

<http://www.health-matrix.net/2011/03/19/detoxify-or-die-natural-radiation-protection-therapies-for-coping-with-the-fallout-of-the-fukushima-nuclear-meltdown/>

Proven Effective Detox Protocols

Green stuff and other sea food

In Chernobyl, 5 grams of spirulina for 45 days was used successfully against radiation poisoning. Chlorella algae also has shown radio-protective effects. A study showed that spirulina reduced urine radioactivity levels by 50% after only 20 days and so the Institute of Radiation Safety in Belarus developed a special program to treat 100 children every 20 days with spirulina. Furthermore, the healing occurred during the continuous presence of radiation as well as the presence of radiation contaminated food and water sources. In particular, spirulina given to children with accumulated high doses of radionuclides reduced radioactive cesium. No side effects were registered. Only buy spirulina or chlorella from a certified heavy-metal free source.

Studies on sea vegetables with sodium alginate have shown that they selectively bound with radioactive strontium and eliminated it from the body. Sodium alginate is found in many seaweeds, especially kelp. Sodium alginate binds tightly to such substances as strontium, calcium, barium, cadmium and radium. Some seaweeds are contaminated with lead or arsenic so you only want to consume seaweed that is deep ocean harvested or has been tested to be free of metal toxicity (such as kelp from the west coast of South Africa).

Black and green tea have shown radioprotective effects when taken either before or after exposure to radiation. This anti-radiation effect was observed in several Japanese studies, and studies from China also suggest that the ingredients in tea are radioactive antagonists. Tea catechins are associated with antioxidant properties and can have radio-protective effects when taken both before and after irradiation.

Kelp also has organic iodine which will saturate the thyroid so radioactive iodine will not be absorbed. You can take 1 or 2 tsp or 5 to 10 tablets.

Pectin

Pectin is one of the most effective means of protecting against radiation when consumption of contaminated food becomes unavoidable. Pectin preparations, along with vitamins and minerals, have demonstrated a high efficiency in

eliminating incorporated radionuclides. The recommended dose is 5 grams once or twice a day for one month, 4 times a year.

"In 1999 BELRAD together with "Hermes" Hmbh (Munich, Germany) developed a composition of apple pectin additives known as Vitapect® powder, made up of pectin (concentration 18 - 20%) supplemented with vitamins B1, B2, B6, B12, C, E, beta-carotene, folic acid; the trace elements K, Zn, Fe, and Ca; and flavoring. BELRAD has been producing this food additive, which has been approved by the Belarussian Ministry of Health, since 2000.

"The pectin additive Vitapect with clean nutrition appears to be 50% more effective in decreasing the levels of Cs-137 than clean nutrition alone (Nesterenko et al., 2004).

"A clinical study of 94 children, 7 to 17 years of age, divided into two groups according to their initial level of Cs-137 contamination determined by whole body counting (WBC) and given Vitapect orally for 16 days (5 g twice a day) revealed both a significant decrease in incorporated Cs-137 and marked improvement in their electrocardiograms.

"From 1996 to 2007 a total of more than 160,000 Belarussian children received pectin food additives during 18 to 25 days of treatment (5g twice a day). As a result, levels of Cs-137 in children's organs decreased after each course of pectin additives by an average of 30 to 40%.

"Based on long-term experience, the BELRAD Institute recommends that all children living in radioactive contaminated territories receive a quadruple course of oral pectin food additives annually along with their conventional food ration. Eleven years of BELRAD's activities in controlling levels of incorporated Cs-137 in more than 327,000 children has not caused alarm in the population or radiophobia and has led to the spread of knowledge concerning radiation protection and an increased sense of personal responsibility for one's health."

[Nesterenko, A. V., Nesterenko, V. B. and Yablokov, Chernobyl: Consequences of the Catastrophe for People and the Environment.]

Antioxidants and Sulfur Compounds

DMSO is available in various formats.

Sulfur has a long history of use as an antidote for acute exposure to radioactive material. Antioxidants have the capacity to reduce toxic effects of radiation in our bodies. Early research identified sulfur-containing antioxidants as among those with the most beneficial therapeutic effects.

