Health Protection
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PUBLIC BEACHES – FREQUENTLY ASKED QUESTIONS

May, 2023

WHY DOES BEACH WATER REQUIRE TESTING?

Beach water can be influenced by different environmental factors, such as current, wildlife populations, weather conditions etc. Water in selected beaches requires regular testing to ensure it is at a safe level for public use, to reduce the risk of potential infections.

WHAT STANDARDS ARE USED TO DETERMINE IF BEACHES CAN STAY OPEN?

The presence of *E. coli* is used as a fecal indicator to determine if beaches can stay open. *E. coli* is a bacterium commonly found in the intestinal tract of animals and humans. It is an effective indicator to determine beach water quality and meets the recommendations outlined in Health Canada's *Guidelines for Canadian Recreational Water Quality – Indicators of Fecal Contamination 2023 (GCRWQ 2023).*

DOES GCRWQ 2023 IMPACT THE BEACH WATER QUALITY MONITORING PROGRAM?

VCH has updated its beach water quality monitoring program to reflect the changes in the updated GCRWQ 2023. The key change is when beach operators are asked to investigate and resample the beach site. If a single sample exceeds 235 *E.coli*/100 mL (as opposed to 400 *E.coli*/100 mL prior to 2023), an investigation will be triggered. Therefore, it is anticipated that more flags will be posted.

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WHAT DOES "WATER QUALITY INVESTIGATION IN PROGRESS" MEAN?

When a single sample of 235 *E.coli*/100 mL occurs, it does not imply the beach site poses a health risk to the public. The beach operator will initiate an investigation and re-sampling of the site. The investigation may include a discussion with VCH to determine if any environmental factors may have influenced the sample such as reports relating to sewage or other waste spills, algal blooms, fish or shellfish die off, wildlife activity, and significant rainfall events. The investigation may also include a review of health surveillance data.

WHICH BEACHES ARE TESTED REGULARLY AND WHO DOES THE SAMPLING AND TESTING?

Beach owners and operators decide which beach sites are regularly tested. They are also responsible for collecting their own water samples but may make arrangements for others to do so. For example in the lower mainland, Metro Vancouver performs the sampling for the majority of beach operators. Samples are sent to an approved laboratory for analysis. VCH reviews the results and then posts on this website.

WHY IS A BEACH MISSING FROM THE MAP?

Beaches that are not routinely sampled are not shown on the map.

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HOW OFTEN IS WATER QUALITY TESTED AT BEACHES?

Beach owners/operators should routinely test beach water quality during the swimming season from April to September. While most beaches are tested each week, remote beaches may not always meet this recommended frequency.

WHAT DOES THE LAB LOOK FOR IN THE BEACH WATER?

Beach water is tested for the presence of *E. coli*, a bacterium (used as an indicator species) commonly found in the intestinal tract of animals and humans.

WHAT IS THE SOURCE OF THE *E.COLI* CONTAMINATION?

There are many possible sources of *E.coli* contamination.

- Heavy rain and surface runoff with contamination from recreational vehicles and animal waste
- Sewer overflows
- Leaking septic tanks and discharge from boats

People are advised to avoid swimming at the beach for at least 48 hours after heavy rainfall.

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WHAT LEVEL OF *E.COLI* IS TOO HIGH AND WHAT DOES IT MEAN?

In most cases, repeat single sample results exceeding 400 *E.coli*/100 mL or a geometric mean of 200 *E.coli*/100 mL will lead to a swimming advisory. Beach operators will be required to post a notice at the beach, "No Swimming". High counts of *E. coli* in recreational water may increase the chances of gastrointestinal illnesses and skin/eye infection.

WHAT DOES IT MEAN WHEN A "NO SWIMMING" ADVISORY IS POSTED AT A BEACH?

When the level of bacteria is high there is an increased risk of illness to swimmers. The public is advised not to swim or wade in the water until the advisory is removed. Seniors, infants and children, and people with weakened immunity are the most susceptible.

WILL I GET SICK IF I GO INTO WATER THAT IS UNDER ADVISORY?

There is no way to say for sure whether you will get sick if you go into water that is under advisory, but you will have a higher chance of getting sick. The risk of getting sick is higher if you engage in primary contact recreational activities, such as swimming, paddle boarding and surfing, as your whole body is immersed. You will have a higher chance to swallow water or get water in the nose, eyes, ears, or an open wound. Examples of possible illness include stomach upset, ear infection, sore throat, or wound infection.

If you engage in secondary contact recreational activities, such as canoeing, kayaking, sailing and fishing, only regular wetting of limbs is involved and swallowing of water is not usual. The risk of getting sick will be lower.

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WHEN DOES AN ADVISORY END?

When test results show that the beach water quality has returned to an acceptable level, the advisory will be removed. Beach operators will be notified the beach is suitable for swimming and signage will be removed. The website will be updated.

WHAT ARE REFERENCE SITES?

These are sites where water quality is monitored, but the water is not suitable for swimming because of poor water quality, tidal action, marine traffic or a hazardous underwater environment. Since the water may be used for secondary contact recreational activities, the data is provided to the public for information purposes only.

WHEN WOULD A BEACH BE CLOSED?

A closure is different from a “No Swimming” advisory. A beach will be closed if there is an immediate health and safety risk to the users. No one should swim at a beach that has been closed.

Events that could lead to the closure of beaches:

- Chemical, oil, sewage or other waste spills
- Waste water treatment plant bypasses
- Red tides or blue green algae blooms
- Fish or other wildlife die-off at the beach
- Visible debris, metal, or sharp objects found in the water or beach area

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WHY DO SOME BEACHES NOT HAVE A GEOMETRIC MEAN?

The number of samples collected by the beach operator is not sufficient to calculate a geometric mean. The beach remains open based on the available sample results.

HOW CAN I PROTECT MYSELF WHEN SWIMMING AT THE BEACH?

- Avoid swallowing water
- Avoid swimming with an open cut or wound
- Avoid swimming for 48-hours after a significant rainfall
- Avoid swimming in murky/turbid water
- Stay away from the water if you are experiencing digestive or intestinal problems
- After swimming, wash your hands before handling food

WHAT SHOULD I DO AFTER SWIMMING IN BEACH WATER?

- Rinse off well using soap and clean water, paying special attention to any cuts or scrapes. Dry out your ears.
- If you believe you have been exposed to contaminated water, take a shower and wash swimsuits, towels and other clothing that might have been contaminated as soon as possible.
- If you start to feel sick, seek medical attention. Tell your doctor you may have been exposed to contaminated water, and contact your local health authority to report your illness.