

## **Straight Talk About Anthrax**

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Anthrax occurs naturally in the environment, especially in livestock grazing areas and in agricultural areas. Spores have also been found in industrial areas where animal hides; animal hair or wool is processed. Studies done on workers in these industries have given us a good understanding of how anthrax infections occur, and how to diagnose and treat anthrax infections. A person with an anthrax infection has never passed that infection to another. Anthrax infections are not contagious.

As of this date, all of the reported anthrax terrorist acts have involved the distribution of a powder through the mail to high profile media, military or political targets to create fear and anxiety in the general population. There have been no credible reports of anthrax spores spilled on floors in school buildings or school buses, in ordinary homes, or in shopping malls. Anthrax spores have not been reported to be dusted onto objects, since that action would not result in the accumulation of enough spores to cause infection.

Two forms of anthrax infection are of concern. The more severe- inhalation anthrax, an infection of the lungs, and the less severe- cutaneous anthrax, an infection of the skin. The body has some natural protection against anthrax. The lungs are able to "decontaminate" several hundred spores on a routine, daily basis, or several thousand spores (some estimate 10,000) at a time on a non-routine basis.

Inhalation anthrax, which is the type of anthrax that caused several fatalities, is the most serious. If untreated, approximately 90% of inhalation anthrax infections are fatal. The chances of survival improve if the number of spores inhaled is relatively small, since the body can handle thousands of spores with no infection at all. Early treatment before symptoms start increase survival even more.

Cutaneous anthrax, an infection of the skin, is easily recognized and treated when it develops. Almost 80% of people infected with a skin infection will survive with no treatment at all. With proper treatment almost all those infected with the cutaneous form will fully recover. Unbroken skin will not get infected even if there are anthrax spores lying on it. Since this is the case, no preventative antibiotics are necessary even if there are spores lying on the unblemished skin. If you think you have anthrax spores on your skin, the Centers for Disease Control (CDC) recommends washing your hands with soap and water, and taking a shower at home while washing your clothes with household detergent.

The media reports about people who "tested positive" for anthrax after a suspicious letter is opened. This means many things, such as, an anthrax spore was detected on unbroken skin, or an anthrax spore was found in a person's nose, or a person had developed antibodies to anthrax, indicating that he or she had been infected in a period in the past and is now immune to further disease.

Realistically, our bodies' own defenses protect us against infection every day. The inhalation of thousands of anthrax spores is necessary to cause inhalation anthrax disease.

Terrorists must deliver powder right in someone's nose - in a letter. So anthrax powder on the floor doesn't present a great threat. Floors and environmental surfaces are easily cleaned with bleach or other disinfectants. Many hoaxes have been perpetrated

during the last several weeks using baby powder, cleansers, and other substances. These hoaxes are violations of federal laws. A Newburgh prankster, who admitted to applying a "couple of shakes" of baby powder into another person's paycheck has been indicted in federal court because he knew his stunt would be taken as an anthrax attack. He faces a life sentence when convicted since the powder spilled out of the envelope in a Pine Bush bank. The bank was closed while authorities investigated and decontaminated the bank building.

Be vigilant but avoid the panic sought by many Terrorist Organizations, since: What we have, in almost all cases, experienced in New York is an epidemic of concern and anxiety, not anthrax attacks or an outbreak of anthrax disease. It is estimated that there is a 100 million times greater chance of dying prematurely from high blood pressure disease than from anthrax infection.

When information is received about powder in a location, think logically about the location of the call. Powder in an envelope in the U. S. Military Academy at West Point is a credible threat. Powder lying on the floor of a public school building is most likely a hoax by a student wanting a day off or debris left by a thoughtless maintenance worker not cleaning the area after completing a work order. How likely is it that the substance is actually anthrax powder? Think!

If you think you have a condition that may place you at special risk, consult a doctor or counselor. These medical professionals are now receiving special training on anthrax and weapons of mass destruction from CDC, State, and County Medical sources.

This article prepared from CDC and New York State & City, Monroe and Orange Counties' Health Department source documents.