Dimethylsulfoxide (DMSO) is the classical sulfur compound and a powerful

anti-oxidant, exactly what we need for detoxification and protection from radiation. A Japanese study showed that even low concentrations of DMSO had radio-protective effects through the facilitation of DNA double-strand break repair, providing protection against radiation damage at all cellular levels in the whole body. The information and experience on DMSO is so fascinating that it can be described only as miraculous. Due to its importance, we have dedicated an entire article to it. See [DMSO: The Antidote for Radiation Poisoning](#).

The use of anti-oxidants such as alpha lipoic acid, Vitamin E, Vitamin C (ascorbic acid), vitamin B, selenium, N-acetylcysteine and other sulfur compounds becomes crucial. It is important to use several of them, as they work best as a team. In addition to that, individual anti-oxidants can act as pro-oxidants when they themselves are oxidized, therefore individual anti-oxidants could enhance the progression of post-irradiation damage to tissues and organs. Several studies have shown the importance of anti-oxidant supplementation to be an effective therapy against radiation hazards.

Alpha Lipoic Acid (ALA) is a crucial supplement. It is water and fat soluble and it is also capable of crossing the blood-brain barrier. This means that it is capable of reaching and preventing damage in our fatty tissues, our brains, and every single organ for that matter. ALA also repairs DNA. It is a good heavy metal chelator, it protects the heart and brain from cell death, stimulates the regeneration of liver tissue and is rapidly absorbed high up into the digestive tract. ALA recycles other antioxidants such as vitamin C, vitamin E, and glutathione which is an indispensable antioxidant for detoxification and is synthesized within the mitochondrion. Glutathione may not reliably be augmented by oral supplementation because it cannot always pass over the mitochondrial membrane, therefore it must be synthesized within the mitochondrion. ALA and its metabolite DHLA provoke the cell to produce significantly higher levels of glutathione (even by 70%). So if the glutathione levels in a cell are kept up to a satisfactory level by ALA, even if the cell is poisoned, the cell will have a better chance of recovering instead of dying. It is of critical importance in order to reduce or reverse radiation-induced oxidative damage after radiotherapy. The recommended dose of ALA is 100mg twice a day with meals, although others have used higher doses of between 300mg and 600mg. A study conducted on some of those who worked on the Chernobyl clean-up operation 10 years after the accident showed that 600 mg of lipoic acid for two months was able to normalize many, but not all, of their lab abnormalities.

The anti-oxidant N-acetyl cysteine (NAC), as a source of glutathione and

sulfur, is an excellent supplement to take. Studies have suggested that it might prove efficient in saving individuals exposed to lethal and sub-lethal radiation doses with few or no side effects on individuals exposed to lower doses. It is also widely available. Around 500mg twice a day is a good dose, although some have used with great success around 5 grams of NAC (per day, in a hospital setting) in 7 day cycles in order to detoxify heavy metals.

Other important supplements include magnesium and vitamin C. For more information on the many forms of magnesium and dose recommendation, see here. Calcium and magnesium both help your body to pass off Strontium 90, but make sure to take enough magnesium in order to properly metabolize the levels of calcium.

For vitamin C (ascorbic acid), 1-4 grams as a daily maintenance is a good dose, but during detox or acute exposure, more will probably be required. Vitamin C cannot only protect against radiation but also repair damage from previous exposure. It will also be very handy in case of infections. You can try taking 4 grams of vitamin C 3 times per day. If you have diarrhea or abdominal bloating, cut out one dose. If there are no signs of intestinal "gurgles", you can increase your dose throughout the day.

Consider taking also a good B complex which help to normalize the red and white blood cell count, since the destruction of white blood cells by radiation can last for extended periods of time.

Vitamin E 800-1000 IU per day and selenium 200 mcg per day are also important since radiation studies support evidence for the synergistic effects of vitamin E and Selenium in protecting from oxidative damage.

Zinc has been successfully used to chelate americium-241 from a nuclear accident victim. Natural zinc will also help the body eliminate several toxic heavy metals including cadmium, aluminum and lead. The recommended dose is 50 mg per day. You might want to supplement yourself with a good mineral complex in order to avoid deficiencies or imbalances brought on by increasing your zinc intake.

