

# **Nuclear Weapon Explosion Extended and Short Messages**

## **Health and Safety Information for the First Hours in the Region of the Blast**

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**Grade Level: 8.7**

## **Nuclear Weapon Explosion Extended Message**

Health and Safety Information for the First Hours in the Region of the Blast

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### ***What is happening?***

- This is an urgent health message from the U.S. Department of Health and Human Services (HHS). Please pay careful attention to this message to protect your health and that of others.
- A nuclear weapon has been exploded in the *xxx area*.
- Please pay careful attention to this message to protect your health and the health of others.
- We do not know the size of the blast or the extent or type of radioactive contamination. Local, state, and federal officials, including HHS, FBI, and Homeland Security, are working together. Updated announcements will be made as soon as officials know more.
- Stay indoors until officials tell you that you can leave, unless you are severely injured.
- If you are outdoors, cover your mouth and nose with a cloth. Remove your outer layer of clothing. Find shelter.
- If you are severely injured and have severe burns or bleeding, get medical treatment as soon as possible. Emergency personnel will be on the scene.
- If you need to evacuate or leave your area, officials will inform you about evacuation routes, temporary shelters, and other issues.
- Remember: You cannot see, feel, smell or taste radiation. You may not know that you have been exposed to radiation.
- We are all shocked and concerned about this tragedy. We need to stay strong, with hope for the future, as we do our best to help each other. By staying informed and following instructions from health officials, you can protect yourself, your family, and the community against this public health threat.
- For more information on the health effects of nuclear weapon explosions, go to the HHS Web site at <http://www.hhs.gov>, the Centers for Disease Control and Prevention's (CDC)

nuclear blast page at <http://www.bt.cdc.gov/radiation/nuclearfaq.asp>, or call the CDC Hotline at 1-800-CDC-INFO for the latest information.

- This message contains additional information that can help protect your health and the health of others.

### ***What should I do right now?***

*NOTE TO HHS USERS: There will be a need to create messages for groups of people depending upon where they were at the time of the blast (inside, outside, in a vehicle), as well as within various distances of the explosion and fallout. The following messages address some of these situations.*

#### ***What to do if you are indoors***

- Stay indoors until officials tell you that you can leave, unless you are severely injured.
- You should also:
  - Go to the lowest level of the building, such as the basement, away from windows and doors.
  - Turn off the air conditioner, heater, and fans. Close the fireplace damper.
  - Protect yourself as much as possible from radiation exposure by doing the following:
    - Cover your mouth and nose with a scarf, handkerchief, or other cloth until officials announce that the fallout cloud has passed to prevent breathing in dangerous particles.
    - Clean and cover any open wounds on your body.
    - Use sealed stored food and drinking water. Do not eat local fresh food or drink water from open water supplies until we can tell you it is safe.
    - Follow the steps for decontamination given below.

Here are instructions for decontamination. Following these steps will eliminate a large portion of the radiation that may be on you.

1. Do not touch other people. Touching others can spread radiation.
2. Remove your outer layer of clothing including shoes or boots.
3. Do not remove the clothes over your head. If necessary, cut clothes off.
4. If possible, put the clothes in a plastic bag and seal it. Be sure to keep cuts and abrasions covered when handling contaminated items to avoid getting radioactive material in the cuts.
5. Put the sealed plastic bag where others will not touch it. Keep it until authorities tell you what to do with it.
6. Take a shower or wash yourself the best you can with soap and lukewarm water.

#### ***What to do if you are outdoors***

- Cover your mouth and nose with any cloth, such as a handkerchief.
- Go indoors or underground. Move to a shelter, basement, or other underground area.

- Right before going to a sheltered area, remove your outer layer of clothing since it may be contaminated to remove much of the radioactive material.
- Follow the instructions to protect yourself indoors, including the steps for decontamination (see above).

***What to do if you are driving in the xxx area***

- You can reduce the amount of radiation you are exposed to by following these steps:
  - Pull over to the side of the road. Don't block emergency vehicles.
  - Temporarily turn off the engine until you receive further instructions from emergency officials. Shut down any vents that draw outside air, including air conditioners. Running the engine and driving pulls outside air into the car and could expose you to additional radiation.
  - To avoid inhaling or swallowing radioactive dust, cover your mouth and nose with a scarf, handkerchief, or other cloth.
  - Listen for further instructions from emergency management personnel.

