

HOUSING AND WELLNESS PROGRAM

# A Comprehensive Wellness Guide for **Healthy Homes**

## INDOOR AIR QUALITY



First Nations Housing  
Professionals Association

L'Association des professionnels de  
l'habitation des Premières Nations

A close-up photograph of a wolf's face, showing its eyes, ears, and fur. The image is partially obscured by a dark, semi-transparent rectangular overlay that contains text. A solid yellow horizontal bar is located at the bottom of the page.

## Home

Prioritizing the wellness of the home is key to creating safe and supportive space for individuals and families. A home is more than just a physical space; it's a place of comfort, security, and belonging.

Creating a guide focused on supporting the wellness of the home is essential for promoting the overall well-being of its occupants. This guide offers practical tips and resources to strengthen various aspects of home wellness. By supporting the health of our homes, we also promote the physical and mental well-being of everyone who lives there.

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## Acknowledgement

The First Nations Housing Professionals Association (FNHPA) is delighted to introduce the Housing and Wellness Program, aimed at offering crucial information and guidance to First Nations individuals residing on reserve or engaged in housing-related roles. This initiative delivers educational programs, tools, and resources tailored for First Nations housing staff, residents, and youth. Through the implementation of this program, our aim is to address housing, health, and safety concerns holistically.



# INDOOR AIR QUALITY

Indoor air quality (IAQ) refers to the condition of the air inside your home and is influenced by factors such as pollutants, humidity, temperature, and ventilation. Good indoor air quality is important for health, comfort, and overall well-being. Poor air quality can lead to discomfort, health concerns, and reduced indoor comfort. Taking steps to monitor and improve indoor air quality can help create a healthier living environment.

**Disclaimer:** This guide provides general information intended to support home wellness, safety, and well-being. Each First Nation may have its own housing policies, programs, bylaws, and community guidelines. Please refer to local policies and community resources for the specific rules, responsibilities, and supports that apply to your home.

# Health Effects

Poor indoor air quality can affect your health in different ways, from mild discomfort to more serious long-term concerns. Some common health impacts include:

## Respiratory problems

Pollutants such as dust, pollen, mould, and pet dander can irritate the airways and trigger asthma, allergies, and irritation of the eyes, nose, and throat.

## Headaches and fatigue

Exposure to indoor pollutants, including volatile organic compounds (VOCs), can cause headaches, fatigue, or dizziness.

## Worsened pre-existing conditions

People with asthma, allergies, or other respiratory conditions may experience more frequent or severe symptoms.

## Increased risk of infection

Poor ventilation can allow airborne bacteria and viruses to spread more easily, increasing the risk of illnesses such as colds and flu.

## Cardiovascular impacts

Fine particles can be inhaled deep into the lungs and enter the bloodstream, which may increase the risk of heart-related concerns.

## Chronic health concerns

Ongoing exposure to indoor pollutants may be linked to respiratory and cardiovascular conditions over time.

While these health impacts can be concerning, many risks can be reduced through simple actions. Improving ventilation, reducing indoor pollutants, and maintaining a clean, well-ventilated home can help support better air quality and overall well-being.



## Sources of Indoor Air Pollutants

Indoor air pollution can come from many everyday sources within and around the home. Common sources include:

### Combustion appliances

Gas stoves, furnaces, fireplaces, and space heaters can release harmful gases if not properly maintained or vented.

### Tobacco smoke

Smoking indoors releases harmful chemicals and fine particles into the air.

### Building materials and furnishings

Carpets, furniture, paints, and construction materials may release pollutants, especially when new or in poorly ventilated spaces.

### Household cleaning products

Cleaners, disinfectants, and air fresheners can release airborne chemicals, particularly when used without proper ventilation.

### Pesticides and insecticides

Indoor use can contribute to poor air quality, especially if overused or applied improperly.

### Mould and mildew

Damp conditions can lead to mould growth, which releases spores into the air.

### Pets

Pet dander can become airborne and trigger allergies or respiratory symptoms.

### Outdoor pollutants

Vehicle exhaust, pollen, and other outdoor pollutants can enter the home through windows, doors, and ventilation systems

### Cooking activities

High-heat cooking, especially frying, can release gases and fine particles into indoor air.

Understanding these sources can help you take steps to reduce exposure and improve indoor air quality in your home.



## Common Indoor Air Pollutants

Indoor air can contain a variety of pollutants, many of which come from common household sources. Understanding these pollutants can help you identify risks and take steps to improve air quality.

### Fine particulate matter (PM)

Includes dust, pollen, and soot. These tiny particles can irritate the lungs and worsen asthma or allergies.

### Volatile organic compounds (VOCs)

Found in paints, cleaning products, and building materials. They can cause headaches, dizziness, and irritation with exposure.

### Carbon monoxide (CO)

An odourless, colourless gas produced by incomplete combustion from sources such as gas stoves and furnaces. High levels can be dangerous.

### Nitrogen dioxide (NO<sub>2</sub>)

Released from gas appliances and vehicle emissions. It can irritate the airways and contribute to respiratory issues.

