

INFORMATION PAPER

SUBJECT: Anthrax Infections and Anthrax Vaccine

1. Purpose. To describe anthrax infections and the vaccine to prevent them.

2. Facts.

a. Microbiology. Anthrax is a large spore-forming bacteria that produces toxins. The spores are resistant to heat, light, and harsh environmental conditions. The bacteria can cause three types of disease, depending on how the bacteria enter the body: cutaneous, gastrointestinal, or inhalational anthrax.

b. Disease. The symptoms and incubation period of human anthrax vary depending on the route of transmission of the disease. In general, symptoms begin within 7 days of exposure.

c. Vaccine. Anthrax vaccine is distributed under the brand name *BioThrax* and reduces disease incidence by 92.5%. Anthrax vaccine is an inactivated vaccine that principally contains the protective antigen (PA) protein. The Food & Drug Administration (FDA) licensed anthrax vaccine as safe and effective in November 1970.

d. Immunization. Anthrax vaccination is given as a series of six subcutaneous doses, optimally on a 0, 2-, 4-week, 6-, 12-, and 18-month schedule, with annual boosters given to sustain immunity.

e. Adverse Events. Like many vaccines, anthrax may have some side effects. It may cause more injection-site swelling than other vaccines and about 1 in 100 vaccines report swelling at the vaccination site greater than 5" in diameter. The rate of side effects that occur away from the injection site (e.g., rashes, headaches, joint aches, malaise, muscle aches, nausea, chills, and fever) is about the same as for other vaccines. Lumps at the injection site occur commonly, can last a few weeks, and go away on their own.

f. DoD Policy. Anthrax vaccinations are mandatory for uniformed personnel, emergency essential and comparable employees or contractors deployed (or deploying within 120 days) to U.S. CENTCOM or Korea areas of responsibility (AOR) for 15 or more consecutive days. Anthrax vaccinations are also mandatory for certain uniformed personnel assigned to special units (such as forward deployed forces) and units with bio-defense related missions. Uniformed and civilian personnel no longer deployed to U.S. CENTCOM or Korea may continue the series on a voluntary basis. Vaccinations are also voluntary for uniformed and civilian personnel and family members who have received at least one dose previously.

3. The most current information on AVIP is available at: www.vaccines.mil/anthrax & www.anthrax.mil

RELEASED BY:
BG JOSEPH CARVALHO, JR.
MNFI Surgeon

ACTION OFFICER:
CDR Michael Engen
MNFI, Force Health Protection