

NUCLEAR BLAST FACT SHEET

What is a nuclear blast?

A nuclear bomb explosion creates a large fireball, which results in a mushroom cloud. As this vaporized radioactive material cools, it becomes thick and forms particles, such as dust. The thick radioactive material then falls back to the earth; this is known as fallout. Fallout is radioactive and can cause contamination of anything on which it lands, including food and water supplies.

How can you be exposed?

You can be exposed to either from internal or external exposure. External exposure occurs when people have been exposed to radiation outside of their bodies from the blast or its fallout. Internal exposure would occur if you ate food, drink water or breathed air that has been contaminated with radioactive fallout.

What are the immediate symptoms of exposure to a nuclear blast?

The effects on a person from a nuclear blast will depend on the size of the bomb and the distance the person is from the explosion. However, a nuclear blast would likely cause great destruction, injury, death and would have a wide area of impact. In a nuclear blast, injury or death may occur as a result of the blast itself or as a result of debris thrown from the blast. People may experience moderate to severe skin burns, depending on their distance from the blast site. Those who look directly at the blast could experience eye damage ranging from temporary blindness to severe burns on the retina.

What are the long-term health effects of exposure to a nuclear blast?

Individuals near the blast site would be exposed to high levels of radiation and could develop symptoms of radiation sickness (called acute radiation syndrome, or ARS). While severe burns would appear in minutes, other health effects might take days or weeks to appear. These effects range from mild, such as skin reddening, to severe effects such as cancer and death, depending on the amount of radiation absorbed by the body (the dose), the type of radiation, the route of exposure, and the length of time of the exposure. Internal and external exposure from fallout could occur miles away from the blast site. Exposure to very large doses of external radiation may cause death within a few days or months. External exposure to lower doses of radiation and internal exposure from breathing or eating food contaminated with radioactive fallout may lead to an increased risk of developing cancer and other health effects.

What should I do during a nuclear blast?

In the event of a nuclear blast, a national emergency response plan would be activated and would include federal, state and local agencies. The following are recommended steps:

- *If you are near the blast when it occurs* – turn away and close your eyes to prevent damage to your sight. Then, drop to the ground face down and place your hands under your body.
- *If you are outside when the blast occurs* – cover your mouth and nose with a cloth. Then, remove your clothes, if possible take a shower, wash your hair, and change clothes before you enter the shelter.
- *If you are already in a shelter or basement* – Keep your mouth and nose covered with a facemask, shut off ventilation and seal doors or windows until the fallout cloud has passed. Stay inside and listen to the local radio or TV for information and advice. If you must go out, cover your mouth and nose with a damp towel. Use stored food and drinking water. Do not eat fresh food or drink water from open water supplies. Keep any open wounds clean and covered.
- *If you are advised to evacuate* –listen to the radio and TV for information on evacuation routes, temporary shelters and procedures to follow. Before you leave your home secure all of your windows, doors and turn off any air conditioning, vents fans, and furnace. Close the fireplace dampers. Take your disaster supplies and check to see if your neighbors may require special assistance.

Where can I get more information on nuclear blast?

The CDC Public Response Source at 1 (888) 246 -2675

www.bt.cdc.gov

www.dshs.state.tx.us

Source of information

Centers for Disease Control and Prevention

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