



## Different Types of Radiation Emergencies

### Types of Radiation Emergencies

Radiation emergencies may be

- Intentional (e.g., caused by terrorists)
- Unintentional or unplanned

#### Intentional (Terrorist) Acts

- Contaminating food/water with radioactive material
- Spreading radioactive material into the environment
  - Using conventional explosives (e.g., dynamite) – this is called a dirty bomb
  - Using wind currents or natural traffic patterns
- Bombing or destroying a nuclear reactor
- Causing a truck/train carrying nuclear material to spill its load
- Exploding a nuclear weapon

#### Unplanned radiation emergencies

- Dirty Bombs
- Nuclear Blast
- Nuclear Reactor Accidents
- Transportation Accidents (unintentional spill of radioactive material from a truck or train)

### What is a dirty bomb?

**A dirty bomb is *not* the same as an atomic bomb**

An atomic bomb, like those bombs dropped on Hiroshima and Nagasaki, involves the splitting of atoms and a huge release of energy that produces the atomic mushroom cloud.

A dirty bomb works completely differently and *cannot create an atomic blast*. Instead, a dirty bomb uses dynamite or other explosives to scatter radioactive dust, smoke, or other material in order to cause radioactive contamination.

### What are the main dangers of a dirty bomb?

The main danger from a dirty bomb is from the explosion, which can cause serious injuries and property damage. The radioactive materials used in a dirty bomb would probably not create enough radiation exposure to cause immediate serious illness, except to those people who are very close to the blast site. However, the radioactive dust and smoke spread farther away could be dangerous to health if it is inhaled. Because people cannot see, smell, feel, or taste radiation, you should take immediate steps to protect yourself and your loved ones.

**For additional information about Different Types of Radiation Emergencies please see the Radiation Emergencies web site.**