

Cleaner Air Spaces

The document provides information for First Nations community leadership and building/facility operators on cleaner air spaces that can be utilized during wildfire smoke events. Additional details on cleaner air spaces can be found in Health Canada's [Guidance for Cleaner Air Spaces during Wildfire Smoke Events](#).

Wildfire smoke contains a variety of pollutants that are harmful to health. During a wildfire smoke event, staying indoors in a place that can provide cleaner and cool air can help reduce exposure to smoke.

When community members are unable to maintain cleaner air indoors at home during a wildfire smoke event or do not have air conditioning and it is too warm to stay inside with the windows open, community cleaner air spaces can provide relief from wildfire smoke conditions. This is especially important for sensitive or medically fragile individuals; these spaces can also help to combat isolation during a prolonged smoke event.

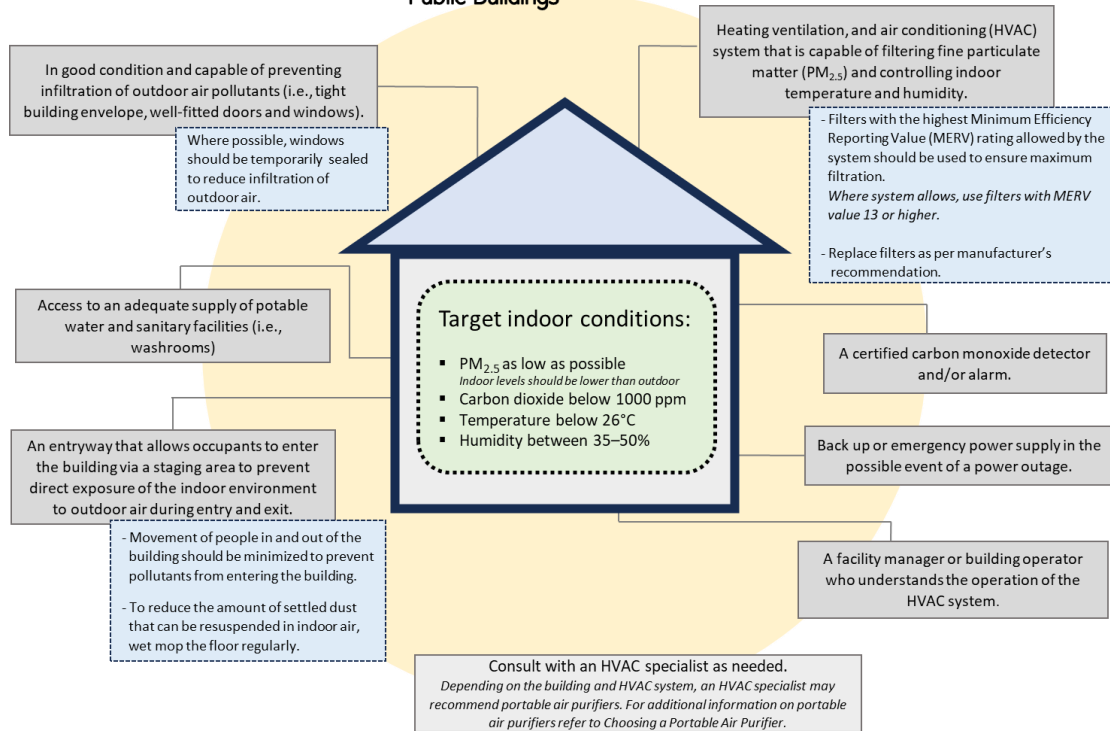
Cleaner air spaces are public indoor areas, rooms or buildings that limit infiltration of outdoor air pollutants and aim to keep the indoor air as clean as possible. In communities, buildings such as schools, community centres and band halls have the potential to be cleaner air spaces and offer relief to community members during wildfire smoke events.

Long-term care, personal care homes and health-care facilities should be given special consideration for cleaner air spaces as clients cannot be easily relocated in these types of facilities.



CLEANER AIR SPACES

Public Buildings



For guidance on food safety, waste, pest control and sanitation, consult with your community's Environmental Public Health Officers.

In certain cases, individuals may decide or be required to shelter at home during wildfire events. In these circumstances, individuals can limit exposure by preventing infiltration of outdoor pollutants and reducing other sources of indoor air pollutants within the house.

The following strategies can be employed to help protect indoor air quality:

- Close all windows and doors.
Where possible, seal gaps around windows and doors to prevent infiltration of outdoor pollutants.
- Limit the use of exhaust fans and external vents.
- Where applicable, turn the fresh air intake off and set heating ventilation, and air conditioning (HVAC) system to recirculation mode.
 - Use filters with the highest minimum efficiency reporting value (MERV) rating allowed by the system to ensure maximum filtration.
 - It is recommended to maintain indoor temperature below 26°C.
- Avoid creating other air pollution (e.g., smoking, burning candles, gas and wood stoves, and certain cleaning products).
- Unless your vacuum is equipped with a HEPA filter, avoid vacuuming as this can stir up dust. Settled dust can be removed by wiping and wet mopping.
- Using portable air purifiers (with HEPA filters) can reduce indoor particulate levels.
For additional information on air purifiers please refer to *Using an Air Purifier to Filter Wildfire Smoke*.

