

Cleaning, Decontamination, and Safe Water Management of Aquatic Facilities

COVID-19 Information Bulletin – April 29, 2020

Information

Coronaviruses are a large family of viruses. Some cause illness in people and others cause illness in animals. Human coronaviruses are common and are typically associated with mild illnesses, like the common cold. COVID-19 is a new disease that has not been previously identified in humans. Rarely, animal coronaviruses can infect people, and more rarely, these can then spread from person to person through close contact.

Surfaces frequently touched with hands are most likely to be contaminated. These include doorknobs, handrails, elevator buttons, light switches, cabinet handles, faucet handles, tables, countertops, and electronics.

The virus responsible for COVID-19 can survive for a certain time (a few hours to several days) on different surfaces but is easily eliminated by most regular cleaners and disinfectants.

It is important to ensure that the product has sufficient contact time with the surface to be disinfected. This contact time is usually specified by the product manufacturer (Public Health Ontario, 2020)

Background/Rationale

COVID-19 is a serious health threat, and the situation is evolving daily. The risk will vary between and within communities, but given the increasing number of cases in Canada, the risk to Canadians is considered high. This does not mean that all Canadians will get the disease, it means that there is already a significant impact on our health care system.

We will continue to reassess the public health risk based on the best available evidence as the situation evolves.

Implementation

The Government of Canada and the United States Centre for Disease Control have created several online resources that will guide

owner/operators in the cleaning and disinfection of aquatic facilities. Owner/operators should check these sites for the most current recommendations regarding cleaning and disinfecting of recreation facilities. The guidance provided in these resources on the cleaning and disinfection of public areas is aimed at limiting the survival of COVID 19 disease. These recommendations will be updated if additional information becomes available.

These guidelines focus on community, non-healthcare facilities such as schools, institutions of higher education, recreation centres, offices, daycare centers, businesses, and community centers that do not house persons overnight.

Cleaning and disinfecting and personal protection

The first step in addressing this disease is the personal protection of staff responsible for the cleaning of aquatic facilities. These individuals must be provided with adequate Personal Protective Equipment (PPE). In addition, they must practice personal hand hygiene.

The risk of exposure to cleaning staff is inherently low. Even though the risk is low, cleaning staff should wear disposable gloves and gowns for all tasks in the cleaning process, including handling trash.

Employers should develop policies for worker protection and provide training to all cleaning staff on site prior to providing cleaning tasks. Training should include when to use PPE, what PPE is necessary, how to properly don (put on), use, and doff (take off) PPE, and how to properly dispose of PPE.

In addition: Gloves and gowns should be compatible with the disinfectant products being used.

Additional PPE such as masks, goggles or face shields may be required based on the cleaning/disinfectant products being used and whether there is a risk of splash.

Gloves and gowns should be removed carefully to avoid contamination of the wearer and the surrounding area. Be sure to wash hands after removing gloves.

If gowns are not available, coveralls, aprons or work uniforms can be worn during cleaning and disinfecting. Reusable (washable) clothing should be laundered after each use. Hands should be washed after handling dirty laundry. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains at least 60% alcohol may be used.

Follow normal preventive actions and avoiding touching eyes, nose, or mouth with unwashed hands.

Additional key times to clean hands include:

- After blowing one's nose, coughing, or sneezing.
- After using the restroom.
- Before eating or preparing food.
- After contact with animals or pets.
- Before and after providing routine care for another person who needs assistance such as a child.

The use of a spray should be avoided if possible, in order to limit the formation of aerosol of disinfectant product which can be inhaled and thus irritate the respiratory tract. If such a spray bottle is used, adjust it so that you have a large spray.

Where to clean

Surfaces frequently touched with hands are most likely to be contaminated. These include doorknobs, handrails, elevator buttons, light switches, cabinet handles, faucet handles, tables, countertops and electronics. These areas are therefore high priority cleaning areas within the facility. It is not yet known how long the virus causing COVID-19 lives on surfaces, however, early evidence suggests it can live on objects and surfaces from a few hours to days.

A detailed cleaning schedule should be created which would include where, what and frequency of cleaning. Log sheets should be posted and completed each time cleaning occurs.

What to clean with

When cleaning public spaces, choose products that clean and disinfect all at once (e.g. premixed store-bought disinfectant cleaning solutions and/or wipes when available). Cleaning products remove germs, dirt, and impurities from surfaces by using soap (or detergent) and water. Cleaning does not necessarily kill germs, but by removing them, it lowers their numbers and the risk of spreading infection. Disinfecting products kill germs on surfaces using chemicals.

Use only approved hard-surface cleaner disinfectants that have a Drug Identification Number (DIN). Drug Identification Number (DIN) is a computer-generated eight-digit number assigned by Health Canada to a drug product prior to being marketed in Canada. It uniquely identifies all drug products sold in a dosage form in Canada and is located on the label

of prescription and over-the-counter drug products that have been evaluated and authorized for sale in Canada. Employers must ensure workers are trained on the hazards of the cleaning chemicals used in the workplace

A DIN uniquely identifies the following product characteristics: manufacturer; product name; active ingredient(s); strength(s) of active ingredient(s); pharmaceutical form; route of administration.

Create a cleaning procedure

Operators of aquatic facilities should develop or review protocols and procedures for cleaning their facility. This will help determine where improvements or additional cleaning may be needed. Manufacturer's instructions for safe use of cleaning and disinfection products (e.g. wear gloves, use in well-ventilated area, allow enough contact time for disinfectant to kill germs based on the product being used) should be reviewed and appropriate products should be selected for use by staff. Employers should work with their local health units to ensure appropriate local protocols and guidelines, such as updated/additional guidance for cleaning and disinfection, are followed.

