

Health Protection
Office of the Chief Medical Health Officer
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What to Do During a Boil Water Notice

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What is a Boil Water Notice?

Boil water notices are public announcements advising the public that they should boil tap water before drinking or using it to prepare food. Notices are issued when tap water may be contaminated with disease-causing organisms.

The following general precautions should be followed when there is a boil water notice in effect. Please note that precautions may vary depending on the circumstances of the notice.

Boiled water is required for:

Drinking purposes

This includes all beverage concentrates or powders where water is added, such as fruit juices, iced tea, and instant coffee.

Food preparation

This includes washing fruits and vegetables that will not be cooked.

Note: Water used as an ingredient does not need to be boiled prior to use providing it will be brought to a boil during the cooking process.

Brushing teeth

This includes daily oral hygiene including cleaning dentures.

Infant formulas

Formulas should always be prepared by using boiled tap water or bottled water.

Making ice

This includes water from any appliance connected to your water line, such as ice and water from a refrigerator. It is important to note that freezing does not destroy most pathogens. Bacteria and viruses can survive in frozen products for long periods of time. Discard any ice made from contaminated or potentially contaminated water and only use ice from a source not affected by the boil water notice.

Fruit and vegetable washing

Boiled water should be used to wash all produce that is to be eaten raw.

Beer and wine making

To be safe, postpone beer and wine making until the boil water notice has been rescinded or use water from a source not affected by the boil water notice.

Water for pets

Some veterinarians recommend that drinking water for pets including dogs, cats, birds and reptiles be boiled. Information on water quality for livestock can be accessed at the BC Ministry of Environment water quality objectives website.

Immune-compromised individuals

People who are immune-compromised should always practice extra caution including boiling any tap water for consumption.

The following uses do not require boiled water but require additional cleaners or sanitizers:

Cleaning food contact surfaces

Food contact surfaces are all those surfaces that food comes into contact with during the food preparation process. These include countertops, cutting boards and chopping blocks. Food contact surfaces should be washed with clean, hot water and then sanitized using an acceptable sanitizing agent. Sanitizing agents for food contact surfaces include regular unscented household bleach (5.25%), iodophors, and quaternary ammonia compounds (QUATS). More information regarding sanitizers can be found in the Canadian Food Retail and Food Services Code.

To prepare stock bleach solution, add 5 mL (or 1 tsp) of 5.25% bleach per liter of water. This will make a 100 ppm chlorine solution.

Hand washing

Use of warm water and soap should be sufficient.

Dishwashing by hand

Use warm water (approximately 45°C) to wash and rinse dishes. Next, make a bleach/water solution in a separate sink by adding 5 mL (or 1 tsp) of bleach per liter of water and immerse dishes for 30 seconds. Dishes should then be left to air dry prior to being used. Attempting to wash and sanitize dishes in the same sink at the same time is not recommended because soap, grease and food particles interfere with the sanitizing process.

Mechanical dishwashers

Residential dishwashers may not provide a high enough temperature to destroy all pathogens. Dishwashing units that reach 82 degrees Celsius (180 degrees Fahrenheit) for twelve seconds (or an equivalent time-temperature relationship) during the final rinse cycle will destroy pathogens. Consult your dishwasher owner's manual to verify these specifications.

To optimize dishwasher disinfection you should consider:

- Using the highest temperature setting possible. This is often a "sani" cycle on most residential dishwashers; and
- Allow the dishwasher to complete its full cycle.



Simply put, any water that has a chance of being ingested should be boiled. Tap water can be used for bathing and showering, as long as precautions are taken so that no water is accidentally ingested.

How to boil tap water?

Tap water should be rolling boiled for **one minute**. Use any clean pot or kettle. Kettles that have automatic shut offs are acceptable.

After boiling, let the water cool by leaving it on the counter or in the refrigerator in covered containers. After water is boiled it can be stored in food grade containers at room temperature or in the refrigerator.

Boiled water tends to have a flat taste. You can bring back flavour by shaking water in a container, pouring the water between two containers, and/or adding a pinch of salt.

When will the Boil Water Notice be lifted?

The Boil Water Notice will be lifted once the water sample results indicates it is safe to drink.

After a Boil Water Notice has been lifted:

- Flush all water-using fixtures for 1 minute.
- Run cold-water faucets and drinking fountains for 3 minutes before using the water.
- Drain and flush all ice-making machines in your refrigerator.
- Run water softeners through a regeneration cycle.
- Drain and refill hot water tanks if set below 45°C.
- Change any pre-treatment filters (under sink style and refrigerator water filters, carbon block, activated carbon, sediment filters, etc.)

Alternatives to Boiling Water

Although there are alternatives, not all of them will be feasible or practical in all situations. In part, it will depend on how much water you need and what you need it for. Safe alternatives to boiling water include:

- Using commercially prepared bottled water
- Obtaining water from an approved source that is not on a boil water notice
- If the water is clear and boiling water is not practical, you can use the following as a guide to using bleach to disinfect your water.

Gallons of water to disinfect (equivalent shown in brackets)	Amount of household bleach (5%) to add
1 gal (4.5 litres)	2 drops (0.18 <i>ml</i>)
2 1/5 gal (10 litres)	5 drops (0.4 ml)
5 gal. (23 litres)	11 drops (0.9 ml)
10 gal. (45 litres)	22 drops (1.8 <i>ml</i>)
22 gal. (100 litres)	3/4 teaspoon (4 <i>ml</i>)
45 gal. (205 litres)	1 1/2 teaspoons (8 <i>ml</i>)
50 gal. (230 litres)	1 3/4 teaspoons (9 <i>ml</i>)
100 gal. (450 litres)	3 1/2 teaspoons (18 ml)
220 gal. (1000 litres)	8 teaspoons (40 <i>ml</i>)
500 gal. (2200 litres)	6 tablespoons (90 ml)
1000 gal. (4550 litres)	6 1/2 ounces or 12 tablespoons (180 ml)

Important notes: Using bleach (chlorine) to disinfect water is not recommended for public notifications that are a result of high turbidity. Turbid water reduces the effects of bleach as a disinfectant. In addition, there may be pathogens present in turbid water that are not affected by bleach.

Disinfection using regular unscented household bleach (5.25% chlorine) works best with warm water. Add bleach to the water, shake or stir for thorough mixing and then let it stand for at least 30 minutes before drinking.

We recommend measuring the accurate amount of bleach before adding to the water. After waiting the 30-minute waiting period, a slight chlorine odor may still be noticeable if you have added enough bleach. If you believe the water has too strong of a chlorine taste, allow it to stand exposed to the air for a few hours or pour it from one clean container to another several times until the odour lessens.

NOTE: The disinfection process requires the bleach to be in contact with the water for at least 30 minutes. However, **bleach does not work well in killing off** *Cryptosporidium*. The amount of bleach needed to kill *Cryptosporidium* makes the water almost impossible to drink. If *Cryptosporidium* is in the water, boiling is the best way to make sure the water is safe to drink.

For a list of current Boil Water Notices in Vancouver Coastal Health Authority, please visit our webpage.

If you have any further questions regarding a Boil Water Notice in your area, please contact your local Health Unit or Drinking Water Officer for more information.

Service Area	Phone
Central Coast & West Chilcotin	604-983-6793
North Shore	604-983-6793
Powell River	604-485-3310
Richmond	604-233-3147
Squamish	604-892-2293
Sunshine Coast	604-885-5164
Vancouver	604-675-3800
Whistler	604-932-3202