If there is a deficiency in potassium, radionuclides like cesium-137, cesium-134, potassium-40 and potassium-42, are absorbed through selective uptake. Too much potassium supplementation can be dangerous, so make sure to follow label instructions.

Melatonin, other than being our "sleeping hormone", also has powerful antioxidant properties. Animals subjected to whole-body irradiation and given melatonin exhibited increased survival and the protection against radiation-induced oxidative damage was apparent throughout the body. More importantly, melatonin

administered orally results in higher circulating levels and more rapidly increasing tissue concentrations. As soon as an exposure occurs, depending on the wind direction after radiation explosion, people living at a distance could protect themselves by oral administration of melatonin, which can be ingested repeatedly as required.

Curcumin is a naturally occurring compound contained in the spice turmeric. Curcumin has been found to have antioxidant, anti-inflammatory and anti-tumor activity in a variety of animal models of human diseases including radiation-induced pulmonary diseases.

Breathing and meditation techniques

The Éiriú Eolas Healing and Rejuvenation program is a key ingredient in detoxing

The proven and effective Éiriú Eolas program includes well-known stress control techniques that stimulate the vagus nerve, which then activates the parasympathetic system which is a powerful anti-inflammatory system. It also includes well known emotional releasing techniques. It can be applied to improve symptoms associated with breathing difficulties, autoimmune diseases and mood problems. It reduces oxidative stress with an improvement of the overall antioxidant status, and thus it has application in numerous diseases including, chronic radioactive exposure.

There is no question but that social and economic factors are dire for those sick from radiation. Sickness, deformed and impaired children, death of family and friends, loss of home and treasured possessions, loss of work, and dislocation are serious financial and mental stresses. - Alexey V. Yablokov, Vassily B. Nesterenko, and Alexey V. Nesterenko.

During the breathing exercises and the meditation portion of the program, levels of the anti-stress hormones GABA, melatonin, and serotonin are increased, and levels of the stress hormones cortisol and norepinephrine are decreased. Learn more about the many benefits of this program here. The program is available for free at eebreathe.com.

Diet

There are several simple cooking techniques that decrease radionuclides: boil foods several times and discard the water, wash food thoroughly, soak some foods and discard the water, avoid the peels of fruits and vegetables, salt and pickle some foods but throw away the pickling juice! Avoid eating strong broths, use

butter, etc.

Remember that another way of boosting your body's detox capabilities and overall anti-oxidant levels is through the foods we eat which then become key to survival in these stressful times. Being on a detox diet is crucial to regaining health in a toxic environment. Our extensive experience and research shows that those on a no grain/low carb (no gluten) and non dairy diet fare MUCH better.

Chronic ailments often involves an imbalanced immune/defense system in which food sensitivities are involved even if they are not the cause of the problem, leading in turn to chronic inflammation - which translates into disease. This is why it is important to undergo an elimination diet in order to balance the body's immune system. Some of our immune cells take 6 months to regenerate, so it can take that much time in order to see results if you are very sick. But often you can see positive results in the first two weeks on an appropriate diet, even when you can't afford any other detox therapies. You can find the diet and how to transition to it [here](#).

Everyone is different and it is only by testing foods that we can discern our individual problematic foods. Having said that, no one should be eating cereals or dairy products or high processed foods because the human system is simply not constructed to digest them properly. What we eat is crucial in recovering our health and it is a great healing medicine when done correctly.

Garlic and onions, being sulfur containing foods, help bind and deactivate both the radioactive isotopes and toxic metals such as cadmium, lead and mercury. The sulfur will help the kidneys and liver detoxify the body.

The most direct way of decreasing radionuclide intake is to avoid foods that are potentially heavily contaminated and to consume foodstuffs with lower levels. However, this is not easy to do because the average level of radionuclide bio-accumulation differs in each region owing to differences in soils, agricultural techniques, etc.