***What to do if you have minor injuries or think you have been exposed to radiation***

- Except in those cases of extreme injury, staying inside is your best protection. Do not leave a shelter to get care for minor injuries or because of concerns about radiation exposure.
- If you were outdoors in the *xxx area*, decontaminate your body. If you were close enough to the blast to have minor injuries, then you most likely have been exposed to radioactive particles.

***What is a nuclear weapon explosion?***

- A nuclear weapon explosion involves a blast that produces an intense pulse wave of heat, light, air pressure, and radiation.
- When such a weapon is exploded, a large fireball is created. Everything inside of this fireball vaporizes and creates a mushroom cloud.
- If the burst is very close to the ground, the vaporized material will include dust. As this material cools, it becomes condensed, forms particles, and falls back to the earth; this is known as fallout. Fallout is dangerous because it contains radioactive particles.
- The radioactive particles in "fallout" can be carried long distances by wind currents before they fall back to the earth.
- Depending on the type of nuclear weapon and how it is exploded, fallout may or may not occur. In a terrorist attack, we suspect that fallout would occur because the type of nuclear weapon used will likely have been exploded from the ground.

***What type of injuries could occur from a nuclear weapon explosion?***

- Injuries from a nuclear weapon explosion may come from the blast itself, debris thrown from the blast, or from the radiation that is sent out.
- Injuries from the blast or debris thrown from the blast may include moderate to severe skin burns, bleeding, or even death, depending upon the person's distance from the blast.
- People who are near the site of the blast may also experience radiation sickness.

- Initial symptoms of radiation sickness typically include nausea, vomiting, and diarrhea. These symptoms will start within minutes to days after contact with the radiation.
- People with radiation sickness may also develop (within a few hours) some skin damage, including swelling, itching, and redness.
- Those who looked directly at the blast could experience eye damage ranging from temporary blindness to severe burns on the retina.
- If people receive only a small dose of radiation, they might not have any symptoms. They may be at increased risk for developing cancer later in life.

***Can the illness caused by radiation be spread from person to person?***

- The illness caused by radiation exposure cannot be spread from person to person. It is *not* a contagious disease that can be spread by coughing or sneezing.
- However, a person can spread the radioactive material if it is on their skin, clothes, or hair. People can also spread the radioactive material if it is in their body fluids, such as vomit. If someone comes into contact with radiation in these ways, they may become ill.
- Once people remove their clothing and shower, most of the radioactive material is removed from their bodies and the risk of spreading radioactive material is lessened.

***How are the effects of a nuclear explosion treated?***

- After a nuclear blast, many people will need to be treated for injuries associated with the explosion, such as burns, wounds, fractures, and bleeding.
- For people suffering from radiation sickness, treatment will depend on the severity of symptoms. Treatment may include supportive care, infection control, and treatment of specific symptoms.
- Several drugs can treat people exposed to radiation.
- Public health officials are working to make the necessary medications and equipment available to those who need it.
- You may have heard of KI (potassium iodide). KI only protects you from certain kinds of radiation. It is not yet known if taking KI will give any protection against the radiation from a nuclear weapon explosion.

***What is being done and how to get more information***

- Federal, state, and local officials are working together to find and treat people who need help during this national tragedy.
- Public health officials will make announcements about when and where to get medical attention for injuries. We will also share important information as soon as we know more. This includes areas where radiation is found, whom to call, and where to go for treatment.
- If you are able, turn to your TV, radio, or Internet news for the latest updates from officials. Go to [insert local media information here] for the latest information from local officials.
- For more information on the health effects of nuclear weapon explosions, go to the HHS Web site at <http://www.hhs.gov>, the Centers for Disease Control and Prevention's (CDC) nuclear blast page at <http://www.bt.cdc.gov/radiation/nuclearfaq.asp>, or call the CDC Hotline at 1-800-CDC-INFO for the latest information.

**Grade Level: 7.9**

## **Nuclear Weapon Explosion Short Message**

### **Health and Safety Information for the First Hours in the Region of the Blast**

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