water must treat the water to remove harmful germs. Check with the Environmental Public Health Office (phone numbers below) about bottled water brands or water dispensers that have been treated so the water is safe. You can also use water bottled from another public water supply not affected by the advisory.

Is the water safe to drink if an on-site water filtration device is used?

If you have a water filtration device, **do not** use the water during a boil water advisory. Many filtration devices do not remove harmful germs. Check with the manufacturer to find out what the filtration device does remove.

Do water filtration devices make the tap water safe for use with medical devices?

No. Medical devices must use potable water, and during a boil water advisory the water is not potable. It is recommended to always follow the manufacturer's directions regarding the quality of water for use with medical devices.

GENERAL HYGIENE DURING A BOIL WATER ADVISORY

Can tap water be used for handwashing?

Yes. Wash hands using tap water and soap, making sure to lather and scrub all surfaces of the hand for a minimum of 20 seconds. Rinse hands well with running water, and dry with a paper towel. After washing hands with tap water, **use an alcohol-based hand sanitizer** containing more than 60% alcohol. Ensure that hand sanitizer is provided at each handwashing station, including washrooms.

Can tap water be used for showering or bathing?

Patients, residents, and staff may take showers or baths with untreated tap water, if they are careful not to swallow any tap water. The use of hand-held showerheads is recommended to assist with this concern. Open wounds, cuts, blisters or recent surgical wounds should be covered with a waterproof covering, and care must be taken not to contaminate these areas during bathing, showering or towel-bathing. Pre-boiled water, sterile water and water from a

safe alternate source can be considered instead of tap water if a bed-bath is required.

Neonates and patients with weakened immune systems should not be bathed with non-potable water and require special consideration. It is also recommended that sponge baths be given for infants and children who are at risk of swallowing the water.

Can tap water be used for brushing teeth?

No. During a boil water advisory, **do not** use tap water to brush teeth. Use boiled water that is cooled, bottled water or water from another safe source.

Can tap water be used for washing laundry?

Yes. During a boil water advisory, continue washing laundry like normal. Ensure that a mechanical dryer (hot drying method) is used to completely dry the material.

Can tap water be used for general cleaning purposes?

Yes. Tap water can be used for general cleaning of surfaces and to prepare sanitizing solutions. Cleaned high touch surfaces should be sanitized with one of the approved sanitizers listed below, and allowed to air dry. Sanitizer concentration should be tested regularly with sanitizer test papers or other testing equipment, unless the sanitizer is premixed by the manufacturer and marked with an expiry date.

Approved Sanitizers:

- Chlorine solution: 100 ppm chlorine (1/2 teaspoon household bleach per litre of water).
- Quaternary Ammonia Solution: Generally 200 ppm. Follow manufacturer's instructions for correct dilution and contact time. The product must have a DIN issued by Health Canada.
- Iodine Solution: 12.5-25 ppm iodine. Follow manufacturer's directions.
- Accelerated Hydrogen Peroxide: 0.5% AHP. Follow manufacturer's instructions for correct dilution and contact time. The product must have a DIN issued by Health Canada.

PREPARING FOOD DURING A BOIL WATER ADVISORY

Can commercial coffee brewers and hot tea towers be used during a boil water advisory?

Yes. Ensure the coffee maker and hot tea towers produce water at **70°C/160°F**. This temperature is sufficient to inactivate disease-causing microorganisms. It is recommended that the coffee pot be held for at least **five minutes** on the burner before consumption. The temperature should be verified using a probe thermometer.

Can tap water be used to wash dishes by hand?

Yes. Wash and rinse dishes with hot tap water, and then sanitize the dishes to reduce the amount of germs to a safe level. Soak the dishes for at least two minutes in a bleach solution of 1 tablespoon of household bleach in 4 litres (20 cups) of warm water. Let the dishes air-dry completely.

Can domestic dishwashers be used?

A domestic dishwasher can be used if it works well and has a hot temperature setting or sanitizer cycle. Let the dishes dry completely, preferably using a heated dry cycle on the dishwasher. If the dishwasher does not have a hot temperature setting, it is recommended that dishes be sanitized using method outlined in the hand dishwashing question above.

How should counter tops, cutting boards or other kitchen surfaces be sanitized?

Tap water can be used for cleaning of kitchen surfaces and equipment, and to prepare sanitizing solutions. Cleaned surfaces and equipment should be sanitized with one of the approved sanitizers listed in the general cleaning question. If using a sanitizer other than bleach, follow manufacturer's instructions if rinsing is required prior to food contact.

Is there further information on safe food preparation for a public food establishment?

Follow the procedures listed in the document, "Using Water Safely in Food Establishments During a Boil Water Advisory". This document is available by contacting the local Environmental Health Officer.

PROCEDURES TO TAKE AFTER A BOIL WATER ADVISORY IS ENDED

- Flush all water-using fixtures by running the tap for five minutes. If the service connection is long or complex, consider flushing for a longer period of time.
- Ensure equipment with water line connections, such as medical equipment, refrigerator water and ice dispensers are drained, flushed, cleaned and disinfected according to the manufacturer's recommendations.
- Flush, drain, clean and disinfect cisterns that contained the affected water source.
- Replace the filters on any water filtration devices, and flush the fixture according to the manufacturer's directions.
- Drain and refill hot water heaters that have been set below 45°C/110°F.

For more information about using water during a boil water advisory, contact the local Environmental Health Officer.

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