

# Dirty Bombs

Dirty bombs, also called radiological dispersal devices (RDDs), are a type of bomb that mixes explosives such as dynamite with radioactive materials. When exploded, a dirty bomb scatters radioactive material into the surrounding environment.

Radiation is a form of energy that comes from both natural and man-made sources, including the sun, the ground, X-rays and nuclear power. Small amounts are always around us and are not harmful. But large doses, such as from accidents or weapons, can cause serious harm and death.

## **What are the dangers from a dirty bomb?**

There are two main dangers from dirty bombs: radiation and the explosion itself. In many cases, the explosion may be the greater danger.

The severity of the radiological threat depends on the kind and amount of material used. Many experts believe terrorists are unlikely to use high-level radioactive materials because they are difficult to obtain and are dangerous to work with outside of specialized facilities.

Dirty bombs are more likely to contain low-level radioactive materials that are less dangerous. Even if the radiation poses only a minimal threat, a dirty bomb is still a major disruption.

## **What should you do if you get contaminated by a dirty bomb?**

If you are at the blast site or in another contaminated area, you can reduce contamination on your body by taking the following steps:

1. Cover your nose and mouth with a cloth to avoid inhaling radioactive dust and smoke.
2. Get out of the contaminated area quickly and go indoors. If emergency personnel are present, they may instruct you to take specific protective actions.
3. Remove the outer layer of your clothing and put it in a plastic bag. (This can remove up to 90 percent of contamination.) Do not throw clothing away. Stay tuned to the local news for information about proper disposal.
4. Shower or wash all areas of your body that were exposed with soap and lukewarm water. Be sure to wash your hair.
5. If injured, cover wounds to help avoid internal contamination and seek medical attention.
6. As soon as possible, tune to the local news for information about protective actions.

## **If you were not at the blast site, can you be in danger from radiation?**

Yes. Wind can carry contamination beyond the blast site. Even if you do not get contaminated material on your body, you can still be exposed to radiation. Exposure occurs when you are close to a radioactive source or breathe airborne radioactive particles.

## **Should people evacuate or stay?**

Tune to the local news and follow instructions from your local officials. If they order certain areas to be evacuated,

## *What you need to know about . . .*

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they will tell you where to go. People in other areas may be advised to shelter in place. If you must shelter in place, close all windows, doors and fireplace dampers. Turn off the air conditioner to keep outside air from coming inside.

### **How will you know if you are exposed?**

You will not know because you cannot see, smell or feel radiation. To find out if you have been exposed you must be screened with special equipment that measures radiation levels in the body. Stay tuned to the local news for information about who is at risk and needs to be screened.

### **What are the symptoms of radiation exposure?**

A dirty bomb probably will not release enough radiation to cause any symptoms or long-term health consequences. However, if a large enough dose of radiation is released, symptoms can include nausea, reddening of the skin and an increased risk for cancer later in life. Severe radiation exposure can lead to death.

### **Are there preventive medicines you can take?**

There are medications that can be taken after exposure to prevent or reduce risks from some types of radiation, but not all types. Tune to your local news to find out if medications can help, and if so, how they will be provided.

### **Can people spread radioactive contamination to others?**

Contaminated people can spread contamination to others. All contaminated people should be washed. Their clothing should be permanently discarded. Once people are

decontaminated, they will not pose a danger to others.

### **What about pets?**

Contaminated pets can spread radioactive contamination, too. They should be hosed down or bathed with soap and water, and their outdoor food and water should be discarded.

### **Will the food supply be safe?**

Radioactive materials can contaminate crops and farm products. Eating contaminated foods will cause you to become internally contaminated. Tune to the local news for information about the safety of food supplies.

### **How long will an area be contaminated?**

Radiation levels will need to be monitored at the blast site and other affected areas. Decontamination may be required in many areas. The decontamination process involves removing radioactive material and washing contaminated surfaces and objects. Some areas may be cleaned quickly. It may take several days or months for the blast site to be decontaminated and return to normal.