

# How to Use Water Safely in Community-based Health Care Settings (CHCS) During a Boil Water Advisory

## *What facilities does this document apply to?*

This document applies to Community-based Health Care Settings (CHCS) such as medical clinics, dental clinics, podiatry clinics, 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. 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 a notification that the drinking water supply may be contaminated with pathogenic microorganisms (e.g., *E. coli* bacteria, *Giardia* parasite, etc.), and that drinking or using the tap water can make patients, residents, clients, staff and visitors sick. The contamination has changed the water from potable (safe for human consumption) to non-potable (unsafe for human consumption). Boiling the tap water destroys pathogens and makes the water safe to drink and use.

## *What immediate steps must be implemented when a boil water advisory is issued?*

- All alternate sources of water provided to patients, staff and visitors must be safe for human consumption (drinking, cooking, washing vegetables, brushing teeth, etc.).
- Signs must be posted at the entrance to the facility and at all faucets, including the staff kitchen area, washrooms and hand washing sinks, as a reminder that a boil water advisory is in effect and that the water is not safe to drink. See attached signs.
- Provide alcohol based hand rub (ABHR) in all public and staff washrooms and at all other hand hygiene sinks. Post signs advising patients, staff and visitors to use ABHR following hand washing (using soap water and paper towels) at hand hygiene sinks

- The Public Health Agency of Canada (PHAC) recommends use of ABHR with an alcohol concentration of 60% to 90% and a Natural Product Number (NPN) or a Drug Identification Number (DIN) from Health Canada.
- Disconnect all drinking water fountains and ice making machines from the affected water supply.
- Discard any ice and beverages that may have been prepared with the affected water supply.
- Each Community-based Health care Setting should evaluate how the boil water advisory will impact their operation.
- Water should not be delivered to patients through medical equipment with water line connections to the public water system (e.g. dental units, ultrasonic scalers). Turn off the water supply to such equipment. This restriction does not apply if the water source is isolated from the municipal water system (e.g., a separate water reservoir or other water treatment device cleared for marketing by the Food and Drug Administration).

Note: If help is needed to review risks related to specific equipment or water systems contact Environmental Public Health for additional advice.

### *What is the correct way to boil water?*

Boiling the tap water will destroy any pathogens that might be present, and it will make the water safe to drink and use. To correctly boil water, bring it to a rolling boil for at least one minute and then allow the water to cool before use. Use an electric kettle if possible. Only boil as much water as you can safely lift without spilling. Be careful not to burn yourself or others.

### *What special precautions should patients with weakened immune system take?*

Patients with weakened immune systems and/or underlying health conditions may require special consideration, based on their condition and physician's advice.

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

In most instances, bottled water is safe to use, but it depends on when and how the water was bottled. Bottling plants and water dispensers that operate in the municipality affected by the boil water advisory must treat the water to ensure that harmful microorganisms are removed. Check with the Environmental Public Health Office about providers of bottled water or water dispensers that are considered to be safe. Bottled

water produced in locations that are not affected by the boil water advisory is considered to be safe.

***Do water filtration devices make the tap water safe to drink or use?***

No. Many water filtration devices may not remove all pathogens. If the water passes through a water filtration device in your facility, do not use this water unless it has been boiled first. Check with the water filter manufacturer to determine the effectiveness of the filters in place.

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

No. Generally, medical device manufacturer's instructions assume water used with their devices is potable and during a boil water advisory the water is not potable. Always follow the manufacturer's instructions regarding the quality of water to be used with their medical device.

## **PERSONAL HYGIENE DURING A BOIL WATER ADVISORY**

***Can tap water be used to perform hand hygiene?***

In community-based health care settings, ABHR is sufficient for hand hygiene when hands are not visibly soiled. When hands are visibly soiled, hand hygiene using soap and water is required. During a boil water advisory, tap water can be used for hand washing and then apply ABHR.

***Can tap water generally be used for showering or bathing?***

Yes. Patients and staff may take showers or baths with tap water, but they must be careful to avoid the face, and swallowing any water. The use of hand-held showerheads is recommended. 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.

## **CLEANING AND DISINFECTION PRACTICES**

***Can tap water be used for cleaning and disinfecting surfaces?***

Tap water should **not** be used to prepare (mix or dilute) disinfectant solutions. Cleaning and disinfection of clinical contact surfaces, high-touch surfaces (door knobs, handles, railings, vanities, etc.) and non-critical medical devices should be carried out using a ready-to-use (RTU) surface disinfectant product with a Drug Identification Number (DIN) from Health Canada. If such products are not readily available, disinfectant solutions

can be prepared using safe alternative sources of water such as bottled water, pre-boiled water, etc.

Within a facility or clinic setting, environmental surfaces such as walls, floors, ceilings, and horizontal surfaces require cleaning with the environmental services product using the quality of water as recommended by the product manufacturer. If the product needs to be mixed with potable water, consultation with the product manufacturer, Environmental Public Health, Infection Control Professionals, and Environmental Services must be undertaken to maintain sustainability of using potable water. If the product manufacturer approves the use of existing tap water then there would be no changes to the selection of water source.

