

FAQs for a Biological Attack

What should I do to protect my family and myself if a biological agent were released in my community?

Emergency management teams will let you know if you need to evacuate the area. Self-isolation will protect you and your family from contagious diseases. Most agents are destroyed by bleach, or in some cases soap and water. Do NOT drink bleach or use on skin.

What should I do if I'm in a building during a biological attack? Stay in your area so that you do not kick up dust. Cover your mouth with a handkerchief or clothing. If a letter or package is the source of the biological material, close the doors and windows of the room where the source is located and turn off air conditioning, heating and fans. Shout only as a last resort—shouting can cause you to inhale dangerous amounts of dust.

Is there a way to distinguish between anthrax and a cold or flu? A runny nose is a rare symptom of anthrax. A person who has a runny nose along with other common flu-like symptoms is far more likely to have the common cold or flu than to have anthrax. Flu-like symptoms outside of the “flu season” should trigger medical attention.

If smallpox is released in a cloud (aerosol) form, how long does the virus survive? The smallpox virus is fragile. In lab experiments, when smallpox is put into cloud form, 90% of the smallpox virus dies within 24 hours; in the presence of sunlight, this percentage is even greater.

Is smallpox contagious before the symptoms show? A person with smallpox is sometimes contagious with onset of fever, but the person becomes most contagious with the onset of rash. The infected person spreads the disease into the air by breathing and from the scabs. Infected persons are contagious until the last smallpox scab falls off.

If someone is exposed to smallpox, is it too late to get a vaccination? Vaccination within 3 days of exposure will completely prevent or significantly reduce the severity of the disease in the vast majority of people. Vaccination 4 to 7 days after exposure likely offers some protection from disease or may modify the severity of disease.

Should I keep a stockpile of antibiotics? No. There is no single pill that can protect against all types of biological agents, and antibiotics have a limited “shelf life” before they lose their strength. Also, antibiotics can cause side effects, and unless you store and take the drug properly, it may not work or may cause you to become ill. For most bacterial agents, the antibiotic regime must be specific for the agent and prescribed by medical personnel.

Is it safe to drink water from the tap? It would be extremely difficult for a terrorist to contaminate our drinking water supplies to cause widespread illness. Anything deliberately put into the water supply would be greatly diluted, and water treatment facilities routinely filter the water supply and add chlorine in order to kill harmful germs. However, citizens can protect themselves by boiling their drinking water, which will kill any microorganisms that may have survived the municipal filtration systems.

How can I recognize a bioterrorism hoax? If you are not sure whether a bioterrorism report is true or not, check with credible sources, such as the Centers for Disease Control and Prevention’s Health-Related Hoaxes and Rumors Website at http://www.cdc.gov/hoax_rumors.htm

A number of internet sites are available regarding urban legends and hoaxes, such as the Urban Legend Reference Page at <http://www.snopes2.com> or the Computer Incident Advisory Committee and Department of Energy’s HoaxBusters site at <http://hoaxbusters.ciac.org>

You can also get more information from the Centers for Disease Control and Prevention Public Response Hotline (CDC):

- English (888) 246-2675
- Español (888) 246-2857
- TTY (866) 874-2646

Should I purchase disposable masks as part of a home emergency disaster kit? Having disposable masks in a home emergency disaster kit is not a bad idea, but they are not absolutely necessary. In an emergency, you can get the same amount of protection by placing an article of clothing—a shirt or blouse, or a handkerchief—over your mouth and nose. It will likely be several days before we recognize that a biological weapon has been used against us. In some cases, even several days after an attack, medical authorities may want you to wear a simple paper mask when you go outside, so having them on hand would be convenient. (Listen to the radio and television for instructions.) Paper masks offer little, if any, protection against chemical weapons, though. In an emergency, simply covering your mouth and nose with clothing—until you are out of the danger area—is a better idea. (Remove the covering and breathe fresh air once you are out of the chemical cloud.) In any situation where there is a lot of dust and debris—for example, following any type of explosion—it is a good idea to cover your mouth and nose to prevent your lungs from being damaged.

FAQs for a Chemical Attack

Should I purchase a gas mask as protection? No. A mask would only protect you if you were wearing it when a chemical (or biological) attack occurs. A release of a chemical (or biological) agent is most likely to be done without anyone knowing it, so you would not know ahead of time to put on your mask. Wearing a mask continuously or “just in case” an attack occurs, is impractical, if not impossible. Masks that are not properly fitted will NOT give you adequate protection. For example, it is difficult to obtain a proper seal with the mask if you have facial hair such as a beard or long sideburns. Protective masks do not fit small children. There are reports of accidental suffocation when people have worn masks incorrectly, as happened to some Israeli civilians during the Persian Gulf War.

Should I keep a supply of water? You can live only a few days without water, so it is very important that you create an emergency supply of safe water. One gallon of safe water per person per day is the bare minimum for survival. Most surplus stores can sell you inexpensive 50-gallon plastic drums. Properly chlorinated tap water can be stored safely for up to three months. Water purification tablets are also readily available from many surplus and camping supply stores.

What are the signs of a chemical attack? Many chemical agents cannot be seen or smelled. Observe the following rule of thumb: If a single person is on the ground, choking or seizing, this individual is probably having a heart attack or some type of seizure. However, if several people are down, coughing, vomiting or seizing, they could be reacting to the presence of a toxic substance. Leave the area immediately, call 911 and tell the dispatcher a hazardous gas may be present.

What should I do during a chemical attack?