### Formaldehyde

Released from some furniture, flooring, and household products. It may cause irritation and other health effects with long-term exposure.

### Ozone (O<sub>3</sub>)

Can form indoors through chemical reactions involving certain products. Elevated levels may irritate the lungs and worsen breathing problems.

### Radon

A naturally occurring gas that can enter homes through cracks in foundations and may increase health risks over time if levels are high.

## Measuring Indoor Air Quality

Monitoring indoor air quality can help identify potential issues, assess pollutant levels, and guide improvements. The methods used will depend on the specific pollutants of concern.

### Air quality monitors

These devices measure a range of pollutants, including particulate matter (PM), VOCs, carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), and ozone (O<sub>3</sub>). They provide real-time data and can help track air quality in your home.

### Carbon dioxide (CO<sub>2</sub>) monitors

Used to help assess ventilation. High CO<sub>2</sub> levels can indicate poor airflow and a buildup of indoor pollutants.

### Radon test kits

Designed to detect radon gas. Tests may be short-term or long-term and help determine whether mitigation is needed.

## Improving Indoor Air Quality

Improving indoor air quality helps create a healthier and more comfortable home environment. The following strategies can help reduce indoor pollutants and support better air quality:

### Ventilate regularly

Open windows and doors when weather allows to bring in fresh air and reduce indoor pollutant buildup.

### Use air purifiers

Place HEPA-filter air purifiers in frequently used areas to help capture dust, pollen, pet dander, and other airborne particles.

### Clean frequently

Vacuum carpets and furniture, dust with a damp cloth, and clean surfaces regularly to reduce allergens and mould.

### Control humidity

Maintain indoor humidity between 30–50% to limit mould and dust mites. Use dehumidifiers in damp areas such as basements and bathrooms.

### Reduce indoor pollutants

Limit indoor tobacco use and reduce exposure to harsh cleaning products and VOC-emitting items. Use proper ventilation when cooking or using chemicals indoors.

### Avoid synthetic fragrances

Choose fragrance-free products or natural alternatives instead of scented candles and air fresheners.

### Maintain HVAC systems

Replace filters regularly and schedule routine maintenance to support proper air circulation and filtration.

### Incorporate indoor plants

Some plants may help improve air freshness when properly maintained.

### Prevent moisture buildup

Repair leaks promptly and use exhaust fans in kitchens and bathrooms to reduce excess moisture.

### Test for radon and carbon monoxide

Install and maintain detectors to monitor for these invisible hazards.

## Cooking and IAQ

Maintaining good air quality while cooking can help reduce indoor pollutants and create a healthier home environment. Consider the following tips:

### Use ventilation

Run a kitchen exhaust fan or open windows while cooking to remove smoke, steam, and fumes.

### Clean regularly

Keep stovetops, range hoods, and surrounding surfaces clean to reduce grease and pollutant buildup.

### Choose safe cookware

Avoid overheating non-stick cookware, as it can release fumes at high temperatures.

### Vent gas appliances

Ensure gas stoves and ovens are properly vented outdoors to prevent buildup of carbon monoxide and other gases.

### Cook thoughtfully

Use lids on pots and pans to reduce emissions and avoid burning food, which can release fine particles and irritants.

### Manage humidity

Monitor moisture levels in the kitchen and use ventilation or a dehumidifier as needed.

### Use low-toxicity cleaners

Choose fragrance-free or non-toxic cleaning products to reduce the release of airborne chemicals.

### Manage food waste

Store food waste in sealed containers and empty bins regularly to reduce odours and air contamination.

## Household Chemical Safety

Household cleaning products can affect indoor air quality by releasing volatile organic compounds (VOCs), synthetic fragrances, and other potentially harmful substances. The following tips can help reduce exposure and support a healthier home environment:

### Choose safer cleaning products

Select products that are non-toxic, biodegradable, and free from harsh chemicals, artificial fragrances, and dyes. Look for labels that indicate low or no VOC content.

### Read labels carefully

Check product labels for potentially harmful ingredients. Avoid products containing ammonia, bleach, or formaldehyde when possible, as they can affect indoor air quality and respiratory health.

### Use proper ventilation

Open windows and doors or use exhaust fans when cleaning to help remove fumes and airborne chemicals.

### Dilute concentrates as directed

Many cleaners are sold in concentrated forms. Follow instructions to reduce chemical strength and exposure during use.

### Limit aerosol use

Aerosol sprays release fine particles and VOCs into the air. Choose pump sprays or liquid alternatives when possible.

### Avoid mixing products

Never mix cleaning products unless the manufacturer indicates it is safe. Mixing chemicals such as ammonia and bleach can produce harmful gases.

### Use microfiber tools

Microfiber cloths and mops can clean effectively with little or no chemicals and help trap dust and allergens.

### Dispose of products safely

Follow local hazardous waste guidelines when disposing of unused or expired products. Avoid pouring chemicals down drains or placing them in regular trash.

### Store products safely

Keep cleaning products in a cool, dry place, out of reach of children and pets. Ensure containers are tightly sealed to prevent leaks and vapours.





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