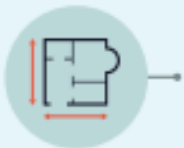
USING A PORTABLE AIR CLEANER TO IMPROVE INDOOR AIR



PORTABLE AIR CLEANERS, also referred to as air purifiers, can help **IMPROVE INDOOR AIR** quality by removing small particles that can be a risk to your health. Air contaminants (particles, dust, pollen) can get inside your home through windows, doors, vents, air intakes and other openings. Air contaminants can also be produced by sources indoors (cooking, candles, woodstoves).

TIPS FOR CHOOSING THE BEST AIR CLEANER FOR YOUR HOME

Look for a device certified by the **Association of Home Appliance Manufacturers (AHAM)**.



Portable air cleaners are rated for room area measured in square feet. Measure the dimensions of the room where you will use your air cleaner and calculate the square footage.

- For example, a room with the dimensions of 10 feet by 12 feet has an area of 120 square feet.
- Device ratings assume an 8-foot ceiling. If your ceilings are higher than 8 feet, you'll need an air cleaner rated for a larger room.



Look for the suggested room size and the clean air delivery rate (CADR) on the AHAM label. Choose an air cleaner sized for the room you will use it in.

- The CADR describes how well the device reduces tobacco smoke, dust and pollen. These 3 sources refer to 3 different sizes of particles. To reduce fine particles, select a device with the highest tobacco smoke CADR that fits within your budget. The higher the tobacco smoke CADR number, the more fine particles the device can remove. This also applies when using a portable air cleaner to filter wildfire smoke, as wildfire smoke contains fine particles (PM_{2.5}).
- Calculate the minimum tobacco smoke CADR required for a room: as a general guideline, the tobacco smoke CADR of your air cleaner should be equal to at least two-thirds of the room's area.
 - For example, in a room with an area of 120 square feet, it would be best to have a device with a smoke CADR of at least 80.



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Portable air cleaners often achieve a high CADR by using a high-efficiency particulate air (HEPA) filter. Both airflow and filter efficiency will impact how well the device works.



Some devices may also include an activated carbon or other absorbent filter. These may help to remove gases such as volatile organic compounds (VOCs). However, there are no widely used performance rating systems for filters designed to remove gases.



Avoid devices that produce ozone, as ozone can harm your health. The California Air Regulatory Board (CARB) lists air cleaners that have passed testing for ozone emissions.



Consider selecting a device with a lower noise rating.

USING YOUR PORTABLE AIR CLEANER



To get the most out of your portable air cleaner:

- keep your doors and windows closed
- operate your portable air cleaner in a room where you spend a lot of time
- follow manufacturer instructions for proper placement and use of your portable air cleaner. In general:
 - clean or replace the filter as recommended by the manufacturer
 - position the air cleaner to avoid blowing directly at or between people in the room
 - place your portable air cleaner in a location where air flow won't be blocked by walls, furniture or other objects in the room
 - higher fan speeds and longer run times will increase the amount of air that's filtered



WHEN TO VENTILATE YOUR HOME

While filters in portable air cleaners can help capture some contaminants, the best ways to improve indoor air are to remove the source of the contaminants and to ventilate with clean, outdoor air.

Before opening windows or doors, get up-to-date information about outdoor air quality conditions in your region by checking:

- Air Quality Health Index (AQHI) forecasts
- InfoSmog forecasts for Quebec
- Active weather warnings and air quality advisories
- provincial and territorial governments' websites

For more information on **keeping your indoor air clean**, visit **www.canada.ca/airhealth**

Detailed text on Cleaner Air Space

Buildings utilized as cleaner air spaces should be:

- In good condition and capable of preventing infiltration of outdoor air pollutants (i.e., tight building envelope, well-fitted doors and windows).
 - Where possible, windows should be temporarily sealed to reduce infiltration of outdoor air.
- Equipped with a heating ventilation, and air conditioning (HVAC) system that is capable of filtering fine particulate matter (PM_{2.5}) and controlling indoor temperature and humidity.
 - Use filters with the highest minimum efficiency reporting value (MERV) rating allowed by the system to ensure maximum filtration.
 - A filter with MERV value 13 or higher is recommended.
Ensure the HVAC system is capable of handling a pressure drop from installing a filter stack of MERV 13 or higher.
 - Replace filters as per manufacturer's recommendation.
 - Maintain indoor temperature below 26°C and humidity between 35–50%.
 - Consult with an HVAC specialist as needed.
Depending on the building and HVAC system, an HVAC specialist may recommend portable air purifiers. For additional information on portable air purifiers refer to *Choosing a Portable Air Purifier*.
- Equipped with a certified carbon monoxide detector/alarm.
- Equipped with an entryway that allows occupants to enter the building via a staging area to prevent direct exposure of the indoor environment to outdoor air during entry and exit.
 - Movement of people in and out of the building should be minimized to prevent pollutants from entering the building.
 - Wet mop the floors to reduce the amount of settled dust that can be resuspended in indoor air.
- Have access to an adequate supply of potable water and sanitary facilities (i.e., washrooms).
- Connected to emergency power in the possible event of a power outage.
- Staffed with a facility manager/building operator who understands the operation of the HVAC system.

For additional details on cleaner air spaces refer to the [Health Canada's Guidance for Cleaner Air Spaces during Wildfire Smoke Events](#)