

**Reference Card from:**

*Individual Preparedness Response to Chemical, Radiological, Nuclear, and Biological Terrorist Attacks: A Quick Guide*  
Lynn E. Davis, Tom LaTourrette, David E. Mosher, Lois M. Davis, David R. Howell  
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# WHAT YOU SHOULD DO

## TO PREPARE FOR AND RESPOND TO CHEMICAL, RADIOLOGICAL, NUCLEAR, AND BIOLOGICAL TERRORIST ATTACKS



**This Reference Card** summarizes the essential features of a strategy for what individuals should do to prepare for and respond to terrorist attacks involving chemical, radiological, nuclear, and biological weapons. This strategy emerged from a study that RAND conducted, under the sponsorship of the Alfred P. Sloan Foundation, and is fully reported in *Individual Preparedness and Response to Chemical, Radiological, Nuclear, and Biological Terrorist Attacks*, MR-1731-SF, RAND, Santa Monica, Calif., 2003. As the terrorist threat evolves and new opportunities for individual preparedness and response emerge, individuals should look for updates to this strategy in the future.

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1. Gain understanding of what will be required to accomplish response actions in each type of terrorist attack; learn to recognize attack characteristics; understand the response actions.
2. Facilitate response actions by making plans and gathering information in advance: develop family communications plan; plan for long-term shelter; learn about appropriate kinds of medical treatment from medical professionals; discover building evacuation plans and potential shelters.
3. Ensure general emergency kit accounts for terrorist attacks: dust mask, battery-powered radio, duct tape and plastic sheeting.
4. Enhance protection through passive steps: weatherize home; install good-quality particulate filters.

### What you should do

# PREPARATORY ACTIONS

TO BE ABLE TO MAKE THE APPROPRIATE RESPONSES IN THE EVENT OF AN ATTACK, YOU SHOULD TAKE THESE ACTIONS AHEAD OF TIME.

Use duct tape and plastic sheeting to seal windows, doors, vents, and other openings in a chemical attack.

### Preparatory Actions

Use a dust mask, with a N95-rated particulate filter, to cover your nose and mouth in radiological, nuclear, and biological attacks.

### Biological Attack

According to the Centers for Disease Control, those potentially exposed to smallpox are individuals who have come into close contact with an infected person while that person is contagious, as well as household members of those who have come into close contact. "Close contact" means living in the same home as someone who has smallpox or spending at least three hours in the same room with someone who has smallpox.

### Nuclear Attack

Shelter in a multistory building (greater than 10 stories) should be in the upper floors, above the fallout on the ground, but at least three stories beneath the roof, below the fallout deposited on the roof.

### Radiological Attack

Leave or avoid buildings damaged or threatened by the explosion. Emergency officials will indicate when it is safe to move about freely. safety program and after proper training.

### Chemical Attack

An emergency escape hood is a pull-over respirator with an elastic neck seal that provides protection for only a short time. It should only be used when issued as part of a workplace or other organizational safety program and after proper training.

# NOTES

Fold in

### What you will experience

You will know that you are in a chemical attack because you will see many people who are nauseous, have blurred vision, and have difficulty breathing or because you see many sick or dead animals.

# CHEMICAL ATTACK

### What you should do

#### Overarching Goal

Find clean air very quickly.

#### Response Actions

1. If attack is outdoors, and you are outdoors, take shelter quickly in the closest building, close all windows/doors, and shut off the flow of air. If inside, stay inside. Then, to the extent possible, move upstairs, find an interior room, and seal the room. Remain inside until told it is safe to leave, and then ventilate and vacate the shelter immediately.
2. If attack is indoors, follow chemical attack plans specific to your building. If these are not available, open windows and breathe fresh air. If open windows are not accessible, evacuate (using escape hood if available) by stairs to street or roof.
3. Once protected from chemical agent exposure, decontaminate by removing clothes and showering.
4. When conditions are safe to move about freely, seek medical treatment.



- Fold In -



1. If symptomatic, immediately go to medical provider specified by public health officials for medical treatment.
2. If informed by public health officials of being potentially exposed, follow their guidance.
  - For contagious diseases, expect to receive medical evaluation, surveillance, or quarantine: - If "in contact" with persons symptomatic with smallpox, obtain vaccination immediately.
  - For noncontagious diseases, expect to receive medical evaluation.
3. For all others, monitor for symptoms and, for contagious diseases, minimize contact with others.
4. Leave anthrax-affected area once on antibiotics if advised to do so by public health officials.

#### Response Actions

Get medical aid and minimize further exposure to agents.

#### Overarching Goal

### What you should do

# BIOLOGICAL ATTACK

### What you will experience

You are likely to learn about a biological attack only days later, when people develop symptoms of the disease and public health officials inform the public of the attack.

### What you will experience

You will know that an explosion has occurred by the blast and damage to buildings, but you will not know immediately whether it involves radioactive contamination.

# RADIOLOGICAL ATTACK

### What you should do

#### Overarching Goal

Avoid inhaling dust that could be radioactive.

#### Response Actions

1. If an explosion occurs outdoors or you are informed of an outside release of radiation and you are outside, cover nose and mouth and seek indoor shelter. If you are inside an undamaged building, stay there. Close windows and doors and shut down ventilation systems. Exit shelter when told it is safe.
2. If an explosion occurs inside your building or you are informed of a release of radiation, cover nose and mouth and go outside immediately.
3. Decontaminate by removing clothing and showering.
4. Relocate outside the contaminated zone, only if instructed to do so by public officials.



- Fold In -



1. Move out of the path of the radioactive fallout cloud as quickly as possible (less than 10 minutes when in immediate blast zone) and then find medical care immediately.
2. If it is not possible to move out of the path of the radioactive fallout cloud, take shelter as far underground as possible or if underground shelter is not available, seek shelter in the upper floors of a multistory building.
3. Find ways to cover skin, nose, and mouth, if it does not impede either evacuating the area or taking shelter.
4. Decontaminate as soon as possible, once protected from the fallout.
5. If outside the radioactive fallout area, still take shelter to avoid any residual radiation.

#### Response Actions

Avoid radioactive fallout: evacuate the fallout zone quickly or, if not possible, seek best available shelter.

#### Overarching Goal

### What you should do

# NUCLEAR ATTACK

### What you will experience

You will know that you are in a nuclear attack by the bright flash, loud explosion, widespread destruction, intense heat, strong winds, and the rising of a mushroom cloud.