



RAPT

Radiation Awareness Protection Talk

Just Because Radiation's Invisible Doesn't Mean it Can't Harm Your Health!

www.RAPTawareness.com

Attention: Concerned Parents, Grandparents, People Living on the West Coast

SPECIAL REPORT:

**The #1 Way to Protect You and Your Loved Ones
from the Health Risks from Fukushima and Nuclear Reactors...
and
the 7 Most Dangerous Misconceptions that Put You and Your Family At Risk**

- Are you concerned about the radiation impact of the Fukushima nuclear disaster on your food, water, air? If not, you should be.
- What about that nuclear reactor down the road, or even 50 miles away? Are you concerned about how it may be contributing to local rates of cancer, birth defects, miscarriages, heart disease?
- What about your children and their genetic future – is it really safe to raise small kids if you live near a nuclear reactor? Are ongoing radiation releases from Fukushima affecting their food, milk and water?
- Or are you convinced that the "experts" are really right, that nuclear reactors are really "clean, green, safe and sustainable?"

If you're like most people, you don't think about nuclear radiation very much, if at all. If you do, you probably carry some misconceptions about its impact on human health. You do know that too many CAT scans are risky, and x-rays aren't allowed for pregnant women. More women are asking for thyroid shields during mammograms. Any form of radiation can be dangerous, but very few people talk about how radiation from nuclear power plants and accidents.

**You deserve to know the truth about how nuclear radiation impacts your health...
and what you can do about it.**

That's what this Special Report will address – not only the problems we face but some simple, cost-effective solutions you can easily and inexpensively implement in your life to minimize the impact of radiation.

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Who We Are

It's always important to understand the source of your information so you can make an informed decision about whether you want to trust what they say. So we want you to know that this report comes from a journalist/researcher and a nutritionist who is also the mother of a small child. We have teamed up to put together this report to clarify some common misunderstandings about the dangers of nuclear radiation – as well as show you how to gain the power you need to protect yourself and your loved ones.

Libbe HaLevy is a journalist and researcher who was one mile from the nuclear meltdown at Three Mile Island when it happened. A veteran media professional, she has worked for WGN in Chicago, WGBH in Boston, Twentieth Century Fox Studios, the Fox Network, and many other broadcast outlets. Her writing has appeared in the LA Times, Boston Globe, Village Voice, LA Weekly and dozens of other publications. She currently is Producer and Host of Nuclear Hotseat, a weekly international news magazine on all things anti-nuclear, now in its fourth year. For Nuclear Hotseat, she has interviewed nuclear researchers, doctors, epidemiologists, nutritionists and international experts on every aspect of the nuclear issue. Libbe authored the nuclear memoir, *Yes, I Glow in the Dark! One Mile from Three Mile Island to Fukushima and Beyond*, available as an ebook on Amazon.com. She continues to work as a life and business coach for clients who have ranged from stage and screen legend Julie Andrews to small business owners to survivors of childhood sexual abuse.

Kimberly Roberson worked in the fields of environmental activism and holistic nutrition education before becoming a mother. From early in her career, she worked on anti-nuclear and other social justice campaigns at Sane/Freeze, CALPIRG and Greenpeace in Washington DC, Los Angeles and San Francisco; learned about natural health and organic food while living and working on a community farm in Bolinas, California; studied holistic nutrition at Bauman College; and then owned New Health Design in San Rafael and San Francisco. Kimberly's passion for natural health led her to serve on the board of the National Association of Nutrition Professionals; she was also the founding vice-president for their California chapter. Kimberly has lobbied for environmental and natural health issues on the state and federal level in Sacramento and Washington, DC, and at the Food and Drug Administration in Maryland. After Fukushima erupted she wrote a petition calling for radiation monitoring of food, milk and water, which led to the formation of the Fukushima Fallout Awareness Network (FFAN). *Silence Deafening, Fukushima Fallout ... A Mother's Response* is her first book.

