



Measurement Location (according to Health Canada)

To provide a realistic estimate of radon exposure to the occupants, all measurements should be made in the normal occupancy area of the lowest lived-in level of the home. The normal occupancy area is defined as any area occupied by an individual for more than 4 hours per day. Potential measurement locations include family rooms, living rooms, dens, playrooms and bedrooms. Low-level bedrooms (e.g. main floor or basement) should be tested because people generally spend more time in their bedrooms than in any other room in the house. Similarly, if there are children in the home, areas such as basement-level playrooms should be tested. The basement is only considered a potential measurement location if it is occupied for at least 4 hours per day or if there are plans to renovate (add a bedroom or playroom/family room) which will result in occupancy of more than 4 hours per day.

The measurement location should be selected so that there is a reasonable expectation that the measurement device will not be disturbed during the measurement period.

- The preferred device location is **near an interior wall at a height of 0.8 m to 2 m (3 to 6.5 feet) from the floor** in the typical breathing zone, **at least 50 cm (20 inches) from the ceiling and 20 cm (8 inches) from other objects** so as to allow normal airflow around the detector. Depending on the detector used, this may be accomplished by suspending the detector from the ceiling. **Detectors should be placed approximately 40 cm (16 inches) from an interior wall or approximately 50 cm (20 inches) from an exterior wall.**
- The primary purpose of testing is to assess the level of radon to which occupants are exposed. Therefore, areas should not be chosen to test where occupants do not spend much of their time. Efforts should be concentrated on testing rooms in the lowest level of the home where occupants spend at least 4 hours per day.
- Measurements should not be made in bathrooms because relatively little time is spent in a bathroom.
- Measurements should not be made in closets, cupboards, near sump holes, crawl spaces, or nooks within the foundation. Radon concentrations in these areas are not representative of the concentration in the occupied area of the home.
- The device location should not be in air currents caused by heating, ventilating and air conditioning vents, doors, fans and windows. Locations near heat, such as over radiators, near fireplaces or in direct sunlight, should be avoided as some measurement devices may be affected. Similarly, devices should not be placed on or near electrically powered appliances or equipment such as computers, television sets, stereos or speakers as some measurement devices may be affected.
- Radon measurements conducted in homes without central air conditioning during periods of warm weather are likely to give misleading results due to the very high likelihood that windows will be open during the measurement period. This problem can be reduced by increasing the duration of the test, and underscores the importance of a long-term radon measurement.

-Windows on all levels and external doors are kept closed for the duration of the test, except during normal entry and exit. Normal entry and exit include a brief opening and closing of a door, but external doors should not be left open for more than a few minutes.

-External-internal air exchange systems such as high-volume, whole-house and window fans are not operated. However, attic fans intended to control attic temperature or humidity may be operated. Combustion or furnace makeup air supplies must not be closed.

-Normal operation of permanently installed energy recovery ventilators (also known as heat recovery ventilators or air-to-air heat exchangers) may continue. In houses where permanent radon mitigation systems have been installed, these systems should be functioning during the measurement period.

-Air conditioning systems that recycle interior air can be operated during the closed-building conditions.