

### Can smallpox vaccine cause serious side effects ?

- In the past, about 1000 out of every 1,000,000 (1 million) people vaccinated for the first time experienced reactions that, while not life-threatening, were serious. Most involved spread of vaccine virus elsewhere on the body.
- In the past, between 14 and 52 people out of 1,000,000 people vaccinated for the first time experienced potentially life-threatening reactions. These reactions included serious skin reactions and inflammation of the brain (encephalitis). One or two people in 1 million who receive smallpox vaccine may die as a result.
- Serious side effects are generally more rare after revaccination, compared to first vaccinations. We will try to reduce the risk of side effects by actively looking for and exempting people whose immune system is not working fully and people who have or had certain skin conditions.

### Can these serious reactions be treated ?

- The severe skin reactions can be treated with injections of human antibodies known as “vaccinia immune globulin” or VIG. Viruses in the eye can be treated with eye drops or VIG.

### What will happen to a servicemember who refuses a vaccine ?

- We begin with the assumption that any servicemember covered by DoD policy who refuses vaccination may be uninformed about the facts related to the deadly effects of the smallpox virus and the protection afforded by the vaccine. Our first action with those who might refuse the vaccine will be to determine their concern and provide additional factual information.
- This is a force protection issue. If a servicemember continues to refuse the vaccine, then a commander will manage the situation as he or she would for any failure to obey a lawful order, including educating the member about the smallpox vaccine as appropriate.
- Military and civilian judges uniformly have found orders for members to be vaccinated to be lawful orders.

### Will servicemembers still be deployable if they have not received the smallpox vaccine ?

- Yes, if they are in one of the groups that should not receive the smallpox vaccine, they will still be deployable. In the event of an actual smallpox attack, their vaccination status will be reevaluated.

### How should a servicemember care for the smallpox vaccination site ?

- Three Key Points: Don't touch any smallpox vaccination site. Wash your hands frequently. Don't let other people touch your site or materials that touched it.
- Vaccine virus is present at the vaccination site for about 14 to 21 days, until the scab falls off. This means other people can get infected if they come in contact with virus from your arm. You can spread the virus if you touch your blister and then touch another person.
- Most vaccination sites can be left unbandaged, especially when not in close contact with other persons. When in close contact with others, wear sleeves covering the site and/or use an absorbent bandage to make a touch-resistant barrier. Dispose of bandages in sealed or double plastic bags. You may carefully add a little bleach to the plastic bag, if desired, to kill the virus.
- Keep the site dry. Airing will speed healing. Do not use creams or ointments because they will delay healing. Long-sleeved clothing worn during the day and at night can protect the site from dirt. Launder clothing and linens that touch the site in hot water with soap or bleach.
- Normal bathing can continue. Dry the vaccination site last, so the towel does not rub or spread virus elsewhere. Don't allow others to use that towel until laundered. Don't use public towels unless laundry workers are alerted that you were vaccinated. Use a waterproof adhesive bandage if you exercise enough to cause sweat to drip. Avoid swimming and hot tubs.
- Take good care of your vaccination site. Keep this sheet and read it again from time to time.

# Department of Defense Smallpox Information



**“...I have a message for our military: Be Ready.”**

President Bush, September 20, 2001,  
speech to the Joint Session of Congress  
following attacks on America

Contact us at [vaccines@amedd.army.mil](mailto:vaccines@amedd.army.mil) or call 877-GET-VACC (877-438-8222)

Visit our website at [www.vaccines.army.mil/smallpox.asp](http://www.vaccines.army.mil/smallpox.asp)

December 12, 2002



# Department of Defense Policy

The Department of Defense Smallpox Vaccination Program implements a plan to prepare for and respond to possible smallpox attacks. DoD's Smallpox Vaccination Program is consistent with FDA guidelines and the best practice of medicine. This program supports the national smallpox preparedness plans, but is tailored to the unique requirements of the Armed Forces.

DoD will ensure preparedness by immunizing personnel:

- Based on their occupational responsibilities. These include smallpox response teams and hospital workers.
- Other designated forces having critical mission capabilities, including those forces essential to accomplishing the U.S. Central Command's mission.

## Frequently Asked Questions

### What is smallpox ?

- Smallpox is a very serious disease; it is contagious and sometimes fatal. A virus called variola causes smallpox. Smallpox spreads slowly, usually by face-to-face contact for an hour or more with a contagious person. Smallpox can be spread by contact with inanimate objects (such as clothing, towels, linens), but this would be uncommon.
- Smallpox can cause:
  - A severe rash covering the whole body that can leave permanent scars
  - High fever
  - Severe headache or body ache
  - Death (in about 30 percent of infected people)
  - Blindness in some survivors
- The incubation period for smallpox is about 12 days (range: 7 to 17 days) after exposure. Initial symptoms include high fever, fatigue, headache and body ache. A characteristic rash, most prominent on the face, arms, and legs, follows in 2 to 3 days. The rash starts with flat red lesions that evolve at the same rate. These lesions fill with pus and begin to crust early in the second week. Scabs develop, then separate, and fall off after about 3 to 4 weeks.
- People with smallpox become contagious once a rash appears. This rash is preceded by a fever greater than 101F (38.3C). A person stays contagious until the last smallpox scab falls off.
- In 1980, the World Health Organization declared the disease was declared eradicated following worldwide vaccination programs.