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Both of us are committed to covering the nuclear issue and giving people the best information available so they we can all defend ourselves and our loved ones against the genuine dangers of exposure to nuclear radiation. That's the information we want to share with you.

Knowledge is Power... so Keep Reading!

What We Learned about Radiation Exposure during the Cold War

The dangers of nuclear radiation have been documented for almost 70 years: from the awful destructive power of the atom bombs dropped on Hiroshima and Nagasaki to atmospheric bomb tests that spread radioactive fallout around the globe (and into children's baby teeth) to the radiation releases from nuclear reactor accidents at Three Mile Island, Chernobyl, Fukushima and more.

During the Cold War, Americans were taught genuine, frightening facts about radiation's impact – perhaps in part because the risk came from our arch-enemies, the Russians, and it was okay to be afraid of them. We learned that the greatest danger we faced wasn't from the impact of an atomic blast – which would be horrific enough – but from radioactive fallout afterwards that would poison the air, water, food, create horrible birth defects and destroy life as we knew it.

This early understanding of nuclear radiation's dangers proved quite an emotional burden during the Cold War, usually discussed openly only in high school science classes, science fiction novels or Godzilla movies.

Then years passed, times changed, and along the way we stopped thinking about all things nuclear... except when a reactor accident panicked us all over again. But we didn't stay panicked. Radiation can't be seen, smelled, tasted, heard or felt. Its impact on health can take years, even decades to show up. With everything else going on in our lives, how can we be bothered to worry about something that's invisible with no immediate, visible consequences?

Except we do need to be bothered by this information, so that we can take steps to protect our health now instead of looking back on this time and regretting not taking steps while we still could.

So here are the 7 Dangerous Misconceptions about the Health Dangers of Nuclear Radiation:

1. Low Level Radiation Exposure Isn't Dangerous... Is It?

Actually, low level radiation is just as dangerous or even more dangerous¹ than high level radiation – and that's according to the U.S. government's own conclusions published in "The Biological Effects of Ionizing Radiation," or BIER VII Report². ("Ionizing radiation" is another term for nuclear radiation.³) This report concluded that there is no

¹ <http://www.washingtonsblog.com/2012/05/report-low-doses-of-radiation-can-cause-more-damage-than-high-doses.html>

² http://www.dep.state.pa.us/brp/radon_division/BEIR%20VII%20Preliminary%20Report.pdf

³ By the way, there are two major kinds of radiation: non-ionizing and ionizing. It's kind of long to explain the differences, but if you want, you can get an idea here: <http://www.sciences360.com/index.php/difference-between-ionizing-and-non-ionizing-radiation-6001/>. This Special Report focuses on the impact of nuclear – ionizing – radiation.

dose of ionizing radiation below which it is safe to be exposed. The only "safe" exposure to nuclear radiation is zero.

BEIR VII also stated that radiation exposure is **cumulative over one's lifetime**, and several low level exposures hit us the same as a single major exposure. It makes no difference to our DNA if we get one large dose or in lots of small doses from sources which may include leftover bomb test fallout, dental x-rays, radionuclides in food or the radium dial on your prized antique watch. Every exposure to radiation counts when it comes to your body's long term health. That's why you need to guard against it.

2. **If my hair's not falling out and I don't have radiation burns, it's no big deal.**

Actually, it's all a big deal. The health impact of radiation exposure take time to show up, so we don't usually make the connection, but some of the health risks include:

- cancer
- birth defects
- miscarriages
- lowered sperm count
- infertility
- heart attacks
- auto-immune diseases
- diabetes

The United States military – generally conservative in its health assessments – recognizes exposure to ionizing radiation as a source of cancers of the bile ducts, bone, brain, breast, colon, esophagus, gall bladder, liver, lung, pancreas, pharynx, ovary, salivary gland, small intestine, stomach, thyroid, and urinary tract (kidney/renal, pelvis, urinary bladder, and urethra), as well as leukemia and lymphomas (except Hodgkin's disease)⁴.

