Once clear of the suspected contaminated area, remove all external clothing and leave it outside. Proceed directly (within minutes) to a shower and wash thoroughly with soap and water, scrubbing aggressively to cover every part of your body with at least ten scrubbing motions. Irrigate your eyes with water. Seek medical attention, if needed.

Understanding the Terminology

The following definitions may help to clarify the terms used frequently in discussions of biological and chemical weapons.

BIOTERRORISM is the use of poisons or agents derived from "living" (bio = life) entities such as bacteria, viruses and toxic plants. Examples of biological agents include:

Bacterial agents such as anthrax — Bacteria are organisms that reproduce by simple division. Although they may produce deleterious and potentially lethal effects on the body, the diseases they produce often respond to treatment with antibiotics.

Viruses such as smallpox — Viruses require living cells in which to reproduce and are intimately dependent upon the body they infect. Viruses produce diseases (the common cold, for instance) that typically do not respond to antibiotics, although antiviral drugs are sometimes effective.

Toxins such as toxic poisons derived from plants, animals and bacteria — Toxins (such as the botulism toxin from the bacteria *Clostridium botulinum*) are poisonous substances that are typically extracted from plants, animals or microorganisms. Pharmaceutically developed antitoxins and medications can treat some toxins.

CHEMICAL TERRORISM involves the use of chemicals to destroy life, injure humans and animals, and produce panic, disruption and chaos.

It is important to remember that chemicals are the backbone of our daily lives. They exist in the food we eat, the clothes we wear and the health and beauty aids we rely on every day. Good chemicals used improperly can cause problems, just as chemical terrorism agents can be destructive.

Chemical terrorism agents are poisonous vapors, aerosols, liquids or solids that have toxic effects on people, animals or plants. They can be released by bombs, sprayed from aircraft, boats, or vehicles, or used as a liquid to create a hazard to people and the environment.

Some chemical agents may be odorless and tasteless. They usually have an immediate effect (a few seconds to a few minutes) or a delayed effect (several hours). While potentially lethal, chemical agents are difficult to deliver in lethal concentrations. Outdoors, the agents often dissipate rapidly. Chemical agents are also difficult to produce.

There are six types of chemical agents:

- Lung-damaging (pulmonary) agents such as phosgene and chlorine
- Cyanide
- Blister agents such as mustard gas
- Nerve agents such as GA (tabun), GB (sarin), GD (soman), GF, and VX
- Incapacitating agents such as BZ
- Riot-control agents (similar to MACE).

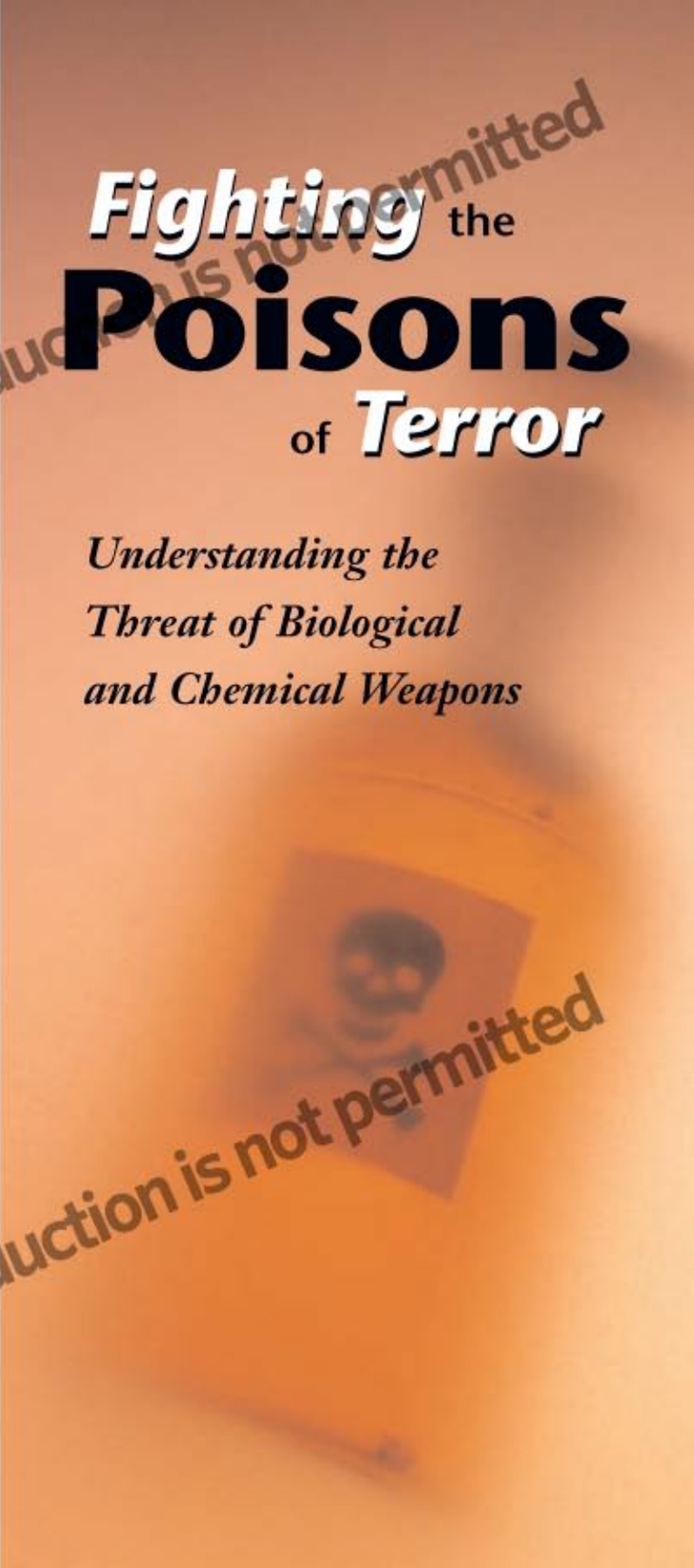
To learn more about biological and chemical poisons, call your local Poison Center at 1-800-222-1222.

