

HOUSING AND WELLNESS PROGRAM

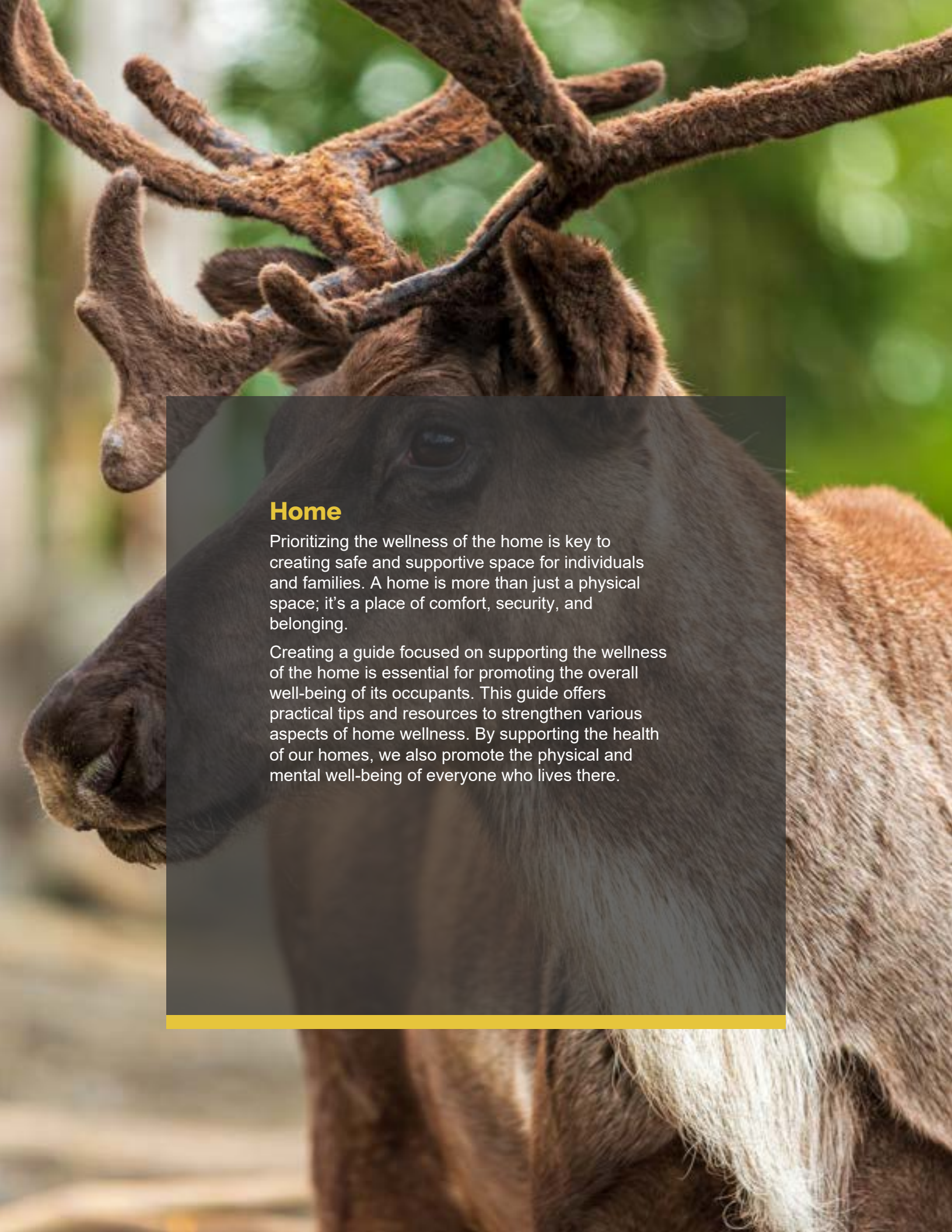
# A Comprehensive Wellness Guide for **Healthy Homes**

## **RADON**



First Nations Housing  
Professionals Association

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



## 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.



# RADON

Radon is a naturally occurring, colourless and odourless gas produced by the breakdown of uranium in soil, rock, and water. It can enter homes through cracks in foundations, gaps around pipes, or other openings.

