

Purpose

Long-term care (LTC) communities should explore alternative cooling measures and optimization of existing heating, ventilation, and air conditioning (HVAC) systems prior to considering the use of fixed or portable fans or air conditioners due to the risk of spread of microorganisms.

Scope

This document provides Infection Prevention and Control (IPC) guidance on the use of wall/ceiling mounted (fixed), portable electric fans and air conditioning units in LTC communities.

General Cooling Options for Care Communities

- Block direct sun from windows by using awnings, thermal curtains/blinds, and/or sun film on windows.
- If the outside air temperature is lower than inside temperature, open windows (up to 6 inches maximum – windows secured) to bring in fresh air and to help with ventilation in LTCs without centralized HVAC systems.
- Monitor indoor heat temperatures in all areas of the building to ensure indoor temperatures remain below 26°C as per licensing standards. Please refer to Heat [Preparedness and Indoor Temperature Standard for Licensed Long-term Care Facilities](#)
- Identify cooling options/areas Please refer to [CLINICAL PRACTICE GUIDELINE: Prevention, Identification, and Management of Heat-Related Illness in Long-Term Care \(LTC\) Homes](#) for details.
- Note: Fans can be counterproductive when the outside air temperature is >35°C and cannot be relied upon as a primary cooling method for vulnerable individuals.

Guidelines for Use

- Appropriate positioning and risk assessment shall be considered to mitigate hazards involved in the use of fans, e.g., trip hazard from electrical cords.
- Floor fans (the blades/housing portion) shall be mounted on a stand approximately 76 centimeters (30 inches) above the floor. The blades/housing shall not be angled toward the floor in order to avoid high velocity turbulence at the ground level which could result in contamination of adjacent surfaces, equipment and consumables.
- Desk/table top fans shall be suitably placed on a flat horizontal surface, (e.g., a table). The blades/housing shall not be angled toward the floor or across environmental surfaces.
- Ceiling mounted fans shall be set to a low or moderate speed to avoid high velocity turbulence at ground level.
- If using floor fans, the direction of the airflow in resident rooms must be directed above their head towards the ceiling, avoiding smoke detectors. Also, avoid having fans move air from one resident to the next in multibed rooms.
- Turn off fans during resident care and room cleaning.
- In non-resident areas, such as nursing stations, airflow should be directed within the area rather than blowing into the hallway or other adjoining rooms.
- Electric fans (fixed or portable) shall NOT be used in the following situations:
 - RI outbreaks and Enhanced monitoring; however, if fan use is necessary due to special circumstances, please consult IPC for further guidance.
 - Residents who have excessive skin shedding/peeling and/or itchy skin
 - During aseptic or clean clinical procedures (e.g., dressing changes, aerosol generating procedures)

Cleaning and Maintenance

The airflow path of all fans, including fan blades and impellers which move air, must be able to be accessed for routine cleaning and disinfection. Blade cages or shielding in the airflow path that may accumulate dust and debris must be able to be disassembled for cleaning and disinfection. All portable air conditioning units must be able to be cleaned and disinfected ensuring all touch surfaces, filters and drip trays can be accessed for this purpose

- Fans and AC units shall be cleaned regularly, at a minimal weekly with a neutral detergent. If they are visibly dusty, they should be cleaned immediately. Perform hand hygiene before and after cleaning, handling or maintaining air conditioner and fan parts.
- Clean and disinfect prior to first use.
- Empty clean and disinfect the AC drip pan daily to prevent biofilm buildup.
- Remove any water sitting in the air conditioner pans when not in daily use - empty, clean and disinfect the drip pan and allow to dry completely before storing.
- Vent the portable AC units out windows, where possible.

References

- Health Canada. (2022). [Extreme heat and COVID-19](#)
- [Fraser Health \(2022\). Heat Related Illness DST.](#)
- Fraser Health Infection Prevention and Control Guidelines Use of Fans in Healthcare Facilities SOP.
- Health Link BC. (2021). Heat related illness.
- [Licensing standard - Heat Preparedness and Indoor Temperature Standard for Licensed Long-term Care Facilities.](#)
- Public Health Ontario (2020). The Use of Portable Fans and Portable Air Conditioning Units during COVID-19 in Long-term Care and Retirement Homes