There's more, but this gives you an idea of the extensive range of radiation's health consequences.

Admittedly, unless one is hit by a catastrophic dose of radiation, it may take years for the effects of exposure to make themselves known. For example, thyroid cancer and leukemia, the first cancers to appear, usually don't show up until three to five years after exposure. Hard tumors usually require 12-15 years to first show up and can happen any time after that. The length of time it takes for the effects to be revealed and you to become ill depends upon the size of the dose, whether it was external or internal to your body, your genetics, general level of health, diet, and how well you take care of yourself. With such a great time span between cause and effect, it's easy for pro-nuclear interests to deny there's any connection.

⁴ <http://www.publichealth.va.gov/exposures/radiation/diseases.asp>

But there is a definite, proven link between radiation exposure and the breakdown in your health. Even the U.S. government and our military acknowledge severe risks to life and health created by exposure to radiation. Radiation may be invisible and its effects may take so long to show up that we lose the connection between cause and effect, but it's there... and it can be deadly.

3. If there's a nuclear accident nearby and I'm exposed to radiation, all I have to do is take Potassium Iodide pills and I'll be fine.

Not exactly. A fresh radiological accident at a nuclear reactor releases Iodine 131, which has a half-life of eight days. Sounds like the problem's over pretty fast, doesn't it? But "half-life" means how long it takes for Iodine 131 to become HALF as deadly as it was to begin with; there's still half the initial amount left, which needs to decay through ten successive half-life cycles to become harmless. That means there is radioactivity from Iodine 131 in the atmosphere for a total of 80 days (half-life of eight days x 10 half-life cycles) before it goes flat.

Potassium iodide has its uses and belongs with your emergency supplies, though it will not take care of all your problems. Iodine 131 targets the thyroid gland. If any of this isotope is taken up into the thyroid, over time you will likely develop nodules, cysts and, ultimately, thyroid cancer. Potassium Iodide, if taken at the first sign of a nuclear accident, will fill up your thyroid and block intake of radioactive Iodine 131.

BUT: When there is an accident at a nuclear power facility, **Iodine 131 is not the only radioisotope released.** There's Cesium, Plutonium, Americium and more. Potassium Iodide provides absolutely no protection against these isotopes, which target your heart, bones, teeth and internal organs. Potassium iodide provides no protection against these radioactive isotopes.

You may not even need Potassium Iodide if your thyroid is already full of non-radioactive iodine from natural sources. That's because there's no room left for it to absorb the radioactive kind. Regular supplementation with iodine may be a better solution for you. (NOTE: There are some potential health risks and thyroid issues associated with taking Potassium Iodide or natural iodine supplements, especially if you have a shellfish allergy. Always get your primary health care provider's approval before starting to take any supplement or medication.)

4. The United States has such high standards of food safety, I don't have to worry about radiation contamination in my food.

Actually, when it comes to protecting its residents from the impact of nuclear radiation, the United States does not get good grades. In fact, as hard as this may be to believe, the U.S. has no system in place that regularly tests our food, water or air for radiation

dangers and has the highest allowable recommendations for radiation in food in the world!

The U.S. allows 12 times more radiation in food than is legal in Japan – 1,200 Bequerels per kilogram (Bq/k) of food vs. Japan's 100 Bq/k. (Bequerels is a unit of measurement of radiation.)

What does this mean? Food that is so radioactive it is illegal to sell in Japan is perfectly legal to export to the United States, where it can be sold directly to consumers or incorporated into processed foods without any warning label. Individual ingredients do not have to be labeled as to country of origin, so without questioning the manufacturer to find out specifics, you have no way to know if your food has possibly been contaminated by radioactive ingredients.

For these reasons, it's prudent to educate yourself as to the risks of radiation to your food, as well as the air and water, and learn the best ways to defend against its devastating impact upon the health of you and your loved ones.