The Chernobyl experience tells us that soaking in water, boiling, salting and pickling foods such as vegetables can decrease the amount of radionuclides in some foods several-fold. Milk always contains high levels of radiation; processed products that reduce contamination levels, such as butter and ghee butter, are safer.

Radionuclide concentrations in the visceral organs of animals are usually significantly higher than in muscle tissue. Among visceral organs the order of decreasing levels of Cs-137 is: lung > kidney > liver > fat.

The Chernobyl experience showed that in contaminated territories the same

species of fish taken from rivers and streams have significantly lower radionuclide levels than those from lakes and ponds. Plant feeding fish had three to four times lower radionuclide levels than predatory species (catfish, pike, etc.). Fishes at lower levels of the ocean (crucian, tench, etc.) had several times more contamination than fish which live in the top water layers (small fry, chub, etc.).

It is very important to avoid radionuclides in food and if they are consumed to try to eliminate them from the body as quickly as possible. In a baby, the biological half-life of Cs-137 is 14 days; for a 5-year old it is 21 days; for a 10-year old, 49 days; for teenagers, about 90 days; and for a young male, about 100 days (Nesterenko, 1997).

From the Chernobyl experience, the order of decreasing levels of Cs-137 were: chicken > beef > lamb > pork. Meats from older animals have more radionuclides than meat from younger ones owing to accumulation over time. Bones of young animals have more Sr-90. Eggs: shell > egg-white > yolk.

Pork and fats were not only the safest, they also prove to be a very healthy option for detox and healing purposes. For more information, see 'I have high cholesterol, and I don't care'.

The biological properties of Cs-137 are similar to those of stable potassium and Rubidium, and Sr-90 and Pu are similar to calcium. These properties determine where they concentrate in the body so the use of stable elements may help to decrease the absorption of radionuclides.

Foods rich in potassium include potatoes, beets, raisins, dried apricots, bananas, tea, nuts, lemons, and dried plums. Calcium rich foods include butter and ghee butter, eggs, horseradish, green onions, turnip, parsley, dill, and spinach. Green vegetables, apples, sunflower seeds, black chokeberries are rich in iron; and Rubidium is found in red grapes.

A diet to protect against radioactive contamination should include uncontaminated fruits and vegetables, especially those rich in pectin such as apples to promote the rapid elimination of radionuclides.

Sleeping in Total Darkness

Low melatonin production leaves you not only susceptible to radiation damage, but it also leaves you vulnerable to accelerated aging, depression, weight gain. People with lower levels of melatonin have lower immune/defense function, less antioxidant activity and accelerated cancer cell proliferation, and they also tend to have more unhealthy imbalances in gut bacteria. But sleeping in total darkness is a natural way of enhancing the secretion of melatonin during the night. The room

where you sleep has to be completely dark to the point of not been able to see anything. If lights seeps underneath your door, put a towel along the base. Cover your electric clock radio with something. Even the smallest light can decrease melatonin secretion, even if you're not able to see it with your own eyes.

Miscellaneous

Natural zeolites (i.e., those found in volcanogenic sedimentary rocks) is a mineral which possesses attractive properties that contribute directly to their use in the extraction of Cs and Sr from nuclear wastes and the mitigation of radioactive fallout, but also as a dietary supplement for heavy metal detoxification. It also has anti-bacterial properties and it stimulates the immune system. It was used during successfully during Chernobyl.

Organic Germanium (Ge-132) protects cells exposed to cesium-137 without affecting cellular growth or survival. 25 mg to 100 mg per day has been typically used. (My favorite colon cleanser has organic germanium on it).

Activated charcoal has the ability to absorb and neutralize radioactive substances and some toxic materials. Researchers report that 10 grams or 1 tablespoon of charcoal can absorb about 3 to 7 grams of materials.

There are excellent articles out there focusing on iodine, clays, magnesium therapies and sodium bicarbonate. For more information, see:

Treatments for Nuclear Contamination
Iodine Treatments for Radiation Exposure
Greenmedinfo.com - Radioprotective

All this information will help you to not only protect yourself from chronic radiation exposure, but it will also help you to regain your health by improving your mood and mental functions in these crucial and stressful times.

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