Radon is found both indoors and outdoors, but it can become a health concern when it builds up to high levels inside a home. Because it cannot be seen or smelled, testing is the only way to know if levels are elevated.

If high radon levels are detected, mitigation measures can help reduce exposure and support a healthier indoor 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 Impacts

Radon is the second leading cause of lung cancer after smoking and is linked to thousands of deaths each year. When inhaled, radon breaks down into radioactive particles that can become trapped in the lungs and increase the risk of lung cancer over time. Exposure may also worsen respiratory symptoms in sensitive individuals.

Several factors can influence health risks associated with radon exposure:

## Duration of exposure

Long-term exposure to elevated radon levels can increase the risk of developing lung cancer.

## Radon concentration

Higher indoor radon levels are associated with greater health risks.

## Smoking

Smoking combined with radon exposure significantly increases the risk of lung cancer compared to either risk alone.

## Individual factors

Age, genetics, and pre-existing respiratory conditions can affect a person's level of risk.

While these risks can be concerning, radon exposure can be managed through testing and mitigation. Identifying elevated levels early allows you to take steps to reduce exposure and support a safer, healthier home environment.

## Radon Testing

Because radon cannot be seen or smelled, testing is the only way to know whether levels are elevated in your home. There are two main options:

- Use a DIY radon test kit
- Hire a certified radon professional

### DIY Test Kits

You can purchase radon test kits to measure levels in your home. These kits are typically designed for either short-term or long-term testing:

- **Short-term test kits:** Measures radon levels over a few days and provides an initial indication of radon presence, but may not reflect long-term exposure.
- **Long-term test kits:** Remains in place for several months and provides a more accurate picture of average radon levels over time.

Health Canada recommends long-term testing for at least three months, ideally during the fall or winter. Test kits should be placed in the lowest lived-in level of the home where occupants spend at least four hours per day.

If radon levels are above the Canadian guideline of 200 Bq/m<sup>3</sup>, a C-NRPP-certified professional can help reduce levels safely and effectively. Using certified test kits and qualified professionals helps ensure reliable results.

## Radon Mitigation

If radon levels exceed recommended guidelines, mitigation is needed to reduce health risks. Radon mitigation should be carried out by a C-NRPP-certified professional to ensure systems are properly designed, installed, and maintained.

Mitigation typically involves installing systems that prevent radon from entering the home or safely vent radon gas outdoors. The most appropriate solution depends on the home's construction, foundation type, and radon levels. A certified professional can assess your home and recommend the best approach.

## Follow-Up Testing

After mitigation is completed, long-term follow-up testing is important to confirm that radon levels have been reduced below the Canadian guideline of 200 Bq/m<sup>3</sup>. Ongoing testing may also be recommended to ensure the system continues to work effectively over time.

## Radon Prevention

While radon cannot always be completely eliminated, prevention strategies can help reduce how much radon enters and builds up in a home. Key prevention measures include:

### Radon-aware construction

In new builds or major renovations, radon-resistant features can be incorporated to help limit radon entry. These measures are best planned and installed by qualified professionals.

### Seal entry points

Inspect and seal cracks, gaps, and openings in foundations, walls, floors, and around pipes or utility penetrations to help reduce radon entry.

### Improve ventilation

Maintain good airflow, especially in basements and crawl spaces, to help dilute indoor radon levels and reduce buildup.



### Manage drainage

Ensure water drains away from the foundation and that grading and drainage systems are well maintained, as soil conditions can affect radon movement.

### Test regularly

Test radon levels every few years and after major renovations to ensure levels remain within recommended guidelines.

### Address elevated levels

If testing shows high radon levels, a certified professional can recommend and install appropriate mitigation measures.



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