5. As long as I eat organic foods and keep to a healthy diet, I don't need to worry about radiation damaging my health.

Actually, you do. While in general organic is always better than non-organic, **when it comes to radiation, organics are at exactly the same risk as conventionally grown foods.** That's because radioactive fallout makes no distinction between organic and non-organic fields.

Consider this: For 18 months after Fukushima began, the University of California, Berkeley School of Nuclear Engineering tested milk from cows in the San Francisco/Oakland/Bakersfield area. At times, this radiation measured three times higher background radiation and was found in milk both from cows fed organically and those given conventional feed under factory farming conditions.

How could this be? Whether it's from a local nuclear reactor, Fukushima, or left over Cold War radiation coming down from the jet stream, once radiation falls on a field it either lands on the plants or on the ground. Rain or irrigation wash the radionuclides deeper into the topsoil, where it's available for uptake into the plant. If you eat a vegetable, fruit, grain or bean that has taken up a radionuclide, or an animal that has eaten radioactive feed, you've just been exposed to a dose of internal radiation contamination.

If the radionuclide you've swallowed lodges somewhere in the body, it emits its damaging ions "up close and personal" with your internal organs. There's no way to protect yourself against its damage to cells, tissue and genetic material. As a result, over time, you will develop cancer.

So yes, continue to buy and consume organically grown foods, because they will always be higher in nutrients and lower in pollutants than conventionally grown produce or products from conventionally raised animals. But know that since Fukushima, you need to take special measures to clean the food you eat of external radionuclides and detoxify your body from any particles of radiation you may have swallowed.

NOTE: As this Special Report is being published comes official word confirming the existence of radionuclides from Fukushima in west coast groundwater, beef, dairy, fish and vegetation in 2011 and 2012. This information was buried in the April, 2014 Annual Radiological Environmental Operating Report filed by the Diablo Canyon Power Plant in northern California⁵. Except for Iodine 131, which decays flat in 80 days, all radionuclides from Fukushima which contaminated U.S. food and water during those first two years are still present and active in our environment. As these reports are filed by nuclear reactor operators every year, I wouldn't be surprised to learn in 2016 that right now, in 2014, radiation-emitting isotopes are still contaminating our food. It's just that nobody in a position of power and authority on the government or industry side of this issue will admit to the problem existing right now.

6. Even if some samples of Pacific fish are showing small amounts of radiation, I can't possibly give up eating sushi or feeding my kids tuna salad!

You are, of course, at choice as to whether you eat seafood from the Pacific Ocean or not. But realize that Tokyo Electric Power Company (TEPCO), the company that owned and still manages the devastatingly damaged reactors at Fukushima Daiichi, must continually pour water on the reactor cores to keep them cool... only they have no place left to store the contaminated water. TEPCO admits to dumping over 300,000 gallons of radioactive water into the Pacific Ocean *every day* since the Fukushima Daiichi disaster began.

While those in favor of nuclear assure us that the radiation in the Pacific will dilute to where it's not a problem, they are missing a basic fact: radiation does not "dilute," as a chemical poison might. The particles may become smaller and more spread out, but each one remains lethal to human health, capable of penetrating cells and altering our DNA. (Remember, according to our own government's published information, there's no dose below which exposure to nuclear radiation can be considered "safe.")

The danger to our fish comes from a process called bio-accumulation. The first sea creatures to be contaminated by radiation are plankton, tiny organisms that float in the ocean and are at the bottom of the food chain for all marine life. Plankton filter water – including radioactive water -- through their bodies to obtain necessary nutrients. They are then eaten by small fish, which are eaten by larger fish, which are eaten by still larger fish, which take in the full radiation dose from every fish they eat. In this way, larger fish generally show much greater contamination than smaller species.

