



What's Your IAQ IQ?

A Guide to Indoor Air Quality Monitors in the Library of Things

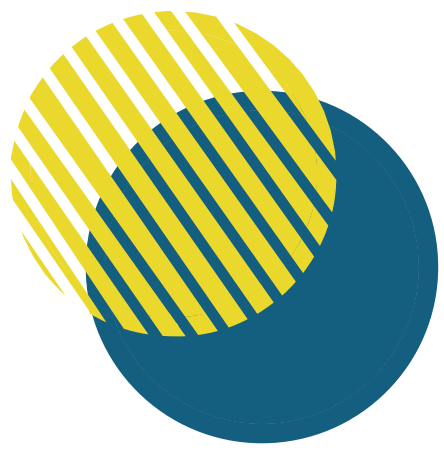




Land Acknowledgment

BC Lung Foundation is dedicated to providing lung health support for all British Columbians including First Nations, Métis, and Inuk (Inuit) communities across the province. We affirm with respect the traditional territories that we live and work on. BC Lung's office is located on the unceded lands of the x^wməθk^wəyəm (Musqueam), Sk̓wx̓wú7mesh (Squamish) and səlilwətał (Tsleil-Waututh) Nations.





Training Agenda

- Why Does IAQ Matter?
- PM 2.5
- Radon
- Wood Moisture
- Additional Resources





Why does Indoor Air Quality (IAQ) matter?

- According to HealthLink BC, British Columbians spend 90% of their time indoors at home, school, and work.
- Poor IAQ can cause or worsen allergies, breathing problems, chronic health conditions, and even cancer.
- Many things affect poor IAQ, like mould, pet dander, smoking, and wildfire smoke.
- Today we are focusing on **PM 2.5**, **radon**, and **wood moisture**.

Okanagan Regional Library patrons can test their homes for these using monitors from the Library of Things!





Fine Particulate Matter (PM 2.5)

- PM 2.5 are tiny particles in the air, usually consisting of smoke, soot, mould, bacteria, pollen, or animal dander.
- Indoors, it can come from candles, incense, fireplaces, cooking, and smoking.
- Outdoors, it can come from wildfires, vehicles, and industrial pollution.
- This outdoor pollution also becomes a problem indoors due to ingress – outside air entering a building through open windows, unsealed building envelopes, or malfunctioning ventilation systems.
- PM 2.5 can cause breathing problems and worsen lung or heart diseases.





Testing for PM 2.5

- The Library of Things has several **Temtop M10+** monitors.
- PM 2.5 is measured in micrograms per cubic metre ($\mu\text{g}/\text{m}^3$).
- The Government of BC says acceptable PM 2.5 levels should average **less than 25 $\mu\text{g}/\text{m}^3$** in a 24-hour period.

Preventing PM 2.5

- Run the exhaust fan while cooking.
- Don't smoke or vape indoors.
- Avoid burning candles or incense.
- Close doors and windows when outdoor PM 2.5 levels are high.
- Use an air purifier with a HEPA filter.



Radon

- Radon is a radioactive gas released from naturally occurring uranium in soil and rocks. It is odourless and invisible.
- Outdoors, radon is diluted in the air and is not harmful, but indoors, radon gets trapped and builds up over time.
- When people breathe in radon gas, radioactive decay particles can get lodged in their lungs, which can lead to lung cancer.
- Radon is the leading cause of lung cancer among non-smokers.
- In people who smoke, exposure to radon increases their risk of developing lung cancer by 8x.
- Radon can be in any home, regardless of the home's age or whether or not there's a basement.





Testing for Radon

- The Library of Things has several **Airthings Corentium Home** radon monitors.
- Radon is measured in becquerels per cubic metre (Bq/m³).
- Health Canada recommends radon remediation/mitigation if annual levels are above **200 Bq/m³**.

Fixing Radon

- If your home's radon level is above 200 Bq/m³, hire a certified radon professional to determine the best plan for your home.
- Find a certified radon professional at takeactiononradon.ca.



Wood Moisture

- For people who heat their homes with a wood stove, it's important that they burn seasoned (dry) hardwood.
- Burning wet wood releases more smoke, which contains PM 2.5, carbon monoxide (CO), volatile organic compounds (VOCs), formaldehyde, and other hazardous chemicals.
- Wood smoke can cause or worsen respiratory symptoms, asthma, COPD, and lung disease.





Testing for Wood Moisture

- The Library of Things has several **wood moisture meters** available.
- Wood moisture is measured in percentages.
- Firewood's moisture content should be **less than 20%**.

Preventing Wood Moisture

- Dry firewood for at least 6 months before using and keep it sheltered from the weather.





Additional Resources

PM 2.5

- [Air Quality Health Index \(AQHI\)](#)
- [BC Centre for Disease Control \(BCCDC\) Wildfire Smoke webpage](#)
- [The BREATHE Project: DIY Air Cleaners](#)
- [Interior Health Air Quality Information](#)
- [Regional District of Central Okanagan Air Quality](#)

Radon

- [Take Action on Radon](#)

Wood Moisture

- [Community Wood Smoke Reduction Program](#)





Thank You

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