

HOW TO SURVIVE NUCLEAR FALLOUT

1 Put distance between yourself and the blast site.

Radioactivity diminishes significantly with physical protection, time, and distance from the epicenter of the explosion. For a five-megaton weapon detonated at 2,000 feet (an average weapon yield and detonation altitude), move at least 20 miles away for safety. Travel in a crosswind direction (not with or against the wind) as quickly as possible. Drive a car with the windows rolled up. If no car is available, ride a bike or run.

2 Find shelter.

Any material will at least partially block radioactive particles. However, equal thickness, dense materials like lead, concrete, and steel are more effective than porous materials like wood, tile, drywall, and insulation. If you cannot get into a designated fallout shelter, move to the basement of a building made of stone or concrete, preferably with few windows. The deeper the basement, the more protection you'll have from radioactive particles.

3 Gather water.

The existing water in a basement water tank should be safe to drink, as is water in pipes. However, if dams and water treatment plants become contaminated, new water entering the system may be dangerous. Stored bottled water is safe, provided the water does

not come into contact with the outside of the bottle, which may be covered with radioactive particles.

4 Gather food.

Packaged foods and those that can be peeled or shelled—and that are already in the house—are safe to eat, provided the packages, peels, or shells are rinsed thoroughly with clean water to eliminate radioactive alpha and beta particles. Canned goods are also safe, provided the cans are washed with clean water and food does not come into contact with the can's exterior. Avoid foods from opened packages, even if the packages have been resealed with tape or clips.

5 Wash your hands before eating and drinking.

Using soap and clean water, wash your hands (and under your fingernails) thoroughly before handling food. Radioactive particles traveling on dust can be transferred to food easily. Once ingested, these may settle in bone marrow and internal organs, causing long-term illness.

6 Stay in your shelter.

Without a radiation rate meter, you will not know when it is safe to leave your shelter. If you have access to a battery-powered radio, listen for news and monitor emergency announcements regarding the safety of your location. Cellular and wired telephones may not work, and even satellite phones may suffer from severe interference. If available, use a CB or short-

wave radio to communicate with others until telephone service is restored.

Be Aware

A radiation suit will prevent you from tracking radioactive particles into the shelter (as long as you remove the suit upon entering), but will not offer protection from fallout.

WHAT TO DO IF YOU THINK YOU HAVE BEEN EXPOSED TO FALLOUT

1 Remove contaminated clothing.

Radioactive dirt and dust will cling to clothing, causing radiation burns, sickness, and contamination of other people and objects. Remove contaminated clothing before entering a clean area.

2 Take a shower.

Showering in clean, fresh water is the best way to remove harmful radioactive particles from your skin. Use soap and warm water and clean under fingernails and toenails. If you do not have a sufficient amount of uncontaminated water for a shower, fill a bucket with as much water as possible and take a sponge bath, making sure the contaminated water goes down the drain.

3 Take potassium iodide (KI) or potassium iodate (KIO₃) pills.

Potassium iodide or iodate helps prevent radiation absorption by the thyroid gland. While it is most effective when taken 48 hours prior to exposure, potassium iodide provides some benefit if taken within 16 hours of exposure to radioactive fallout. If no pills are available, mix 2 ounces of granulated potassium iodide (available at chemical supply stores) with clean water and shake or stir vigorously, adding more potassium iodide until the solution is fully saturated. (You will see unmixed granules at the bottom of the glass or bottle.) Take 4 drops of the solution per day for at least 10 days. For infants, paint iodine onto the soles of the feet.

4 Monitor your symptoms.

Mild exposure to radiation may result in skin burns, weakness, loss of appetite, vomiting, and diarrhea, while higher doses lead to fainting, bleeding from the nose and gums, hair loss, anemia, hemorrhage, brain damage, and sometimes death within 48 hours. In general, breathing or swallowing radioactive particles or exposure to gamma rays result in more severe illness than surface exposure to radioactive particles, which are relatively easy to remove from the skin.

5**Get help.**

Though there is no known treatment for radiation sickness, seek medical attention as soon as it is safe and possible to do so. A bone marrow transplant might alleviate some damage from exposure.

Be Aware

- Iodized salt is not an effective protection against radiation damage to the thyroid: You will get salt poisoning before absorbing enough iodine to have a beneficial effect.
- Victims of exposure to high levels of radiation may appear to improve several days after exposure as the body superficially heals. But deep biological damage remains, and the victim may rapidly deteriorate after the initial improvement.

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