If the attack occurs indoors:

Exit the building immediately. Avoid puddles of liquid. Once outside, if you were directly exposed to a toxic substance, discarding your modesty and shedding your clothes could save your life. Taking off your outer clothing can remove roughly 80 percent of the contamination hazard. Look for a nearby fountain, pool or other source of water to quickly and thoroughly rinse any skin that may have been exposed (e.g., jump in a pool). Water alone is an effective decontaminant. Try to remain calm. Rescuers will give medical attention to the most seriously injured individuals first.

If the attack occurs outdoors:

Birds and other small animals would very quickly be overcome by a poison gas, so if birds and insects are dropping from the sky, this is an indication of a possible chemical attack. The most important thing to do is to get a physical barrier between you and the toxic cloud. Get indoors quickly—into a building or a car. Shut all windows and doors and turn off the air conditioner or heater. Plug any air drafts (e.g., under doors). Call 911 and notify authorities that a hazardous gas may be present. The wind will carry the toxic hazard away within a relatively short period of time. Stay indoors, and turn on the television or radio for news. Authorities will notify you when it is safe to go outside. If you are at home, put your clothes in a plastic bag and take a shower to remove any contamination to which you may have been exposed.

FAQs for a “Dirty Bomb” Attack

What is a “dirty bomb?” A “dirty bomb” is a conventional explosive such as dynamite packaged with radioactive material that scatters when the bomb goes off. (The radioactive material would likely be material stolen from hospitals, nuclear power plants, or other industrial sites. It is not the same as an atomic bomb.) Most “dirty bomb” casualties will be from the initial blast of the conventional explosive. The radioactive material that is scattered as a result of the explosion causes the “dirty” part. The TNT in such a bomb may still be more dangerous than the radioactive material. Its destructive power would depend on the size of the conventional bomb, and the amount of the nuclear material used.

What is radiation? Radiation is a form of energy that is present all around us. Different types of radiation exist, some of which have more energy than others, and some of which cause more harm to people than others. The dose of radiation that a person receives is measured in units called rem. For example, the average person gets about 1/3 of a rem from natural exposure during a year, and approximately 1/100th of a rem from one chest x-ray. Radiation comes from man-made sources such as x-ray machines, from the sun and outer space, and from some radioactive materials such as uranium in soil.

Will a “dirty bomb” make me sick? The effects of a “dirty bomb” can vary, depending on what type of radioactive material is used and on how much material is scattered. Although a “dirty bomb” could cause serious injuries from the explosion, it most likely would not have enough radioactive material in a form that would cause serious radiation sickness among large numbers of people. Just because people are near a radioactive source for a short time or get a small amount of radioactive material on them does not mean they will get radiation sickness or cancer.

However, radioactive material is much more dangerous if it gets inside your body—by eating or drinking, breathing, or through an open wound—than if it remains outside. If you come into contact with radioactive material from a “dirty bomb,” take the following precautions: Do not eat, drink or smoke, do not lick your lips, and do not touch your hand to your face or to an open wound until you have left the contaminated area and have been properly decontaminated by experts.

What types of terrorist events might involve radiation? Types of terrorist events could include introducing radioactive material into food or water supply (powdered or liquid radioactive material can be spread without using explosives), using explosives (like dynamite) to scatter radioactive materials (called a “dirty bomb”), bombing or destroying a nuclear facility, or exploding a small nuclear device. Although introducing radioactive material into the food or water supply would cause great concern, it probably would not cause much contamination or increase the danger of adverse health effects.

What are the signs of a radiation attack? There will be signs of an explosion, but you cannot see or smell radiation.

How fast do I have to leave the area? For the most likely “dirty bomb,” anyone who survives the explosion will actually have hours to evacuate. There is no need for panic. It takes hours to accumulate enough radiation from a “dirty bomb” to cause you to get radiation sickness or develop cancer.

How can I protect myself during a radiation emergency? If you are advised to stay at home or office, you should do the following: Close all doors and windows, turn off ventilators, air conditioners and forced-air heating units that bring in fresh air from the outside. Only use units to recirculate air that is already in the building. Close fireplace dampers, move to an inner room, and keep your radio tuned to the emergency response network. If you are advised to evacuate: Follow the directions from your local officials, and if immediately available, take a flashlight, portable radio, batteries, essential medicines, and cash and credit cards.

You recommend NOT using public transportation when evacuating from a “dirty bomb” attack, but what about using my private vehicle? If you drive your car or truck, some radiation material may get inside and will have to be cleaned out. Listen to local news broadcasts for instructions about cleaning your vehicle. If you drive your private vehicle, do not run the heater or air conditioner. When you get home, remove your clothing OUTSIDE and place it in plastic bags. Listen to local news broadcasts for instructions on how to discard these contaminated clothes.

I was a mile from the detonation—am I going to be sick? Listen to emergency broadcast information for instructions that will depend on the size of the attack, direction of the wind, and components of the “dirty bomb.” It is extremely unlikely that anyone who survives the blast will become sick from radiation. In addition, your ability to have children will not be affected.

Will I be able to decontaminate my home and continue to live in it during and after the attack? Yes. Decontamination is difficult but possible, and with reasonable effort and care, you should be able to return to a normal, safe life in your home.

Should I buy a radiation detector? No. Unless you have been trained, you won’t be able to interpret the readings. Many of the Geiger counters available commercially are worthless or uncalibrated.

Should I purchase potassium iodide tablets for protection against radiation? No. Potassium iodide (KI) (available over-the-counter) protects people from thyroid cancer caused by radioactive iodine, a cancer-causing agent that can be released in nuclear explosions. KI should only be taken in a radiation emergency that involves the release of radioactive iodine, and only radioactive iodine, such as an accident at a nuclear power plant or the explosion of a nuclear bomb. A “dirty bomb” will not contain radioactive iodine, so KI pills are of no use for a “dirty bomb.”