⁵ <http://pbadupws.nrc.gov/docs/ML1412/ML14127A203.pdf>

First signs of radiation contamination of Pacific seafood were recorded as early as May of 2012, when samples of Bluefin tuna taken off the coast of southern California tested positive for cesium⁶. In January of 2014, a fish market in Seattle paid for private testing of its Alaska salmon stock in order to reassure its customers of its safety. Much to their surprise, two of seven samples tested positive for cesium – radiation traced directly to Fukushima⁷. As testing becomes more common, which is happening north of our national boarder in Canada, more results with bad news keep coming in.

So will eating one serving of sushi or giving your kids one tuna fish sandwich kill them? As long as they don't choke on it, obviously not. The question then becomes: if you know that radiation exposure is cumulative, and that internal exposure is more dangerous than external, and the primary source of internal radiation contamination comes from eating foods that contain radioactive particles – why in the world would you want to expose yourself and those you love to foods that have already been shown to test positive for radiation contamination?

As we said at the beginning, you are, of course, at choice; at least now you know what you are choosing between.

7. I've heard experts say that nuclear energy is really a clean, green solution to global warming and carbon dioxide in the atmosphere, and anyone who doesn't understand that is an alarmist.

Remember that other alarmist – Paul Revere? Sometimes, it's necessary to sound an alarm, no matter how inconvenient it may be.

So here goes -- when you think that nuclear is "clean," "green" and "sustainable," you are showing signs of having fallen for a longstanding, well-funded PR/propaganda campaign waged by the nuclear industry. They've positioned themselves as the "good guys," the heroes in white hats riding in to save us all with an energy source they love to tout it as a "clean, green and carbon-neutral!"

But is nuclear energy really so safe, clean, carbon neutral -- and "green?" Consider just the problem of spent fuel rods, which are the waste produced by every nuclear reactor:

- Nuclear reactor "spent" fuel rods are the waste left over when the rods are no longer able to generate electricity. No matter what the initial fuel used, all contain weapons-grade Plutonium 239, which has a half-life of 24,000 years.
- If you inhale as little as a millionth of a gram of Plutonium 239, it *will* give you cancer.

⁶ <http://enenews.com/breaking-radioactive-bluefin-tuna-caught-off-coast-of-san-diego-the-results-are-unequivocal-fukushima-was-the-source-we-were-frankly-kind-of-startled>

⁷ <http://enenews.com/npr-affiliate-fukushima-cesium-detected-in-alaska-salmon-sample-radioactive-plume-has-already-reached-west-coast-concerned-fishermen-forced-to-pay-for-tests-since-officials-not-doing-it-pe>

- We have no safe place to store the 70,000 metric tons of radioactive nuclear fuel waste we already have and the more than 2,000 additional tons generated by the nuclear industry each year.
- We must keep the deadly contents of these fuel rods safe for a minimum of 24,000 years – five times longer than all of recorded human history.

We ask you: how can this virtually eternal radiation-producing energy source be considered "clean" or "green?" It seems the only thing "sustainable" about nuclear is the crushing amount of radioactive waste it produces, and the threat it poses to health and safety.

In short: for a bit of energy now, we risk polluting the entire future of the human race with nuclear radiation.

That doesn't seem to be a good deal.

What this points to is the reason why **we must all begin, right now, to take steps to protect our health from the dangers posed by the nuclear radiation already in our environment.**

Keep reading to find out what you can do to protect the health of you and your loved ones from the dangers of nuclear radiation.

So What's the #1 Way to Protect the Health of You and Your Loved Ones from Nuclear Radiation?

Here's the key to protecting your health from nuclear radiation: **Learn what you can do... and then do it.**

Knowledge is power. There's no single method to defend against the health problems caused by exposure to nuclear radiation, no one way to protect yourself absolutely from its negative impact. But by learning the many steps you can take and then taking as many actions as you can -- guided by accurate, verifiable, non-hysterical information -- you'll be able to make simple changes in your life that add up to the best possible defense against radiation.