If using automated dispensing systems, these systems may require subsequent cleaning, rinsing and disinfection following the lifting of the Boil Water Advisory. Please follow the dispenser manufacturer's instructions for use.

#### ***Can tap water be used for washing laundry?***

Yes. During a boil water advisory, tap water may still be used for general laundry procedures. Laundry should be dried in a mechanical drying machine on a normal setting or hotter.

#### ***Can reusable medical devices be cleaned using tap water during a boil water advisory?***

No. Manual washing and rinsing of reusable semi-critical and critical medical devices should be conducted using only potable water or water of a quality specified by the device manufacturer's instructions. During a boil water advisory, a safe alternative source of water must be used.

#### ***Can automated reprocessing equipment be used during a boil water advisory?***

Review equipment manufacturer's instructions for use and ensure appropriate reprocessing procedures using automated reprocessing equipment such as washer disinfectors, endoscope reprocessors, chemical sterilizers and steam sterilizers are implemented. Instruments should be cleaned using water that meets the manufacturer's requirement for cleaning (e.g. potable water, filtered water, or reverse osmosis water).

## **PREPARING FOOD DURING A BOIL WATER ADVISORY**

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

Yes. Ensure the coffee maker and hot tea towers produce water at a minimum temperature of 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.

Pod-style coffee makers (e.g., Keurig) are difficult to monitor for temperature, therefore it is advised to use bottled water or previously boiled water in these machines.

### ***Can tap water be used to wash dishes by hand?***

Yes. Tap water can be used to wash and rinse dishes provided that the water is hot. After the dishes are washed and rinsed, dishes must be sanitized to destroy the pathogens. To do this, soak your dishes for at least two minutes in a chlorine bleach solution. To make a 100 mg/L chlorine bleach solution, mix 10 mL (2 tsp) of liquid, unscented bleach (5.25% sodium hypochlorite) in 5 litres (20 cups) of warm water. Let the dishes air-dry completely.

### ***Can domestic style dishwashers be used in the facility?***

Yes, provided that the domestic style dishwasher has a hot temperature setting or sanitizer cycle. If the dishwasher does not have a hot temperature/sanitizer setting, the user should consider not using the dishwasher until the boil water advisory is over. If it is necessary to use the dishwasher, it is recommended to stop the dishwasher at the start of the rinse cycle, add 20 mL (4 tsp) of liquid household chlorine bleach containing 5.25% sodium hypochlorite, and then re-start the dishwasher. Let the dishes dry completely, preferably using a heated dry cycle on the dishwasher.

### ***Can tap water be used for cleaning and sanitizing counter tops, cutting boards and other kitchen surfaces?***

Yes, tap water may be used to prepare sanitizing solutions. Wash kitchen surfaces with a hot soapy solution, then rinse and sanitize with a bleach solution. Make a new bleach solution every day (this is because bleach breaks down quickly once it is mixed with water), so it works well to destroy pathogens.

To prepare the sanitizer solution (sanitizer strength of 200 mg/L chlorine solution), add 5 mL (1 tsp) of liquid household bleach (5.25% sodium hypochlorite) to 1 litre (4 cups) of tap water. Apply this solution onto the food contact surfaces and let sit for a minimum of two minutes.

Vinegar is not an acceptable disinfectant.

## **PROCEDURES TO TAKE AFTER A BOIL WATER ADVISORY HAS ENDED**

- Flush all water-using fixtures, equipment and faucets by running them for five minutes. If your service connection is long or complex, consider flushing for a longer period of time.
- A suggested method for flushing multi-storey buildings is as follows: start on the top floor flushing each fixture and faucet for five minutes. The fixtures may be flushed simultaneously. Proceed to the next floor, and continue the procedure until all fixtures and faucets on all floors are flushed.
- 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.
- Affected reverse osmosis systems should to be serviced according to the manufacturer's recommendations.
- Flush, drain, clean and disinfect cisterns that contained the affected water source.
- Run water softeners through a regeneration cycle according to the manufacturer's recommendations.
- Replace the filters on any water filtration devices, and flush the fixture according to the manufacturer's recommendations.
- Drain and refill hot water heaters that have been set below 45°C/110°F.

***For more information, call your local public health inspector.***

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Calgary Main Office  
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403-943-2288  
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# CAUTION !



**Boil Water Advisory in effect.  
This water is not safe for drinking.**

**Contact Environmental Public Health for more information.**

*Edmonton and Area Ph: 780-735-1800*

*Calgary and Area Ph: 1-855-943-2288*

*Southern Alberta Ph: 403-388-6689*

*Northern Alberta Ph: 780-513-7517*

*Central Alberta Ph: 1-877-360-6366*

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Boil Water Advisory in effect.

# WASH YOUR HANDS

Apply hand sanitizer after handwashing.

