

How to Protect Yourself from Radiation

by blog admin via reed - Washington's Blog *Friday, Mar 18 2011, 11:04pm*
international / health related / other press

(short answer -- decommission all nuclear reactors, but ...)

This is written for the millions of people around the world who are worried about radiation from the Japanese nuclear reactors. For those who are not worried about radiation from Japan, you can ignore this post, or save it for any future radiation scares closer to home.



It is true that potassium iodide protects against high doses of a certain type of radiation. As the New York Times [notes](#):

Fortunately, an easy form of protection is potassium iodide, a simple compound typically added to table salt to prevent goiter and a form of mental retardation caused by a dietary lack of iodine.

If ingested promptly after a nuclear accident, potassium iodide, in concentrated form, can help reduce the dose of radiation to the thyroid and thus the risk of cancer. In the United States, the Nuclear Regulatory Commission recommends that people living within a 10-mile emergency planning zone around a nuclear plant have access to potassium iodide tablets.

Indeed, virtually all suppliers of potassium iodide have sold out, especially after , [the U.S. Surgeon General recommended that West Coast residents stock up](#).

But as I [noted](#) yesterday:

Keep in mind that iodide only protects against **one particular radioactive element**: radioactive iodine, technically known as iodine-131. Iodine-131 has a half life of only [8.02 days](#). That means that the iodine loses half of its radioactivity within 8 days.

The government hasn't stockpiled much potassium iodide. As the New York Times [notes](#):

Congress passed legislation in 2002 requiring the federal government to supply potassium iodide capsules to people living within 20 miles of nuclear power plants in the United States.

But the administrations of George W. Bush and Barack Obama have not implemented that provision, saying the law allows for alternatives.

Some states have given pills to people living within 10 miles of nuclear plants, or stockpiled the pills for those people.

But given that the government says that only minute amounts of radiation will hit the United States, and given that iodine-131 has such a short half-life, the whole issue may be moot (many, however, do not trust the government's assurances. See [this](#) and [this](#)). And taking high doses of potassium iodide can be harmful, especially for people with certain pre-existing medical conditions. So talk to your doctor before taking any.

Other Radiation Dangers

While iodine-131 poisoning can be prevented with potassium iodide, there are no silver bullets for other radioactive isotopes.

As I pointed out yesterday:

The New York Times [noted](#) last week that - in addition to iodine-131, the big danger is cesium:

Over the long term, the big threat to human health is cesium-137, which has a half-life of 30 years.

At that rate of disintegration, John Emsley wrote in "Nature's Building Blocks" (Oxford, 2001), "it takes over 200 years to reduce it to 1 percent of its former level."

It is cesium-137 that still contaminates much of the land in Ukraine around the Chernobyl reactor.

Cesium-137 mixes easily with water and is chemically similar to potassium. It thus mimics how potassium gets metabolized in the body and can enter through many foods, including milk.

The Environmental Protection Agency says that ... once dispersed in the environment ... cesium-137 "is impossible to avoid."

Cesium-137 is light enough to be [carried by the wind a substantial distance](#).

There is no surefire prevention for cesium-137. As the EPA [notes](#) in a discussion entitled "What can I do to protect myself and my family from cesium-137?":

Cesium-137 that is dispersed in the environment, like that from atmospheric testing, is impossible to avoid.

Neither the EPA - nor any other government agency - gives advice on how to minimize the danger from cesium-137 poisoning. Some have theorized about

So does that mean that we're sitting ducks?

Well, the fact that there is no silver bullet (although some have [theorized](#) about potential approaches) does not mean that there is nothing we can do.

Some Foods and Herbs May Help

Many foods and herbs have shown efficacy in helping to protect against radiation poisoning. Indeed, antioxidants in general have been found by some studies to [reduce the consequences of radiation exposure](#).

A leading alternative health authority - Dr. Andrew Weil, a medical doctor who runs the Center for Integrative Medicine at the University of Arizona - [writes](#) today in response to the question of how to protect ourselves against radiation:

I discussed other preventive strategies with Tieraona Low Dog, M.D., director of The Fellowship at the Arizona Center for Integrative Medicine and an expert on botanical health. She said that there is reason to believe that taking two to four grams of **curcumin, the active compound in turmeric**, can help protect a number of body tissues. In addition, **reishi and cordyceps mushrooms** can protect bone marrow from toxic assaults, and antioxidants can help the body defend itself from radiation damage. Since radioactive particles may be carried by dust, having a HEPA filter in your home would also be a good idea in the event of a nuclear accident that is close enough to be of concern.

Dr. [Tieraona Low Dog](#) is a medical doctor who has impressive credentials in herbal medicine, and who has been tapped to fill a number of health related posts in government.