You want to get started? Terrific! But where do you go for the right information? The problem when one searches the Internet for radiation protection information is that there's a wide range of opinions, options, people claiming to be experts who aren't, all of them offering advice put forth as gospel that's often cloaked in hysteria or exaggerations. How's a person to know which source to trust?

That's why we – a nutritionist/mom and a journalist/researcher, both veterans of the anti-nuclear movement – came together to create:

RAPT

Radiation Awareness and Protection Talks

How to Protect Your Health from the Dangers of Nuclear Radiation

What is RAPT? A series of three audio recordings that will give you the best available information on how to defend yourself, your family, your loved ones, even your pets from the negative health impact of nuclear radiation. We vetted the sources, read the footnotes, spoke with manufacturers, did the research and came up with a program that works so well, it's used by many members of the anti-nuclear political community – and we follow it ourselves.

What are some of the things RAPT will help you understand?

- **Which foods to avoid** because they have already been shown to be contaminated by radiation from Fukushima.
- **Which foods to eat** to build your immune system to ward off many of the negative consequences of radiation exposure
- **Which potentially radioactive additives hide in processed foods** that are derived from potentially contaminated sources.
- **Supplements to take** to build your body's strength and ability to fight off the negative impacts of radiation
- **How to detoxify** using both supplements and external treatments – many of which were tested and proved effective in Russia after Chernobyl
- **Water purification methods** to remove radionuclides from the water you drink – a dangerous potential source of internal radiation exposure
- **Air purification** – essential during a rain-out or fresh release of radiation
- **Garden protection** to do what you can to keep radiation out of your homegrown produce
- **Keeping your pets safe** – If you're exposed, they're exposed.
- **Emergency preparedness** – what to do should the dangers become more immediate and too great to be escaped, so you need to shelter in place.
- **Home cleaning techniques** if your environment has been contaminated by radiation.

Many of these protections are easy, inexpensive, and capable of being implemented immediately. Others require some supplies, supplements, and the willingness to institute certain hygiene habits that you'll be able to use for the rest of your life.

All these Tips and Techniques are covered in

RAPT -- Radiation Awareness and Protection Talk

The RAPT program is the result of literally years of experience and research. If you tried to figure out all of what you need to do to protect against radiation, you could spend weeks, months or longer researching articles, books, online links, competing experts –

and sorting through the sources to figure out who you can trust to provide the right information.

Instead, by listening to three one-hour RAPT audios that have been created and vetted by a journalist and a nutritionist/Mom, you'll understand what steps you can take to defend against radiation through diet, supplementation, home cleaning techniques and more.

To learn more and to get the RAPT Program, go to:

www.RAPTawareness.com

You deserve to have the best information possible to know how to protect that health of you and your loved ones from the ongoing dangers of nuclear radiation. Know that we have put our hearts as well as our expertise into creating this Radiation Awareness and Protection Talk Special Report and the RAPT program. May the information you have learned already help you understand the need to take steps to protect your health and the health of those you love from the ongoing dangers of nuclear radiation.

Stay safe, be well,

Libbe HaLevy

Kimberly Roberson

ps: It's easy to fall into denial and not take action on nuclear-related issues because – let's face it – this stuff can be scary. You may decide to put off learning more because you think, "I'll deal with it after Fukushima is over." Here's what you need to understand: **When it comes to the dangers of nuclear radiation, Fukushima will never be "over." There will never be a "post-nuclear" era; it's not going away and we'll have to deal with it from now on.** Remember the half-life of plutonium is 24,000 years, so you might as well call it "forever." When it comes to learning what you can do to defend against its devastating impact on our health, lifespan and even our DNA, **there is no better time to learn more than right now.**

Best not to delay. Take advantage of the opportunity to learn safe, inexpensive ways to protect yourself... while there's time.

To sign up for RAPT, go to:

www.RAPTawareness.com