When setting up procedures staff should:

- Use damp cleaning methods such as damp clean cloths, and/or a wet mop. Do not dust or sweep which can distribute virus droplets into the air.
- Place contaminated disposable cleaning items (e.g. mop heads, cloths) in a lined garbage bin before disposing of them with regular waste. Reusable cleaning items can be washed using regular laundry soap and hot water (60-90°C). Clean and disinfect surfaces that people touch often.

In addition to routine cleaning, surfaces that are frequently touched with hands should be cleaned and disinfected more often, as well as when visibly dirty. Shared spaces such as kitchens and bathrooms should also be cleaned more often.

In public places, where people touch surfaces, cleaning should be done at least daily and if possible, even more frequently (every 2 or 4 hours) (Finnish Institute of Occupational Health, 2020)

Specific equipment

Cleaning and disinfect rescue equipment (rescue tube, rescue can, rescue pole, ring buoys)

Clean and disinfect rescue equipment at the end of the day or during an exchange between lifeguards after cleaning, leave the rescue equipment immersed in the water during disinfection

Cleaning and disinfect training accessories and recreational toys and games

Clean and disinfect training accessories after use by a bather or daily after cleaning, leave the rescue equipment immersed in the water during disinfection and store to dry overnight.

Cleaning and disinfect PFD

Clean and disinfect training accessories after use by a bather or daily after cleaning, leave PFD immersed in the water during disinfection and store to dry overnight.

Cleaning and disinfect deck equipment

Clean and disinfect all surfaces of deck equipment that are frequently touched with hands at least daily.

Cleaning toilets

Toilets require careful cleaning instructions. Typically, carefully planned aseptic work instructions do not need to be changed according to these instructions. However, it is essential to note that viruses spread through feces and that cleaning a toilet bowl may create small droplets which could pose a risk to staff.

Cleaning instructions, which should be followed, are listed at:

<https://www.ttl.fi/en/cleaning-guidelines-for-the-prevention-of-covid-19-infections%E2%80%AF/>

Safe Water Management

The management of safe water is imperative during viral outbreaks like COVID 19. We know through the work of the United States Centres for Disease Control and Prevention that:

“There is no evidence that COVID-19 can be spread to humans through the water. Proper operation, maintenance, and disinfection (with chlorine or bromine) of pools should kill COVID-19.”

To ensure the disease is killed in swimming pool water aquatic facility operators should ensure water testing takes place as required by regulation or more frequently if required by protocols established by the facility.

Owner/operators should ensure their swimming pool water testing meets or exceeds the requirement of the Regulation or Guidelines.

	Indoor/Outdoor Pool	Outdoor Pool	Spa or Hot Tub
Chlorine	1.0–3.0 mg/l	3.0–5.0 mg/l	5.0–8.0 mg/l
Bromine	2.5–4.0 mg/l	3.0–5.0 mg/l	5.0–6.0 mg/l

Chlorine/bromine

FAC Levels

Free Available Chlorine levels should be carefully maintained at levels recommended by regulation or provincial guidelines. Operators may choose to enhance disinfection levels by raising levels above minimum levels until the COVID 19 virus is no longer present in the community.

Other tests

The control of other variables in the swimming pool water will ensure disinfection is effective. Careful monitoring of pH, Total Alkalinity, Calcium Hardness, Cyanuric Acid levels will enhance water safety.

The Lifesaving Society recommends the following minimum standards:

pH

Recommendation: pH 7.4–7.6

Total Alkalinity

Recommendation: Total Alkalinity 90–120 mg/l

Calcium Hardness

Recommendation: Calcium Hardness 200–400 ppm

Cyanuric Acid

Recommendation: Cyanuric Acid 25–40 ppm

Cyanuric Acid is used in Outdoor pools only. It extends the life of chlorine and prevents burn off from the effects of the sun.

Water Testing Requirements

	Automatic Devices	Manual Testing
Chlorine: Residual & Total	One manual reading per day and checked every 4 hr.	<ul style="list-style-type: none"> • 30 minutes before pool opens • Every 2 hr. the pool is open to bathers
Bromine: Residual & Total	One manual reading per day and checked every 4 hr.	<ul style="list-style-type: none"> • 30 minutes before pool opens • Every 2 hr. the pool is open to bathers
Alkalinity	One manual reading per day and checked every 4 hr.	<ul style="list-style-type: none"> • 30 minutes before pool opens • Every 2 hr. the pool is open to bathers
Cyanuric Acid	N/A	<ul style="list-style-type: none"> • Once per week minimum
Water Clarity	Black disc visible from 9 m One manual reading per day and checked every 4 hr.	<ul style="list-style-type: none"> • 30 minutes before pool opens • Every 2 hr. the pool is open to bathers

Sources

<https://www.canada.ca/en/public-health/services/publications/diseases-conditions/cleaning-disinfecting-public-spaces.html>

<https://www.publichealthontario.ca/-/media/documents/ncov/factsheet-covid-19-environmental-cleaning.pdf?la=fr>

<https://www.inspq.qc.ca/covid-19/environnement/nettoyage-surfaces>

<https://www.ttl.fi/en/cleaning-guidelines-for-the-prevention-of-covid-19-infections%E2%80%AF/>

<https://www.cdc.gov/healthywater/swimming/pdf/fecal-incident-response-guidelines.pdf>

<https://www.ttl.fi/en/cleaning-guidelines-for-the-prevention-of-covid-19-infections%E2%80%AF/>