

# Corentium Home

DIGITAL RADON DETECTOR

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## Frequently Asked Questions

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## 1. Where should I place the monitor for best results?

First, never place the monitor outdoors or in conditions with over 85% humidity - this can cause permanent damage to the radon sensor inside.

You can use Corentium Home in any room indoors where you want to test for radon. Since radon enters the home through the building's foundation, we recommend placing it in your basement or lowest floor. If levels are safe there, they are likely safe elsewhere in the home.

For best results, avoid placing it within 3 ft / 90 cm of vents, fans, windows or doors - sources of ventilation that can skew the readings. It's also a good idea to place the device in the room near to where people spend time and at an average breathing height - and never higher than 6 ft (182cm). You can lay it on a surface or use the screw hole on the back of the unit to mount it on a wall.

## 2. What do the measurements on the screen actually tell me?

Corentium Home displays three separate values on its screen. Let's explain from when you first begin using the device.

- During the first 24 hours, your device takes hourly radon measurements from the air samples it draws in, but there are no on-screen values displayed yet.
- After the first 24 hours, it will display the first values.
  - One is a short-term average - the 24-hour rolling average of the 24 most recent measurements taken. This updates every hour when the latest measurement is added to the average and the oldest one left out.
  - The other value that appears is the long-term average. This is simply an all-time average of all measurements taken. Eventually, this will be the best reckoning of your exposure to radon and therefore, the level of risk it poses to your health. But after one day, it's only based on a very short time period.
- After day 7, you will begin to see a second short-term average: the 7-day rolling average. This value is an average of the measurements taken over the last 7 days. It updates once a day so that it only includes the measurements of the last 7 days.

*So, how should you use these different average values?*

As mentioned, the long-term average is an all-time average of all measurements ever taken. After just a few days, it's not really a long-term average yet - we recommend you wait at least 30 days to let this value guide your decision on if you need to take action to address radon in your home. The longer the device measures in the same location, the more accurate the long-term level becomes.

The short-term averages can be used to understand the daily and weekly fluctuations that naturally occur with radon. You may also use the 1 day average to evaluate the effectiveness of radon mitigation actions you are taking.

## 3. How does Corentium Home measure radon?

Corentium Home contains an Airthings patented radon sensor, which utilizes a passive diffusion chamber and alpha spectrometry to monitor radon levels. Every 60 minutes, it counts the number of alpha particles, created during the natural decay of radon, it detects inside of its chamber

The amount of radon in an indoor environment is not fixed; in fact it can vary significantly from day to day and month to month. This is why the radon measurements are always expressed as averages of the samples taken over a time period - like 24 hours, 7 days, or long-term... you get the idea. For Corentium Home the "Long-term" radon level is an average of all radon readings since it began measuring. In other words, long-term is an "all time" average.

Keep in mind that the 24h radon level is a *rolling (or moving) average*. This means that this level is an average of only the 24 most recent hourly samples and only updates once per hour.

## 4. Corentium Home is reporting a radon level over 4 pCi/L (or 150 Bq/m<sup>3</sup>). Is my health in danger? What should I do?

The health risk associated with radon is the combination of *exposure to elevated radon levels (over 4 pCi/L) over a long period of time*. Elevated radon levels are cause for action, not panic. If, after a month of monitoring, your short and long-term average radon levels are consistently over 4, it's time to take steps to bring levels down.

First, increase ventilation by opening windows and doors, allowing the radon to dissipate with outdoor air. Then check your home's foundation thoroughly for cracks or other openings where radon might be entering from the earth below and around it. Seal any cracks or openings.

A full day after you have taken these actions, check your 24h average radon level to see if they've worked. Keep an eye on the 24h average over the next several days to determine if the effects are lasting or if radon begins to increase again.

If levels remain elevated after you've sealed any cracks in the foundation, contact a local radon professional. They will inspect your home and offer you solutions to address the radon problem and bring levels down.

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## 5. I just fully aired out my basement but the monitor is telling me that radon levels have barely changed. What's going on?

The 24h radon level is a *rolling average* that takes into account the 24 most recent hourly samples. Because of this, it won't reflect the full impact of actions taken until 24 hours after they've been carried out.

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## 6. How does Corentium Home compare to the radon test kits that the EPA recommends?

First, it's important to explain that indoor radon levels change, often unpredictably, from week to week and month to month. Ventilation, weather, air pressure, and seasonality combine to make radon levels rise or fall.

Most radon test kits are designed to be placed in your home for a period of just a few days, then sent to a lab where the contents are analyzed and a report is issued. These kits give you an "snapshot" of the level of radon during the days the kits were in your home.

So why do we believe that's not good enough? Because to really understand your exposure to radon, and the possible health risk, you need to know the average amount of radon over the long-term - we're talking many months, even years. Corentium Home is designed to work continuously for years, maintaining a long-term average radon level you can trust.

If you discover that you have high levels of radon, you can take action. From small steps like manually ventilating when you see radon levels increasing, to big steps like installing a radon mitigation system. Even with a system installed, Corentium Home keeps working for you - telling you if the system is working properly, or alerting you to increasing radon levels in the case the system fails. We think of the short-term test kits as screeners and continuous digital monitoring as a means of thorough testing.

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## 7. Will I have accurate measurements from day 1?

The short answer is no. We actually recommend waiting out at least the first 30 days of monitoring before deciding if you need to take action against radon in your home.

*Why?* Because the danger posed by radon is based on exposure to elevated levels over a very long time (many years). This is what can cause lung cancer. Because radon levels fluctuate naturally over weeks and months, a measurement taken for a single day is of very limited value. The most accurate reckoning of your radon exposure is a long-term average radon level - something that can only be achieved over time.

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## 8. Is it portable? Can I move it to another room or another building?

Yes, you sure can. However, to understand your home's exposure to radon, we recommend leaving the monitor in the same location for 1-3 months. This is because radon levels can fluctuate radically over time - principally due to changes in ventilation and weather. Once you feel you understand the average radon levels where you have been measuring, you can move the monitor to another room in your home or to another house entirely.

When you move your monitor, you should start a new measurement history. This will delete the device's memory so you start fresh in the new location. To do this, press and hold the RESET button on the back of the unit. Remember, it's starting over so it will take about 1 month in the new location before you can begin to consider the long-term average value as actionable.

*Pro tip:* Before you reset the unit, note down the readings from the previous location, or generate the online report. This way you have some history to refer back to should you need it.

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## 9. Can I generate a report that contains my radon level?

Yes. Airthings gives you a way to generate a formatted report that not only includes your current long-term radon average, but also your device serial number, the sensor technology used and the number of days you have been monitoring continuously.

This report is not officially recognized by any official organization but can be helpful when you want to share your location's radon history with a 3rd party.

You will only be able to generate this report if you have been monitoring continuously for at least 30 days. Go to [www.airthings.com/report](http://www.airthings.com/report) to learn more.

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## 10. Am I eligible for the free 5-year extended warranty?

There are only three conditions we require for you to register your Airthings monitor for the 5-year extended warranty.

You must:

- Purchase your monitor from an **authorized reseller**. Amazon is an authorized reseller. However, there are 3rd party sellers active in the Amazon marketplace who are not Airthings authorized resellers. If you want to register for the warranty, pay special attention during the purchase process to ensure it is "Sold by" Amazon.
- Register on [airthings.com/register](http://airthings.com/register) within 30 days of purchase.
- Retain your proof-of-purchase. It's best to simply upload your receipt when you register for the 5-year extended warranty.

If you experience any hardware defects during the warranty period, you need only email [support@airthings.com](mailto:support@airthings.com) to report the problem.

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