

DIRTY BOMBS

Polk County Preparations

Because of ongoing concerns about potential terrorist attacks, the U.S. government is working to improve overall preparation against terrorism. This preparation includes learning more about protecting ourselves against possible attacks.

If a public health emergency happens in our community, the Polk County Public Health Department will be the local agency responsible for preparing and guiding medical response and public information efforts. During such an emergency, a critical role of the Public Health Department will be to work with other local first responders, such as fire and police. The Public Health Department will also coordinate response activities with state and federal agencies.

This information is being provided to help you understand what a dirty bomb is and what response you may be asked to take in the unlikely event of a dirty bomb explosion.

What is a “Dirty Bomb”?

A dirty bomb is a bomb that contains radioactive materials. Using an explosive such as dynamite, the bomb spreads radioactive materials into the area around the explosion. A dirty bomb kills or injures through the initial blast and possibly through airborne radiation. The main purpose of using a dirty bomb is to frighten people and create disruption by making buildings or land near the site of the explosion unusable until a complete cleanup takes place.

The Difference Between a Dirty Bomb and a Nuclear Explosion

Dirty bombs are radiological dispersion devices. That means they can spread radioactive material, but they do not create an atomic or nuclear explosion. Nuclear weapons involve a complex nuclear reaction that causes widespread damage thousands of times more devastating than a dirty bomb.

The Impact of a Dirty Bomb Explosion

The damage caused by a dirty bomb depends on the type and quantity of the explosives used, the radioactive material in the bomb, and weather conditions, especially wind speed and direction. In most cases, any immediate deaths or serious injuries would result from the explosion itself rather than radiation exposure. Because the explosion spreads radiation into the air, it may be weakened to relatively low concentrations.

It is unlikely that a low dosage of radiation would result in any immediate deaths. People near the blast could suffer from radiation sickness and might require hospital care.

Beyond the potential casualties inflicted at the explosion site, the biggest concern about a dirty bomb is its ability to cause panic and fear. For example, the need to evacuate an urban area would cause significant disruption. In addition, the area struck might be off-limits for several months during cleanup efforts, which could damage a local economy and reinforce public fears about being near a radioactive area.

(See other side)

How to Respond to a Dirty Bomb Explosion

Emergency officials will assess the scene and damage of an explosion. Emergency announcements on the radio and television will give instructions, including what steps to follow to protect your health.

If you were exposed to a dirty bomb explosion, it is important to remember to:

- Reduce the time spent near the source of the radiation.
- Increase your distance from the source.
- Increase the shielding between you and the radiation.

Shielding can be anything. Depending on the level of radioactive materials used, a plate glass window to several feet of concrete can create a protective barrier between you and the radiation source.

How to Limit Radioactive Contamination

If you were exposed to radiation, remove your clothes as quickly as possible and put them in a sealed plastic bag. This will reduce your exposure to radiation and remove most of the contamination caused by radioactive materials. Take a shower or wash as thoroughly as you can with lukewarm water. Washing will effectively reduce exposure to radiation. Listen to the radio for information and instructions on how to get rid of any contaminated items.

If you have any questions about dirty bombs, please contact the **Polk County Health Department at 515-286-3798**. Public Health Department staff members are available to answer your questions Monday to Friday from 8 a.m. to 5 p.m.

For information about putting together an Emergency Preparation Plan, visit the Department of Homeland Security site at www.ready.gov. Also, see the Centers for Disease Control and Prevention's Web site at www.bt.cdc.gov for additional information.

