

# Baritz Wellness Center, P.C.

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## Radiation and Health

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### Environmental Protection Agency (EPA)<sup>1</sup>

Radioactive materials that decay spontaneously produce ionizing radiation<sup>2</sup>, which has sufficient energy to strip away electrons from atoms or to break some chemical bonds. Any living tissue in the human body can be damaged by ionizing radiation in a unique manner. The body attempts to repair the damage, but sometimes the damage is of a nature that cannot be repaired or it is too severe or widespread to be repaired. Also mistakes made in the natural repair process can lead to cancerous cells.

The chemical properties of a radionuclide<sup>3</sup> can determine where health effects occur. To function properly many organs require certain elements. They cannot distinguish between radioactive and non-radioactive forms of the element and accumulate one as quickly as the other.

- Radioactive iodine concentrates in the thyroid. The thyroid needs iodine to function normally, and cannot tell the difference between stable and radioactive isotopes<sup>4</sup>. As a result, radioactive iodine contributes to thyroid cancer more than other types of cancer.
- Calcium, strontium-90 and radium-226 have similar chemical properties. The result is that strontium and radium in the body tend to collect in calcium rich areas, such as bones and teeth. They contribute to bone cancer.

### Potassium iodide pills

Potassium iodide pills are sometimes recommended in the event of severe exposures such as nuclear plant leaks or other nuclear disaster. These pills saturate the thyroid gland with iodine to block the uptake of radioactive iodine, and are very effective in preventing thyroid cancer; however they do not provide similar protection for other effects of radiation. Potassium iodide pills can produce harmful side effects and are not recommended unless specifically advised by government health officials. In the event of a nuclear disaster it is important to listen to government health officials to find out the severity of the radiation leak and to see how much might actually reach your area.

### For medical tests and scans

For CT scans and for medical tests that use injected radioisotope tracers, start one to two weeks before testing and continue for 30 days after the test.

<b>Calcium Lactate</b> <sup>5</sup>	20/day	To help prevent radiation being taken up in the bones.
<b>Prolamine Iodine</b> <sup>5</sup>	3/day	A healthy form of iodine for the thyroid.
<b>Vitanox</b> <sup>6</sup>	4/day	Potent anti-oxidant, to address the increased risk of cellular and DNA damage.

### Exposures due to nuclear disasters

For exposure due to disasters such as nuclear plant leaks, take as soon as possible & continue for 30 days after exposure.

<b>Calcium Lactate</b> <sup>5</sup>	20/day	To help prevent radiation being taken up in the bones.
<b>Prolamine Iodine</b> <sup>5</sup>	3/day	A healthy form of iodine for the thyroid.
<b>Vitanox</b> <sup>6</sup>	4/day	Potent anti-oxidant, to address the increased risk of cellular and DNA damage.

### Radiotherapy

Exposures due to radiotherapy are handled with a specialized protocol; see Health Tip, *Cancer the Program (Part 1)*.

**To have a custom program created for you or for a free consult call 508 583-2565**

**\*\*To view this and other health tips go to [www.baritzwellness.com](http://www.baritzwellness.com) and select the Health Tips tab\*\***

1. United States Environmental Protection Agency [www.epa.gov/radiation/understand/health\\_effects.html](http://www.epa.gov/radiation/understand/health_effects.html)

2. Ionizing Radiation: radiation that has sufficient energy to strip electrons from atoms or break some chemical bonds.

3. Radionuclide: a type of atom that emits radiation. 4. Isotope: slight variations in atoms with very similar properties.

5. Standard Process Products for more info: [www.standardprocess.com/display/sponlinecatalog.spi](http://www.standardprocess.com/display/sponlinecatalog.spi)

6. MediHerb products [www.standardprocess.com/display/mhonlinecatalog.spi](http://www.standardprocess.com/display/mhonlinecatalog.spi). Before taking herbs advise Dr. Baritz if you are ill, pregnant, lactating or take meds.

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