

CHEMICAL, BIOLOGICAL and RADIOLOGICAL TERRORISM EMERGENCY INSTRUCTIONS and INFORMATION SHEET

By Elizabeth Terry

Terrorism Survival information you don't want to be without if a Biological, Chemical, or Radiological Attack occurs near you.

The first few minutes after a chemical, biological or radiological (CBR) terrorist attack are the most critical, and actions can be taken to save lives. The first priority is to avoid or reduce exposure. Every minute lost may cost lives, and it is unlikely that experts will be present immediately to advise. These instructions and information sheet provide prioritized instructions for those caught in a CBR attack.

The Instructions and Information Sheet are applicable to a variety of situations, personal and business, simple dwelling and large building. The principles remain the same.

Family instructions can be used by children, guests, and babysitters in the family home.

Organization instructions can become part of the core security program for large and small corporations, schools, businesses, etcetera.

The Information Sheet and Key are intended for use by both Families and Organizations.

The Emergency Instructions and Information Sheet are from the Survival Handbook for Chemical, Biological, and Radiological Terrorism, by Elizabeth Terry and J. Paul Oxer, P.E. (Library of Congress Number: 2003094544; ISBN 1-4134-1935-6).

CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL TERRORISM EMERGENCY INSTRUCTIONS

FOR FAMILIES

IF CBR ATTACK OCCURS OUTSIDE OF THE BUILDING YOU ARE IN

If your house or building is damaged by an accompanying explosion, assess whether outside air can enter through damaged area. (See Information Sheet, No.13.)

- Turn off air conditioning, heating, or fans. See Information Sheet, No.7.
- Evacuate to a room as far as possible from damaged area with few or no windows. Seal junctions between doors and windows and their frames with masking tape or similar material, or stuff as tightly as possible with soft fabric.
- If available, use a cell phone to dial 911 from your sheltered room for rescue instructions. If no phone is available in your room, remain there until rescuers arrive or until 6-8 hours have passed if air in room remains breathable. If air becomes stale, breathe through multiple layers of clothing held tightly over mouth and nose while walking to your car to leave the area. See Information Sheet, Nos. 1 & 2.

If building is undamaged, remain inside while emergency situation stabilizes:

- Close windows and external doors. See Information Sheet, No.11.
- Turn off air conditioning, heating, or fans. See Information Sheet, No.7.
- Seek shelter in an internal room with no windows or outside doors, if possible. Block air passage into the shelter room with heavy tape or by stuffing soft clothing into the gaps.
- If you live in an apartment building where you have no control over heating and air conditioning systems, seek shelter in a room with few or no vents, and seal junctions between doors and door frames with tape or soft clothing - as above. If vents are present in shelter room, close and cover with plastic sheeting or plastic bags taped securely to prevent air leakage. .
- Await instructions from officials outside of building to exit when safe or via the least contaminated pathways.

CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL TERRORISM EMERGENCY INSTRUCTIONS FOR FAMILIES

IF CBR ATTACK OCCURS WHILE YOU ARE OUTSIDE

- If possible, tightly hold multiple layers of fabric or tissues over your mouth and nose and breathe through them.
- Refrain from talking.
- Until inside, breathe shallowly, and as little as possible.
- Walk rapidly to and enter the nearest building or completely enclosed space.
- Stay inside, as far as possible from windows and doors, and from working elevators and air vents.
- Move towards the center of the building, and walk up one or two floors, if possible.
- Await instructions from disaster responders outside of building to exit when safe or via the least contaminated pathways.

CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL TERRORISM EMERGENCY INSTRUCTIONS FOR FAMILIES

IF CBR ATTACK OCCURS INSIDE OF YOUR BUILDING

If a number of people go down within seconds to minutes, or exhibit serious symptoms simultaneously, it is most likely that a chemical warfare agent has been used. In this case:

- Move people outside as quickly as possible via uncontaminated exits.
- Call 911
- Isolate anyone emerging from affected area to avoid contaminating others.

If a CBR attack is believed to have occurred but no one is exhibiting symptoms:

- Establish an evacuation pathway as far as possible from area believed to be contaminated.
- Evacuate building as quickly as possible.
- If you must pass through a contaminated area:

Cover mouth and nose with layers of fabric or tissues;
Refrain from talking;
Breathe shallowly and as little as possible.

- Call 911.
- Anyone who may have come into contact with CBR should be isolated from everyone not involved in their treatment. Areas to which they are taken for treatment should be isolated from the internal air recirculation system of any building used for shelter.

CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL TERRORISM EMERGENCY INSTRUCTIONS

FOR ORGANIZATIONS

IF CBR ATTACK OCCURS OUTSIDE OF YOUR BUILDING

If your building is damaged by an accompanying explosion, assess its structural stability. (See Information Sheet, No.13.)