Retired neurosurgeon Dr. Russell Blaylock - on the editorial staff of the Journal of American Physicians and Surgeons - also [recommends](#) foods and herbs to help protect us from radiation:

“Most of the health risks are not going to be due to acute radiation poisoning,” he tells Newsmax. “It’s going to be a risk of increased cancer.” ...

If radiation does arrive in the United States, people would need “to change their diet. They need to stop eating Western farm products,” Blaylock says. ...

Among the supplements he cited, iodine can protect the thyroid gland if taken before the exposure to radiation.

Ginkgo biloba can be protective even after exposure to radiation. **Beta-glucan** protects the bone marrow. **Curcumin** also can offer protection after exposure, particularly against breast cancer. He also suggests **garlic extract, ginger, melatonin, and magnesium**. ...

We understand if all of this sounds a bit flakey, crunchy, woo-woo and hippy-ish.

And none of these are 100% effective even against low doses of radiation.

But there are actually numerous scientific studies backing up the ability of some foods and herbs to help protect us from radiation. Admittedly, some scientific studies are good studies and some are of worthless quality. But the rest of this post will round up some of the scientific literature for your review.

As the Journal of Clinical Biochemical Nutrition

[noted](#)

in 2007:

The results obtained from *in vitro* and *in vivo* studies indicate that several botanicals such as *Ginkgo biloba*, *Centella asiatica*, *Hippophae rhamnoides*, *Ocimum sanctum*, *Panax ginseng*, *Podophyllum hexandrum*, *Amaranthus paniculatus*, *Embllica officinalis*, *Phyllanthus amarus*, *Piper longum*, *Tinospora cordifoila*, *Mentha arvensis*, *Mentha piperita*, *Syzygium cumini*, *Zingiber officinale*, *Ageratum conyzoides*, *Aegle marmelos* and *Aphanamixis polystachya* protect against radiation-induced lethality, lipid peroxidation and DNA damage.

Many inexpensive foods have protective properties against radiation, including:

- [Garlic](#) (one Indian tribe living in the desert of Nevada used to eat bulbs of raw garlic to help protect against radiation from the above-ground nuclear tests)
- [Foods rich in beta-carotene](#)
- [Ginger](#)
- [Curcurim](#) (and see [this](#)) - the active ingredient in turmeric which, in turn, is in yellow curry (available in Indian and Thai dishes).
- Many types of seaweed (see [this](#), [this](#) and [this](#))
- [Miso](#) (when it has been "long-fermented", instead of fermented for a shorter time)

Many herbs and supplements available at health food stores and drugstores pharmacies have protective properties against radiation, including:

- [Vitamin D3](#)
- Vitamin E (see [this](#) and [this](#); the natural form is probably much healthier for you than the synthetic form)
- Panax Ginseng, a traditional "[adaptogen](#)" in Chinese medicine (see [this](#) and [this](#))
- [American Ginseng](#) (indeed, [one study](#) apparently found American Ginseng helped prevent damage from cesium-137)
- [Rhodiola](#), an adaptogen
- [Holy basil](#) (and see [this](#); also called tulasi; this is the top herb in traditional Ayurvedic - i.e. Indian - medicine)
- Chlorella, a blue-green algae (see [this](#) and [this](#))
- [Spirulina](#), a blue-green algae available at health food stores

- [Ginko bilboa](#)
- [Tomato extract](#) (Lycopersicon)
- [Reishi mushrooms](#) (and see [this](#))
- [Cordyceps mushroom](#) (and see [this](#))
- [Magnesium pemoline](#)
- [Sesamol](#) (an extract from sesame seeds)
- [Melatonin](#) applied to the skin
- [Thiol](#) family of antioxidants, such as N-acetyl cysteine, glutathione and thioproline
- [Beta-glucan](#) (a yeast derivative)

And many herbs commonly available in some parts of the world have protective properties against radiation, including:

- [Aloe arborescens](#) (commonly known as "Krantz Aloe", a lesser-known member of the aloe family)
- [Nigella sativa](#)
- [Centella asiatica](#)
- [Tinospora cordifolia](#) (known as "guduchi")
- [Emblica](#)

Note: Just because herbs are "natural" does not mean that they can be swallowed in large doses without side effects. Herbs can have powerful effects, just like medicine. As such, you should treat them with respect and study proper dosage and potential side effects before taking them.

Disclaimer: I am not a doctor or a health professional, and this should not be taken as medical advice. Nothing contained herein is intended to diagnose or treat any condition. You should consult your doctor before making any decisions about whether or not to take any of the foods, herbs, supplements or substances mentioned herein.

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<http://www.washingtonsblog.com/2011/03/how-to-protect-yourself-from-radiation.html>

Cleaves Alternative News. <http://cleaves.lingama.net/news/story-2395.html>