### Why get vaccinated ?

- Smallpox vaccination is the best way to avoid being infected with smallpox. Up to the 1970's, millions of people around the globe received smallpox vaccine. Smallpox vaccine is still used to protect a small number of people who work with vaccinia virus or similar viruses.
- Authorities are concerned that terrorists or governments hostile to the United States may have some variola virus. If so, they could use it as a biological weapon in bombs, sprays or other methods. People exposed to variola virus can be protected by vaccinia (smallpox) vaccine.
- After the Cold War, we became aware of the former Soviet Union's massive biological warfare capability involving anthrax, smallpox and other biological warfare agents.
- There is no proven treatment for the smallpox disease, but research to evaluate new antiviral medications is ongoing. Patients with smallpox can benefit from supportive therapy (intravenous fluids, medicine to control fever or pain, etc.) and antibiotics for bacterial infections that result from the skin problems caused by smallpox.

### Is smallpox contagious ? How does smallpox spread ?

- Yes, smallpox is contagious. The most common way to transmit smallpox would be from person-to-person. People infected with smallpox exhale small droplets that carry the virus to the nose or mouth of close contacts.
- The greatest risk comes from prolonged close contact (six feet or less) for one or more hours, with an infected person, especially one who is coughing.
- Indirect contact is less efficient at spreading the virus, but infection still can occur via fine-particle aerosols or inanimate objects carrying the virus. For example, contaminated clothing or bed linen could spread the virus.
- People are most infectious during the first week of the rash, because that is when the largest amount of virus is present in saliva. However, A person is contagious once a rash appears. This rash is preceded by a fever greater than 101F (38.3C). A person stays contagious until the last smallpox scab falls off.

### What is the smallpox vaccine ?

- The smallpox vaccine does not actually contain smallpox virus. Smallpox vaccine is made from a virus called vaccinia. Vaccinia virus is similar to the smallpox (variola) virus. Smallpox vaccine cannot cause smallpox.
- People given the vaccinia (smallpox) vaccine become protected against smallpox. They become immune to both vaccinia virus and variola virus.
- Getting smallpox vaccine *before* exposure will protect about 95 percent of people from getting smallpox. Getting the vaccine *within 3 days after* exposure will prevent or reduce the severity of smallpox in most people. Vaccination 4 to 7 days after exposure likely offers partial protection.
- Solid protection lasts 3 to 5 years after the first vaccination. Solid protection after revaccination lasts about 10 years. Partial protection lasts longer, but people need to be revaccinated if too many years have passed.

### Who should not get the smallpox vaccine ?

- People whose immune system is not working fully (due to disease, medication, radiation). Examples: HIV/AIDS, cancer, organ transplant and immune deficient patients.
- People diagnosed with eczema or atopic dermatitis now or earlier in life.
- Some people with other current skin conditions such as burns, impetigo, contact dermatitis, chickenpox, shingles, psoriasis, or uncontrolled acne, until the condition clears up.
- People with a household contact who meets any of the criteria above.
- Pregnant women and breastfeeding mothers.
- Anyone who had problems after previous doses or is allergic to the vaccine or any of its components.
- We will actively look for and exempt people who should not get smallpox vaccine. The physicians and health-care providers administering the vaccine will decide if people should be medically exempted from smallpox vaccination, according to CDC, FDA and other expert recommendations.
- However, people who have been directly exposed to the smallpox virus should get the vaccine, regardless of their health status.

### What should servicemembers expect at the vaccination site ?

- If the vaccination is successful, a red and itchy bump develops at the vaccine site in three or four days. Then, in the first week, the bump becomes a large blister and fills with pus. During the second week, the blister begins to dry up and a scab forms. The scab falls off in the third week, leaving a small scar. People who are being vaccinated for the first time have a stronger reaction than those who are being revaccinated.
- If someone does not get the expected vaccination site reaction, they need to be revaccinated. If someone has a question or concern about the smallpox vaccination site they should contact their primary-care manager, medical department representative or their healthcare provider.
- Virus is present on the skin at the vaccination site until the scab falls off. Be careful not to touch it, so you don't spread the virus elsewhere, especially to the eyes, nose, mouth, or genitalia.