- If evacuation is necessary because the structure is unstable, do not use fire alarms before barricading any exit leading into the path of the CBR.
- Consult on-the-scene emergency responders, and route evacuees to exits as far as possible from CBR. See Information Sheet, Nos. 1 & 2.

If building is undamaged, remain inside while emergency situation stabilizes:

- Close external air intake valves: See Information Sheet, Nos.5-7.
- If possible, shut down internal air circulation on entry floors, floors with loading docks, floors where explosive damage permits entry of contaminated air into the system, etc., to ensure that air that may have been contaminated by open doors is not recirculated to the rest of the building. If these areas cannot be isolated from the air handling system, shut down internal air circulation. See Information Sheet, Nos. 8 & 9.
- Close windows and external doors: See Information Sheet, No.11.
- Shut down elevator power: See Information Sheet, No. 14. .
- Move company employees on entry floor/s to upper floors of building: See Information Sheet, No.12.
- Barricade access from entry floors to employee-occupied floors.
- Move personnel away from windows into central rooms and hallways.
- Await instructions from officials outside of building to exit when safe or via the least contaminated pathways.

CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL TERRORISM EMERGENCY INSTRUCTIONS

FOR ORGANIZATIONS

IF CBR ATTACK OCCURS INSIDE OF YOUR BUILDING

If a number of people go down within seconds to minutes, or exhibit serious symptoms simultaneously, it is most likely that a chemical warfare agent has been used. In this case:

- Ban entry to affected area.
- Move people outside as quickly as possible via uncontaminated exits.
- Turn off air circulation system.
- Isolate anyone emerging from affected area to avoid contaminating others.

If a CBR attack is believed to have occurred but no one is exhibiting symptoms:

- Establish an evacuation pathway as far as possible from area believed to be contaminated.
- Evacuate building as quickly as possible. Do not use fire alarms unless the attack area is securely barricaded against entry by evacuees.
- If exits are contaminated, organization security should work with emergency agencies to determine whether decontamination should or can be carried out before evacuation commences. The risk of CBR spreading into uncontaminated, employee-occupied parts of the building must be weighed against the risk of exiting through contaminated areas. See Information Sheet, Nos. 1 & 2.
- If evacuees must pass through a contaminated area, instruct them to:
 - Cover mouth and nose with layers of fabric or tissues;
 - Refrain from talking;
 - Breathe shallowly and as little as possible.
- Personnel who may have come into contact with CBR should be isolated from everyone not involved in their treatment. Areas to which they are taken should be isolated from the internal air recirculation system.

INFORMATION SHEET

Important Telephone Numbers

The capabilities and responsibilities of each organization listed here should be explored, ensuring that these phone numbers will reach the appropriate people or services. In the case of a CBR attack, lives could be lost in the time necessary to find an alternative telephone number or straighten out a misunderstanding as to emergency responsibilities.

1. Local Sheriff: _____ Local Police: _____

2. HAZMAT Team: _____ State Police: _____

3. Regional airports, including small airfields which crop dusters might use:

Airport: _____ Number: _____

Location: _____

Airport: _____ Number: _____

Location: _____

Airport: _____ Number: _____

Location: _____

4. Other Important Numbers:

Understand your air handling system

5. Number of external air intakes? _____

6. Location of external air intakes?

7. Location of air intake controls or on/off controls for heating and air conditioning?

Location of key to access control room? _____

Location of air intake shut down switch? _____

Phone number of building supervisor? _____

8. Does the air handling system permit the isolation of the entry floor/s from rest of building? Instructions for isolating:

9. If building suffers explosion damage, is it possible to isolate damaged area from internal air circulation? Instructions:

Assess your building

10. Which floors does the company occupy?

11. Floors and room numbers with opening windows/doors?

12. Building entrances/exits are located on Floors:

13. How vulnerable is your building to explosive force?

14. Location of elevator on/off switches?

Know Your Water Supply

15. Where are the water pipes that supply your building?

16. Can they be accessed through sewer or other tunnels near your building?

17. Where do water pipes enter the building?

18. Where is water stored in the building?

19. If vulnerable to tampering, can water pipes and storage supplies be better protected?

20. Do security personnel make periodic (but irregularly timed) visual inspection of these system components?

Personnel Training

CBR emergency training can include a brief familiarization with the nature of chemical, biological, and radiological weapons, which stresses in particular that there are many steps that can be taken to protect against them in the event of an attack.

If CBR terrorist attack is outside of building:

- Remain inside until law enforcement and health officials declare outside to be safe.
- Use Information Sheet to assist in following Terrorism Emergency Instructions.

