

Identify Types of Radiation Events

Radiological/Nuclear Event

Obvious in Real Time

Not Obvious in Real Time

Nuclear Explosion: Weapon or Improvised Nuclear Device

Nuclear Accident at Reactor

Nuclear Accident
Medical Facility, Transportation, Industrial Facility

RDD: Explosive Device

RDD: Contamination of soil/air/water/food supply

RED: Hidden Radioactive Source

How will it be discovered? Evidence from environmental and/or population observation

- Observation of characteristics of nuclear explosion: cloud shape, blast, flash, etc

- Evidence of sabotage or accident
- Routine facility monitoring
- Explosion internally or externally

- Evidence of sabotage or accident
- Routine facility monitoring

- Police/Hazmat investigation of explosion detects radiation

- Routine monitoring of concentration of radioactive materials in soil, air, water or food supply
- Epidemiological surveillance of a population
- Public health reports leading to a pattern of similar suspicious illnesses

- Environmental detectors locate hidden sources outside of expected places, e.g. subway, sports field
- Public health reports of a pattern of similar suspicious illnesses
- Unexplained changes in blood counts among people sharing history of being in one (or more) geographic place(s)

Evidence from individual clinical observation

- Onset of Acute Radiation Illness (Prodrome)

- Occupational worker surveillance as part of facility procedures, badge detection
- Acute medical trauma or illness

- Occupational worker surveillance as part of facility procedures, badge detection
- Acute medical trauma or illness

- Contamination will be considered for all persons in proximity to event identified as a dirty bomb
- Radiation exposure effects will be sought among the affected victims

- Unexplained illnesses
- Positive Radiation Survey reading in individuals or their body fluids

- Unexplained dermatological condition consistent with radiation burn or radiation dermatitis due to proximity to the radiation source
- Unexplained drop in blood counts from prolonged exposure
- Onset of Acute Radiation Syndrome (Prodrome)

What kind of radiation effect?

- Exposure
- Contamination
- [More...](#)

- Exposure
- Contamination
- [More...](#)

- Exposure
- Contamination
- [More...](#)

- Contamination (external and possibly internal)
- Radioactive shrapnel
- Possible exposure
- [More...](#)

- Internal contamination
- [More...](#)

- Exposure
- [More...](#)