



# Terrorist Use of Radiological Dispersion Devices

Preparedness Empowers You  
It saves lives, property, and time.

Emergencies happen, often with little or no notice. By taking action beforehand you can be prepared for any emergency.

Be Ready Navy!  
I am. Are you?

The radioactive materials used in power generation, industry, medicine, and research are easier for terrorists to obtain than the weapons-grade uranium or plutonium necessary for nuclear bombs. Even without the technology and expertise to create, deliver, and detonate a nuclear bomb, terrorists could still cause fear and disruption by dispersing radioactive materials in a number of ways.

Although introducing radioactive material into food or water supplies might produce fear and panic, the extent of contamination and danger would be relatively limited. A more likely method is a radiological dispersion device (RDD), or “dirty bomb,” using conventional explosives to spread radioactive material into the surrounding area.

As with any explosion, an RDD could cause serious injuries and damage. Contamination from an RDD event could affect a wide area, thus, radiation from an RDD will likely take longer to dissipate due to a potentially larger localized concentration of radioactive material. The extent of the danger would depend on the size and design of the bomb, the amount and type of radioactive material, and weather conditions. The dust spread from the explosion could be dangerous to inhale or eat—a large enough dose would increase the risk of developing cancer later in life.

## How to Prepare

- 1 As for all emergencies, the fundamental preparatory steps are to **be informed** and know how to spot and react to certain signs of danger. Find out whether buildings in your area have been designated as fallout shelters. If not, make your own list of potential shelters near work and home, including interior areas of large buildings and basements, subways, and tunnels. If you live or work in a large building, talk to management about the safest place in the building for sheltering and about stocking emergency supplies.
- 2 Make a family **emergency plan** that includes a designated internal room in which to shelter.
- 3 Build an **emergency kit**. There is unlikely to be advance warning of the terrorist use of an RDD, but if you do become aware of heightened threat, increase your supplies to last for up to two weeks.

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## What to Do

- If you are **outside** when there is an explosion or authorities warn of a radiation release nearby—
    - » Immediately cover your nose and mouth with some fabric that will filter the air.
    - » Don't touch material thrown by the explosion.
    - » Quickly find shelter in an undamaged building.
    - » If you can't find appropriate shelter right away, move away from and upwind of the explosion as you continue to search.
    - » Listen for and follow official instructions.
  - If you are **in a car** when there is an explosion or authorities warn of a radiation release nearby—
    - » Cover your nose and mouth with some fabric that will filter the air.
    - » Close the windows and vents; turn off the heater and air conditioner.
    - » If you are close to an undamaged building, go there immediately and take shelter.
    - » If no appropriate shelter is nearby, find a safe place to park, and turn off the engine.
    - » Listen to the radio for instructions, and stay put until you are told it is safe to get back on the road.
  - If there is an explosion or you are warned of a radiation release **in a building where you are**—
    - » Cover your nose and mouth.
    - » Don't touch material that may be contaminated.
    - » Leave immediately and seek shelter in an undamaged building.
  - If you are in, or take **shelter** in, an undamaged building when there is an explosion or authorities warn of a radiation release nearby—
    - » Take an emergency kit, if available, and go to an underground or interior room.
    - » To keep out radioactive dust, close doors, windows, and vents and turn off ventilation systems. Seal windows and external doors that do fit snugly with duct tape. Plastic sheeting will not provide shielding from radioactivity.
    - » Stay put and use radio, TV, or the Internet to get official information and instructions.
- After an explosion**, only trained people with special equipment will be able to detect the presence of radiation or assure of its absence. No matter where you are, but particularly in a city or near a likely terrorist target, try to avoid or limit exposure to the dust from an explosion—especially inhaling it.
- If you may have been contaminated by radioactive dust—
    - » As soon as it is practical, remove and bag your outer clothing, being careful not to breathe the dust. Keep the bag away from people until you get official instructions.
    - » Wash your hair and skin with soap and water to remove any remaining dust.
    - » Change into uncontaminated clothing and seek medical attention after officials indicate it is safe to leave shelter.
  - If pets may have been contaminated by radioactive dust, wash them with soap and water before letting them inside.
  - Don't drink water or eat unpackaged food that may have been contaminated by radioactive dust. Packaged food will be safe to eat, but wash the outside of containers before opening. Authorities will monitor food and water quality for safety and keep the public informed.

## Where to Find Additional Information

Department of Homeland Security (Ready.gov) & FEMA—[www.ready.gov/radiological-dispersion-device-rdd](http://www.ready.gov/radiological-dispersion-device-rdd)