If CBR attack takes place inside of building:

- Follow Terrorism Emergency Instructions. Avoid the area in which attack took place.
- If the only building exit is contaminated, the best alternative means to exit is: _____

INFORMATION SHEET KEY

- 1 - 4. This information facilitates communication and coordination.
5. External air intakes: Buildings may have more than one.
6. Location of external air intakes: May be a unit separate from building, on rooftop, or built into side of building.
7. Air intake controls: Probably inside of building. May be in a maintenance room that requires a key to enter. Maintenance personnel probably know location of external air intake shut down switch, which can be more easily located by others if plainly marked. If this switch cannot be located in an emergency, contacting a building supervisor may solve the problem.

If chemical, biological, or radiological materials have been released outside of your building, the objective is to close off external air intake and recirculate air already in the building unless there is suspicion that it is contaminated.

- 8 - 9. Depending on the size of the building and the sophistication of the air handling system, it may be possible to shut down air intake valves for specific floors or locations.

If people contaminated with chemical, biological, or radiological materials enter the building, air on the entry floor may become contaminated and should not be recirculated to other areas of the building. Likewise, if an external wall of the building is penetrated by explosion, it is preferable to exclude that air from recirculation.

If air from contaminated areas cannot be excluded from circulation, it is safer to shut down the system. There will be enough air in the building to support people comfortably for many hours.

11. Windows, French doors, delivery platform doors, and any other external openings should be tightly closed as quickly as possible after an attack outside the building.
12. Floor numbers and number of exits on each floor should be listed here (i.e., Floor 1 - 2 exits, Basement - 1 loading platform door, etc.).

People may enter buildings in an attempt to escape a terrorist attack in the street. These people could be contaminated with biological, chemical, or radiological substances in sufficient quantities to be harmful to employees in the area. It is safest to move employees to upper floors and isolate those floors from entry floors. A prominently displayed sign on the entry

desk bearing a phone number for the upper floors can provide a means for emergency authorities entering the area to contact employees.

Alternative building exits may provide a useful escape route into an uncontaminated area. Use of exits should be coordinated with emergency responders to determine the safest time and location from which to exit the building.

13. This is a difficult question to answer very specifically, as explosions affecting different parts of the building's structure, and the amount and type of explosive used are just two of the variables that can alter the severity of the damage. Nevertheless, it is useful to have some sense of the structural hardness and vulnerabilities of your building. The important question if outdoor release of biological, chemical, or radiological weapons is accompanied by an explosion, is whether it is safer to remain in the building to escape the released material, or to leave the building to escape its collapse.
14. When going down, elevators pull outdoor air from the top of the building down into the shaft. This air can be distributed to the building floors, and introduce contaminants from a terrorist attack outside.
15. If water pipes just outside of your building are located at or near the ground surface, it may be possible to introduce chemical poisons, toxins, or biological agents (bacteria or viruses) during hours of darkness without being observed.
16. The greatest danger to your water supply is from the pipes that feed directly into your building. Because of the dilution factor, contaminants introduced into the water supply at greater distances from the end user would require more conspicuous quantities. Underground pipes leading up to your building may be accessible via sewer tunnels, an adjacent basement, or other underground structures. This information should be available from your local water company.
17. It is useful to know where water pipes enter the building so that any excavation in that area can be investigated to ascertain its legitimacy.
19. If necessary, water pipes which can be accessed from an underground tunnel or which lie too close to the surface can be hardened against tampering through the addition of an extra layer of wider gauge piping. It may also be possible to encase the water pipe channel in concrete.

Personnel Training

Personnel training should include the information that:

- Employee safety is of paramount importance to the company and best guarded by complying with instructions;
- Security personnel have prepared to deal with a terrorist attack of this sort;
- Public health experts coming to the scene have the equipment to gauge danger and assist after an attack;
- CBR agents may not be visible; or detected by smell;
- The best protection is staying away from these agents;
- Remaining in uncontaminated air is very important;
- Chemical and radiological agents over time can disperse in air until the amounts are no longer dangerous;
- Many biological agents can be treated with antibiotics.

If an attack occurs outside, the greatest safety is likely to be indoors unless the building seal to the outside has been broken and contaminated air cannot be kept out of the building.

If an attack occurs within the building, personnel should evacuate as rapidly as possible, following the directions of designated safety staff to avoid contaminated areas.

If an attack occurs inside and the only exit is contaminated, egress through upper story windows may be safer. Alternatively, if air in the contaminated area can be separated from circulated air in the rest of the building, personnel can remain in uncontaminated areas until exit is decontaminated. Personnel should follow directions of on-site emergency responders.