



Improvised Nuclear Devices (IND)

An improvised nuclear device (IND) is an explosive nuclear weapon. An IND could be constructed from stolen nuclear weapon components or nuclear material to produce a nuclear explosion. INDs, while not as powerful as Cold War-era nuclear weapons, can cause significant injury and destruction.

A nuclear explosion involves a blast that produces intense waves of light, heat and air. Anything immediately near the explosion will be destroyed. Besides physical damage, an IND explosion also releases radioactive material. The resulting dust and debris pulled upward will form a "mushroom" cloud above the explosion. When it falls to earth this dust and debris is known as fallout. Fallout is dangerous because it contains radioactive material. Radioactive fallout can be carried long distances by wind.

An IND will also create a light flash visible out to 10 miles or more. The flash may cause permanent or temporary blindness for several seconds to minutes. High velocity blast winds will quickly follow the flash, causing building collapse and injury from flying glass and debris. Electrical and magnetic impulses could damage electrical circuitry and power systems.

To protect yourself and others following an IND detonation:

- Do not try to leave the area immediately following the blast. If in a car, seek shelter in the nearest building, ideally brick or concrete. Remain calm and clear headed.
- Protect yourself and others from radioactive fallout:
 - Seek shelter indoors for at least 12 hours and go to the lowest level of the building, away from windows and doors.
 - Seal off the shelter from outside wind and air: turn off the air conditioner, heater and fans; close the fireplace damper.
 - Protect yourself as much as possible from breathing radioactive dust by covering your mouth and nose with a cloth.
 - Eat or drink only sealed food and drinking water.
 - Do not eat local fresh food or drink water from open water supplies until authorities tell you it is safe.
- Listen for official instructions and directions on emergency broadcasts.
- Apply first aid when and where needed. Clean and cover any open wounds on your body.
- If exposed to fallout, you should decontaminate yourself. Following these steps will eliminate a large portion of the radiation that may be on you.
 - Do not touch other people. Touching others can spread radiation.
 - Remove your outer layer of clothing, including foot wear.
 - Do not remove the clothes over your head. If necessary, cut clothes off.
 - If possible, put the clothes in a plastic bag and seal it. Be sure to keep cuts and abrasions covered when handling contaminated items to avoid getting radioactive material in the cuts.
 - Put the sealed plastic bag where others will not touch it. Keep it until authorities tell you what to do with it.
 - When it is safe, take a shower or wash yourself the best you can with soap and water.

For more information on public health and emergency preparedness, visit the Office of Preparedness and Response online at <http://preparedness.dhmh.maryland.gov>, www.twitter.com/MarylandOPR and www.facebook.com/MarylandOPR.