
Frequently Asked Questions about a Radiation Emergency

On this page:

- What Is Radiation?
- How Can Exposure Occur?
- What Happens When People Are Exposed to Radiation?
- What Types of Terrorist Events Might Involve Radiation?
- What Preparations Can I Make for a Radiation Emergency?
- How Can I Protect Myself During a Radiation Emergency?
- Should I Take Potassium Iodide During a Radiation Emergency?

What Is Radiation?

- Radiation is a form of energy that is naturally present all around us.
- Different types of radiation exist, some of which have more energy than others.
- Radioactive material is a substance that gives off radiation
- Amounts of radioactive material released into the environment are measured in units called **curies**. However, the dose of radiation that a person receives is measured in units called **rem**.

For more information on radiation measurement, see the CDC fact sheet Measuring Radiation.

For more information about radiation check the following Web sites:

- U.S. Environmental Protection Agency: Radiation
- Radiation Emergency Assistance Center/Training Site of Oak Ridge Associated Universities: Radiation Accident Management

How Can Exposure Occur?

- People are exposed to small amounts of radiation every day, both from naturally occurring sources (such as elements in the soil or cosmic rays from the sun), and man-made sources. Man-made sources include some electronic equipment (such as older television sets), medical sources (such as x-rays, certain diagnostic tests, and treatments), and from nuclear weapons testing.
- The amount of radiation from natural or man-made sources to which people are exposed is usually small; a radiation emergency (such as a nuclear power plant accident or a terrorist event) could expose people to small or large doses of radiation, depending on the severity of the incident.
- Scientists estimate that the average person in the United States receives a dose of about two-thirds of a rem per year. About 50% of human exposure comes from natural sources and the remaining 50% primarily comes from medical radiation exposures.

distance from the blast. Many people could have symptoms of acute radiation sickness. After a nuclear explosion, radioactive fallout would extend over a large region far from the point of impact, potentially increasing people's risk of developing cancer over time.

For more information about radiation terrorist events, see the CDC Radiation Emergencies website or check with the following organizations:

- Oak Ridge Radiation Emergency Assistance/Training Site
- U.S. National Response Team
- U.S. Department of Energy
- Nuclear Regulatory Commission
- U.S. Environmental Protection Agency

What Preparations Can I Make for a Radiation Emergency?

- Your community should have a plan in place in case of a radiation emergency. Check with community leaders to learn more about the plan and possible evacuation routes.
- Check with your child's school, the nursing home of a family member, and your employer to see what their plans are for dealing with a radiation emergency.
- Develop your own family emergency plan so that every family member knows what to do.
- At home, put together an emergency kit that would be appropriate for any emergency. The kit should include the following items at a minimum:
 - A flashlight with extra batteries
 - A portable radio with extra batteries
 - Bottled water
 - Canned and packaged food
 - A hand-operated can opener
 - A first-aid kit and essential prescription medications
 - Personal items such as paper towels, garbage bags, and toilet paper

For more information about preparing for a radiation emergency event, check the following Web sites:

- Federal Emergency Management Agency
- American Red Cross: Terrorism – Preparing for the Unexpected
- U.S. Environmental Protection Agency's Office of Emergency Management

How Can I Protect Myself During a Radiation Emergency?

- During and after a release of radioactive materials, local, state and federal authorities will monitor the levels of radiation and determine what protective actions to take.

abnormal growths later on. KI will saturate the thyroid gland with iodine, decreasing the amount of harmful radioactive iodine that can be absorbed.

- KI only protects the thyroid gland and does not provide protection from any other radiation exposure.
- Some people are allergic to iodine and should not take KI. Check with your doctor about any concerns you have about potassium iodide.

For more information about KI, see the CDC fact sheet Potassium Iodide (KI) or check the following Web sites:

- U.S. Food and Drug Administration: Frequently Asked Questions on Potassium Iodide (KI)
- U.S. Food and Drug Administration: Potassium Iodide as a Thyroid Blocking Agent in Radiation Emergencies