Use Mr. Yuk to teach your children about poisons and how to contact your Poison Center.

BM/MT 06/03

Fighting the Poisons of Terror

Understanding the Threat of Biological and Chemical Weapons



Overcoming the Fear Factor

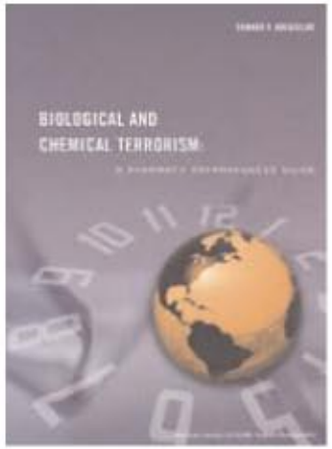
High Alert. Chemical Attack. Code Orange. Biological Weapons. Terroristic Threats.

Today, these terms are all too familiar.

NOW, MORE THAN EVER, people are worried about biological and chemical agents being used as weapons of mass terror—and fear of the unknown makes the threat even more sinister. The threat alone can poison the mind with anxiety.

That is why the **Poison Center** (1-800-222-1222) wants people to realize we know a great deal already about the biological and chemical agents that present a potential threat. We also know a lot about how these agents may be dispersed—*which is not so easy to do*—and, perhaps most importantly, how to respond to possible incidents.

Preparedness is key, and our nation's HazMat response teams, health care systems and poison centers are better prepared than most people would suppose. Additionally, federal agencies are collaborating with local, regional and state governments to refine preparedness and response plans.



Not the First Time: Lessons from History

One reason we are prepared is that we are familiar with these poisons. Unfortunately, we've dealt with them before. Biological and chemical agents have been used as weapons throughout history. A little historical perspective helps to understand how biological and chemical agents have evolved from being used as weapons against soldiers in war to emerging as weapons of mass threat to civilian populations:

- Biological and chemical agents have been used as unconventional warfare agents since the 6th century B.C.
- In Medieval times, soldiers catapulted contaminated animal carcasses over fortress battlement walls to infect defending forces.
- During the French and Indian War, ruthless British soldiers supplied smallpox-laden blankets to Native Americans who were sympathetic to the French. The resulting smallpox epidemic spread rapidly among the Native American population with devastating effects.
- The horror of proactive, institutionalized chemical warfare emerged as a large-scale nightmare during World War I. Tens of thousands of unsuspecting troops were injured or killed after exposure to tons of corrosive and deadly battlefield chemicals such as chlorine, mustard and phosgene.

Today, these weapons still pose a threat on the battlefield, but may also menace civilian populations. It is important, however, to place the actual risk of exposure to these agents in perspective.

A Tricky Proposition

Demystifying the poisons that constitute biological and chemical threats is a good thing, but it is important not to minimize the danger. The danger is very real. It helps to know, however, that acquiring, producing and dispersing biological or chemical agents may be more easily said than done. Many of their characteristics reduce the likelihood that they can be transformed from weapons of "mass threat" to weapons of "mass destruction." It is worth noting that:

- Most biological and chemical agents are difficult and dangerous to acquire, handle and transport.

- Extremely sophisticated expertise and technology may be necessary to produce the agents, especially biological agents.
- Chemical properties may make it difficult to disperse a sufficient quantity to produce toxicity — each of these agents has a toxicity threshold that must be reached in order to inflict harm.
- Enormous quantities are necessary to contaminate a water supply or poison people at a civic gathering. This requirement reduces their potential for use as terrorist weapons.

Practical Tips for Reacting to a Potential Incident

While biological and chemical weapons may be difficult to transport and disperse, suppose you should find yourself in an area that may have been attacked. What to do?

First and foremost, don't let panic prod you into reckless action, and don't let fear freeze you into inaction. Be observant. Call 911 or your local **Poison Center** (1-800-222-1222). If you are outdoors, cover all exposed skin surfaces and protect your respiratory system as much as possible, perhaps using a handkerchief or item of clothing to cover your mouth and nose.

If the reported event is outdoors, and you are indoors, stay inside. If you are indoors, however, and an alarm is sounded, find the emergency exits and try to avoid the suspected area of contamination on your way out of the building. Keep windows and doors shut tight, and turn off the ventilation system.