



Ice Machines Cleaning and Maintenance Procedure

1. Guiding Principles

Effective: 07 December 2020

Ice storage receptacles and ice-making machines should be cleaned, disinfected and maintained on a regular basis as per manufacturers' instructions.

Ice and ice-making machines may be contaminated through:

- improper handling of ice by patients and/or staff
- improper storage of ice
- poor cleaning or maintenance of associated equipment
- ice handling equipment / implements.

Ice from contaminated ice machines may result in adverse events for patients. These include:

- colonisation of microorganisms
- blood stream infections
- gastrointestinal illness
- surgical site and skin infections
- respiratory infections including Legionnaires' disease.

Machines that dispense ice are preferable to those that require ice to be removed from bins or chests with a scoop.

2. Procedure

2.1 General instructions

Steps to avoid improper handling / contamination of ice include:

- hands must be washed before obtaining ice
- ice must never be dispensed by hands. For removing and distributing ice, a clean, smooth-surface and impervious ice scoop must be used. Hold the scoop by the handle; do not touch other parts of the scoop
- store the scoop separately in a container with a lid and not in the ice-holding compartment
- unused ice must not be returned to the ice-holding compartment
- ice for human consumption should be differentiated from ice for first aid or storage of clinical specimens
- pharmaceuticals or medical solutions must not be stored on ice intended for consumption.

2.2 Cleaning requirements

Schedule for cleaning must be set by users in accordance with manufacturer's instructions for use. In the absence of manufacturer's instructions clean as below for the type of ice machine in use.

Flap Door Access Ice Machine

Daily - external clean

- Clean the outside surfaces with neutral food grade cleaner with a single use cloth. Allow to dry
- The ice scoop and container must be washed in a dishwasher.
- Review the chamber for build-up of mould or other contaminants and clean accordingly.

Monthly - Interior clean

- Empty the ice storage compartment and discard all the ice
- Clean the compartment with catering neutral cleaner with single use cloth, including the ice drop flap. Rinse the compartment thoroughly with water and wipe dry with single use cloth.

Quarterly

- All removable components should be disassembled and cleaned on a quarterly basis and should include the water lines, air filter, water filter, vents and the condenser.

Annually

- Sanitation of the machine should be performed annually in accordance with the manufacturers' instructions for use with either a chemical disinfectant or by heat flushing and cleaning of water lines using a mild chlorine solution or water heated to a minimum of 65 degrees.

Self-dispensing Ice Machine

Daily- external clean

- Clean the outside surfaces with neutral food grade cleaner with a single use cloth. Allow to dry
- Clean the ice and water dispensing spouts. Allow to dry.

2.3 Storage of bagged ice

- Clean and sanitise freezers monthly
- Store bagged ice on shelves of the freezer; do not store ice on the floor
- Store away from possible contaminants such as raw meat and vegetables to prevent cross contamination (consider any possible leakage from above)
- Do not break up or loosen bags of ice on the floor or other unclean surfaces
- Avoid handling other material that may transmit bacteria to the ice
- Rinse the serving container with boiling water or sanitiser before and after storing ice. Serving containers to be fitted with a lid to prevent contamination and only be used for the purpose of storing ice
- Opened bags of ice to be used immediately and remainder disposed of and not stored.

2.4 General Cleaning and Maintenance

Ice machines to be inspected monthly, and drained, cleaned and refilled in accordance with the manufacturer's instructions, or at least once every 12 months. All internal wetted surfaces of ice machines, e.g. pipes, tanks, and hoses should be cleaned and disinfected at a minimum of once per year, ideally every 3-6 months to remove any Legionella, and other organisms that may be present.

Ice machines should be drained, cleaned and kept dry when not in use. Ice machines should always be disconnected from the water source in advance of planned water disruptions. If not disconnected, ice machines and their dispensers should be cleaned and flushed before use.

General steps for cleaning and maintaining ice machines, dispensers, and storage chests should only be used where manufacturer-recommended methods and TGA-registered disinfectants are not available.

