



TRINITY  
school of natural health

# Avoiding Harmful Radiation

in Everyday Life

BY TRINITY SCHOOL OF NATURAL HEALTH

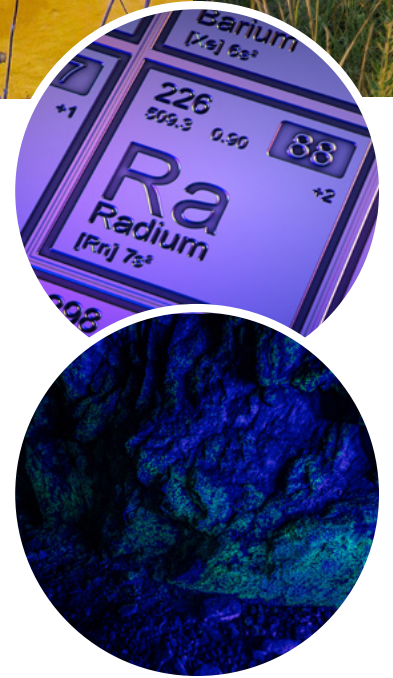
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## Where is Radiation Found?

When you think of radiation, you may picture explosions or mutations from sci-fi movies and TV shows. However, sources of radiation may be more commonplace than you think. Radioactive material can be found in almost everything we encounter, both in nature and manufactured products. Radiation exists in the air, in food and water, in the soil you walk on, and in many consumer products in your home.<sup>1</sup>

### COMMON SOURCES OF RADIATION EXPOSURE

While all radiation exposure causes some risk, the range of that risk is very wide.<sup>2</sup> Most radioactive materials in your home and everyday life contain very little radiation, posing no significant threat, but being mindful of your contact with such materials can benefit your health. Always seek the advice of a healthcare professional if you suspect or are concerned about exposure to radiation.

## Here are seven common sources of radiation exposure:

### 1. Radon

Radon is a radioactive gas that you can't see or smell, but it may be in your home. The uranium in soil or rock breaks down to form radium and then turns into radon gas. From there, radon can enter a home through cracks in walls, basement floors, foundations, and other openings.<sup>3</sup> It can also be present in construction materials.<sup>4</sup>

Nearly one out of every 15 houses in the U.S. is estimated to have elevated radon levels, which is the second-leading cause of lung cancer after smoking.<sup>5</sup> If you have concerns regarding radon exposure in your home, you can purchase radon test kits at many retail stores or hire a professional to evaluate your house.

### 2. Television

Did your mother ever tell you not to sit too close to the TV when you were younger? Within the cathode ray tubes found in older, box-shaped televisions, low levels of x-ray radiation can potentially emit from the screen. If you have this type of TV, experts advise sitting at least 2 to 3 feet from the screen to limit exposure.<sup>6</sup> This threat does not include flat-screen TVs and computers that most people use today. Since they don't have cathode ray tubes, these items do not emit x-ray radiation.<sup>7</sup>







### 3. Fertilizers

Most commercial fertilizers contain phosphorous, an essential nutrient for plants. During the processing of phosphate rock to phosphate-based fertilizer, traces of radium are commonly left in the product. While the radiation level can vary among blends and rock origins, it can be found in both the fertilizer and the vegetables grown in it.<sup>8</sup> Additionally, fertilizers provide varying levels of potassium, which is naturally radioactive.<sup>9</sup>

### 4. Clocks and Watches

While modern watches and clocks have light sources that contain little to no radiation, older pieces can contain higher concentrations of radioactive material.<sup>10</sup> For decades, watches and clocks contained paint with radium, a highly radioactive substance, to illuminate the dials and hands. This common practice ended in the 1970s.<sup>11</sup>

If you want to borrow your grandpa's old watch, make sure to use caution. When you open these older timepieces and handle the dial or hands without gloves or other protective equipment, some of the radium could be picked up or ingested.<sup>12</sup>

### 5. Cigarette Smoke

You probably know that cigarette smoking is associated with a wide variety of health risks. But did you know that certain fertilizers can pass radioactive minerals like radium, lead, and polonium into tobacco plants? Because of this, both regular smokers and those inhaling second-hand smoke are vulnerable to the radioactive material.<sup>13</sup>

Smokers inhale small amounts of this radioactive matter each time they take a puff, both from the fertilizer used on the tobacco plants and from other sources of radiation. In addition, tar from tobacco smoke builds up in their lung passages and can trap some of these materials, specifically lead-210 and polonium-210.<sup>14</sup>

### 6. Glass

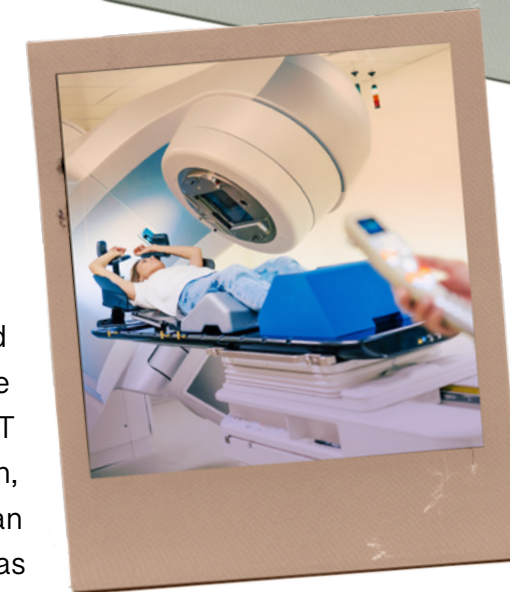
Many glassware products, especially antique glassware with a yellow or greenish color, can contain easily detectable quantities of uranium. Often referred to as canary or Vaseline glass, this uranium-carrying glassware is prized by collectors because of the luminous glow produced when the glass is exposed to a black light.<sup>15</sup> If you are looking to purchase antique glassware, a black light is a simple way to test whether the glass has significant amounts of radioactivity within it.

Outside of antique glassware, ordinary glass has been known to contain clearly detectable levels of potassium-40 or thorium-232, and older camera lenses often employed coatings of thorium-232 to alter the index of refraction.<sup>16</sup>

### 7. Medical Imaging

You may be familiar with the large radiation machines used in medical practice, whether from personal experience or a medical TV show. Nuclear imaging exams like CT scans, x-rays, and other similar scans use ionizing radiation, which means particles from a high-energy wavelength can penetrate the tissue. The particles send radiation beams as data to reveal the body's structure and internal organs.<sup>17</sup>

Unfortunately, this kind of ionizing radiation can harm the human body and break down DNA structure. Your body's cells are programmed to repair this kind of damage, but sometimes these repairs are done incorrectly, which may lead to DNA mutation—the building blocks for cancer.<sup>18</sup> Though the dangers of medical imaging are apparent, the benefits outweigh the risks in many cases, as the diagnosis and treatment of diseases have saved countless lives.





## Conclusion **Avoiding Harmful Radiation in Everyday Life**

Radiation can be found in nearly every area of life. However, the use of radiation and nuclear techniques in medicine, industrial manufacturing, agriculture, energy, and other scientific and technological fields has brought significant benefits to society, such as its invaluable role in treating cancer.<sup>19</sup> Ultimately, being mindful of the radioactive material in your everyday life and limiting your exposure can help you avoid negative health consequences.

At Trinity School of Natural Health, we teach you how to maximize your wellness, adopt a healthier lifestyle, and equip others to be healthy too. Enroll in our Certified Natural Health Professional program today by calling 800-428-0408, option 2, or visit our website to learn more at [trinityschool.org/program/cnhp](http://trinityschool.org/program/cnhp).

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