Wildfire Smoke - Clean Air Shelters

Wildfire smoke can have additional health risks for vulnerable populations or create irritating symptoms in healthy individuals. Staying indoors is recommended during smoke events to reduce exposure to smoke. Creating a clean air shelter is effective to reduce exposure. If your area is regularly impacted by smoke, plan your clean air shelters before the smoke season so that you are prepared.

Clean air shelters are areas, rooms or buildings that have a filtration system that reduces the amount of particulates generated by wildfire smoke. The objective, as in the image below, is to limit outdoor air entering the home, avoid creating indoor air pollutants, and filtering indoor air.

There are no specific standards or air quality measurements for clean air shelters. A review of science-based literature has shown that central air units are effective at reducing particulate materials/matter.

**Home clean air shelter (home-CAS)** is your home, or room of your home, with filtration that is suitable for reducing smoke exposure.

- Close all windows and doors.
- Seal cracks around doors and windows.
- Turn off exhaust fans, window air conditioners or other external vents.
- A central air system or air conditioning system can be used.
- Turn the fresh-air intake off and set to recirculate.
- A high efficiency particulate air (HEPA) filter is best; however conventional filters will lower PM levels to a lesser degree.
- Portable air cleaners (HEPA or electrostatic air filters) can be very effective at reducing smoke particles. Be sure that the unit is appropriately sized for the room.
- Avoid creating other air pollution (e.g. smoking, burning candles, gas and wood stoves, and certain cleaning products). Avoid vacuuming which can stir up dust.
During heat events, air conditioning may be needed to keep the home cool and reduce heat stress.

During periods when smoke clears open windows and doors to provide fresh air into the home.

**If you do not have a central air system or access to a portable air cleaner, taking the steps above to limit smoke entering the home will still help to reduce smoke levels in the home. Ground floor or basement levels tend to be cooler and may be less impacted by smoke.**

<table>
<thead>
<tr>
<th>Portable air cleaners should meet these standards:</th>
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<tbody>
<tr>
<td>• Designated as HEPA or electrostatic precipitator</td>
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<tr>
<td>• CADR rated for tobacco smoke</td>
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<td>• Sized for the room it will be used in</td>
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**Community clean air shelter (community-CAS)** is a building or area of a building, with filtration that is suitable for reducing smoke exposure and is made available to community members to provide temporary relief during smoke events.

- Buildings such as band halls or schools, shopping malls, libraries or community centres usually have appropriate cooling and air filtration equipment.
- Conventional filters provide some reduction in particulate levels.
- Consider installing HEPA filters in long-term care or Elders facilities, child care centres and schools to reduce exposure for these more vulnerable populations.
- Confirm with a professional if the building system is suitable for a HEPA filter.
- Any modifications to building HVAC systems should be done by a professional.
- Consider giving vulnerable populations priority access to these areas.

FNHA Environmental Health Officers can work with communities to identify suitable community-CAS and provide advice on home-CAS.

At this time, FNHA does not provide funding for the purchase of portable air cleaners. Communities are encouraged to prioritize purchases for vulnerable populations. Consult with emergency response programs to confirm eligible purchases.