1. Disconnect unit from power supply.
2. Remove and discard ice from bin or storage chest.
3. Allow unit to warm to room temperature.
4. Disassemble removable parts of machine that make contact with water to make ice.
5. Thoroughly clean machine and parts with detergent and water.
6. Dry external surfaces of removable parts before reassembling.
7. Check for any needed repair.
8. Replace feeder lines, as appropriate (e.g., when damaged, old, or difficult to clean).
9. Ensure presence of an air space in tubing leading from water inlet into water distribution system of machine.
10. Inspect for rodent or insect infestations under the unit and treat, as needed.
11. Check door gaskets (open compartment models) for evidence of leakage or dripping into the storage chest.
12. Clean the ice-storage chest or bin with fresh water and detergent; rinse with fresh tap water.
13. Sanitise machine by circulating a 50–100 parts per million (ppm) solution of sodium hypochlorite through the ice-making and storage systems for 2 hours (100 ppm solution), or 4 hours (50 ppm solution).
14. Drain sodium hypochlorite solutions and flush with fresh tap water.
15. Allow all surfaces of equipment to dry before returning to service.

2.5 Legionella control in ice machines

Legionella can survive freezing. A risk can arise if severely immunocompromised patients are given ice to suck on or chilled water to drink, which can lead to accidental aspiration of *Legionella*-contaminated water. Heat generated by an ice machine's compressor may create optimal growth temperatures in water supplying the ice machine. In addition, these devices often include activated carbon filtration on the inlet, which can remove residual disinfection from the water, increasing the opportunity for *Legionella* to colonise the device downstream of the carbon filter. It is recommended that activated carbon filtration is not used in ice machines and water coolers in health and aged care facilities.

The purchase of ice machines should be risk assessed and if a machine is required, consideration should be given to the purchase of machines that are easy to maintain and have filtration systems at point of use and no carbon filters.

3. Roles and Responsibilities

Accountability for all aspects of ice machine, cleaning, maintenance and water testing lies with management. Roles and responsibilities for compliance at each site to be designated by Operations Manager.

4. Compliance

Microbiological testing of ice for human consumption is conducted every 3-6 months under the HACCP accreditation which is in accordance with the Food Act 2008.

5. Records Management

Support services or hotel services manager as delegated by Operations Manager to maintain copies of cleaning, maintenance, and microbiological testing records.

6. Evaluation

Table compliance records at Regional Infection Prevention and Control committee/ Standard 3 committee. Review compliance annually, inspecting cleaning records, testing records, and maintenance records.

7. Standards

Food Standards Australia and New Zealand. (2016). *A guide to the food safety standards*. Retrieved May 2020, from <https://www.foodstandards.gov.au/publications/Pages/safefoodaustralia3rd16.aspx>

[National Safety and Quality Health Service \(NSQHS\) Standards Version 2](#)– Standard 3.1a, 3.2b, 3.4b, 3.11a,b, 3.12a

Standards Australia International. (2003). *Hospital-acquired infections: engineering down the risk*. Sydney: Standards Australia International

8. Legislation

[Food Act 2008](#) (WA)

9. References

Australian Commission on Safety and Quality in Health Care. (2019). [Australian guidelines for the prevention and control of infection in healthcare](#). Canberra: National Health and Medical Research Council.

Sehulster LM, Chinn RYW, Arduino MJ, Carpenter J, Donlan R, Ashford D, Besser R, Fields B, McNeil MM, Whitney C, Wong S, Juranek D, Cleveland J. [Guidelines for environmental infection control in health-care facilities](#). Recommendations from CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Chicago IL; American Society for Healthcare Engineering/American Hospital Association; 2004.

Royal Perth Bentley Group. (2019). [Ice machines cleaning and maintenance standard operational procedure](#).

enHealth (2015). [Guidelines for Legionella control in the operation and maintenance of water distribution systems in health and aged care facilities](#). Australian Government, Canberra.

10. Related Policy Documents

[WACHS Environmental Cleaning Policy](#)
[WACHS Infection Prevention and Control Policy](#)

11. Policy Framework

[Public Health](#)

**This document can be made available in alternative formats
on request for a person with a disability**

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