

WHAT IS THE THREAT?

Biological weapons are maintained by several countries around the world. Use of these weapons could cause widespread illness among unprotected personnel. Anthrax is the biological weapon most likely to be encountered because it is:

- Highly lethal
- Easy to produce in large quantities
- Relatively easy to develop as a weapon
- Easily spread over a large area
- Easily stored and dangerous for a long time

WHAT IS ANTHRAX?

Anthrax is a disease normally associated with plant-eating animals (sheep, goats, cattle, and to a lesser degree swine). It is caused by the bacteria *Bacillus anthracis*. Once common where livestock were raised, it is now controlled through animal vaccination programs. Anthrax still occurs in countries where animals are not vaccinated, mainly in Africa and Asia. It does occur infrequently in many countries, including the United States. Human infection with anthrax usually results from direct contact with infected animals, or animal products such as wool, meat or hides. However, when anthrax is used as a biological weapon, people become infected by breathing anthrax that is released into the air. Inhalation anthrax is the disease that results from breathing anthrax. Under expected battlefield conditions, experts believe you can inhale enough anthrax spores to kill you in one deep breath. Symptoms of inhalation anthrax can begin as early as 24 hours after breathing the spores. Initial symptoms include: fever, cough, and weakness and usually progress to breathing problems, shock, and death.

WHY VACCINATE?

Vaccines prevent illness by stimulating the body's natural disease-fighting abilities. They are among the most powerful tools developed by modern medicine for keeping people healthy. Vaccines are routinely used in the United States to protect against diseases such as mumps, measles, whooping cough, and polio. As part of medical protection, personnel are given additional vaccines to protect against naturally occurring diseases encountered when overseas, such as typhoid, hepatitis, and yellow fever. Vaccines also help protect against biological weapons. The Department of Defense has established a vaccination program to protect personnel against anthrax.

WHAT IS THE ANTHRAX VACCINE?

Anthrax vaccine is a sterile product made from filtrates of cultures of a strain of the anthrax organism that does not cause disease. The vaccine contains no living or dead anthrax organisms. The anthrax vaccine is not new. Human anthrax vaccines were developed in England and the U.S. in the 1950s and early 1960s. The anthrax vaccine that Department of Defense personnel will receive was licensed by the FDA in 1970 and has been manufactured by the Michigan Biologic Products Institute (MBPI) under Establishment License No. 99. BioPort purchased MBPI in September of 1998 and will continue to manufacture the anthrax vaccine.

It has been safely and routinely administered in the United States to veterinarians, laboratory workers, and livestock handlers for more than twenty-five years.

FACTS ABOUT THE ANTHRAX VACCINE

- Vaccination is a critical part of protection against infection
- Manufactured in the United States
- Safely used for more than 25 years
- As with other vaccinations, pain may occur at the site of injection
- Temporary side effects (sore arm, redness, slight swelling, and a small nodule or knot under the skin) may occur.
- No known long term side effects
- Six shots are required over 18 months, followed by an annual booster

COMMONLY ASKED QUESTIONS & ANSWERS

Q: Why are Service members getting this vaccine?

A: Anthrax is a lethal weapon that could be used against deployed personnel. Vaccination before exposure is a critical part of the protection against this weapon.

Q: Is the vaccine all that is needed to protect against inhalation anthrax?

A: Vaccination is a vital component of Force Health Protection. Being fully vaccinated greatly increases the chances of surviving an exposure to anthrax. Force Health Protection is further enhanced through sophisticated early warning and detection systems, health surveillance measures, and the proper wear of the protective mask and overgarments.

Q: Is this an experimental vaccine?

A: No, Anthrax vaccine has been FDA approved since 1970.

Q: Is this vaccine safe?

A: Yes, this vaccine has been safely and routinely administered in the U.S. to veterinarians, laboratory workers, and livestock handlers since 1970. However, as with other vaccines, minor reactions and, to a lesser extent, more serious adverse reactions may occur in a small number of people.

Q: Is there anyone who should not receive the vaccine?

A: Anthrax vaccine should be administered only to healthy men and women from 18-65 years of age because investigations to date have been conducted exclusively in that population.

Q: What if I am pregnant, planning on becoming pregnant, or breast feeding?

A: Anthrax vaccine, like other inactivated vaccines, is not expected to cause fetal harm. No evidence exists that indicates any other adverse reproductive effects including fertility. Prudent medical practice is to defer all immunizations during pregnancy unless clearly needed. Therefore, pregnant women should not receive the anthrax vaccine unless anthrax exposure occurs or is imminent. Service members who believe that they may be pregnant are instructed to inform their health care provider. Anthrax immunizations will be deferred until the pregnancy is complete. A woman does not need to delay becoming pregnant or stop breastfeeding after receiving a dose of anthrax vaccine.

Q: What other medical conditions could affect the use of this vaccine?

A: If a person has an active infection or is taking some prescription medications, a decision to give the vaccine will be made on a case by case basis.

Q: The anthrax vaccine was administered to personnel deployed in the Gulf War. Has the anthrax vaccine been linked to illnesses among Gulf War veterans?

A: No. Several national scientific groups, including the National Academy of Sciences, have addressed this issue and have found no evidence to link anthrax vaccine with illnesses among Gulf War veterans.

Q: How many shots will be given?

A: Six shots, three given two weeks apart followed by three additional injections given at 6, 12 and 18 months. An annual booster shot is required to maintain ongoing immunity.

Q: What are the side effects?

A: The vaccine has been in use since 1970, and since that time there have been no long-term side effects identified or reported. However, as with other vaccinations or medications, pain may occur at the site of injection. Temporary side effects (sore arm, redness, and slight swelling) may occur. Small, non-tender nodules or knots under the skin at the site of injection occur in about 30% of vaccine recipients. These nodules usually disappear within a few weeks, but in some cases the process takes several months.

Q: How can I get more information about anthrax vaccine?

A: Information can be obtained from your local command or supporting medical facility. In addition, more information on the anthrax vaccine can be accessed at the website:

http://www.defenselink.mil/other_info/protection.html#Anthrax

WHAT EVERY FAMILY MEMBER NEEDS TO KNOW ABOUT THE ANTHRAX VACCINE



Anthrax is a highly lethal biological weapon

"Vaccination against anthrax is a safe, prudent force protection measure."

**William S. Cohen
Secretary of Defense**