

Department of Defense

# Smallpox Vaccination Program 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.smallpox.mil](http://www.smallpox.mil) January 14, 2004*

# 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
- After exposure, it takes between 7 and 17 days for symptoms of smallpox to appear (average incubation time is 12 to 14 days). During this time, the infected person feels fine and is not contagious. The symptoms of smallpox begin with high fever, head and body aches, and sometimes vomiting. A rash follows that spreads and progresses to raised bumps and pus-filled blisters that crust, scab, and fall off after about three weeks, leaving a pitted scar.
- 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 is contagious until the last smallpox scab falls off.
- Natural cases of smallpox have been eradicated from the Earth. The last natural case of smallpox was recorded in 1977. In 1980, the World Health Organization declared the disease eradicated following worldwide vaccination programs.

### Why get vaccinated ?

- Smallpox vaccination is the best way to prevent smallpox. Up to the 1970's, millions of people around the globe received the same smallpox vaccine being used today. Smallpox vaccine has long been used to protect a small number of people who work with vaccinia virus or similar viruses.
- Terrorists or governments hostile to the United States may have, or could obtain, some of the variola virus that causes smallpox disease. If so, these adversaries could use it as a biological weapon. This potential along with an appreciation for the potentially devastating consequences of a smallpox attack, suggests that we should take prudent steps to prepare.
- 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. Smallpox normally spreads from contact with infected persons.
- Generally, direct and fairly prolonged face-to-face contact is required to spread smallpox from one person to another. 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 exposure (within 6 feet) to an infected person.
- Indirect contact is less likely to transmit 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, but a person with smallpox is sometimes contagious with the onset of fever. The infected person is contagious until the last smallpox scab falls off.

## What is the smallpox vaccine ?

- The smallpox vaccine is the best way to prevent smallpox. The vaccine is made from a virus called *vaccinia*, which is another “pox”-type virus related to smallpox. Smallpox vaccine cannot cause smallpox.
- The vaccine helps the body develop immunity to smallpox. Vaccine recipients 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 of exposure* will prevent or significantly reduce the severity of smallpox in the vast majority of people. Vaccination 4 to 7 days *after* exposure likely offers some protection from the disease or may modify the severity of disease.
- Solid protection lasts 3 to 5 years after the first dose. Protection lasts 10 years after subsequent doses. Partial protection lasts longer, but people need to be revaccinated if too much time has 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.
- Pregnant women.
- People with a household contact who meets any of the criteria above.
- People with serious heart disease (such as angina, heart attack, coronary artery disease, congestive heart failure, stroke, “mini-strokes,” other cardiac condition).
- People with 3 cardiac risk factors (smoking, high blood pressure, high cholesterol, diabetes, family history).
- People taking steroid eye drops or ointment or had recent eye surgery.
- Breastfeeding mothers.
- Anyone who had problems after previous doses or is allergic to the vaccine or any of its components.
- Women should avoid getting pregnant for 4 weeks after smallpox vaccination.
- However, people who have been directly exposed to the smallpox virus should get the vaccine, regardless of their health status (unless extremely immune suppressed).

## 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 after 2-4 weeks, leaving a small scar. People who are being vaccinated for the first time may have a stronger “take” (a successful 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.

## Can smallpox vaccine cause serious side effects ?

- In the past, about 1,000 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). From past experience, one or two people in 1 million who receive smallpox vaccine may die as a result.
- Serious side effects generally more rare after revaccination, compared to first vaccinations. Medical experts believe that with careful screening, monitoring and early intervention the number of serious adverse reactions can be minimized.
- After the first 500,000 military smallpox vaccinations through December 2003, few serious reactions occurred. Some first-time vaccinees had chest pain due to myocarditis and/or pericarditis (inflammation in or around the heart). These cases ranged from mild to serious. One case of lupus-like illness may have been triggered by vaccination.
- A few heart attacks, some fatal, have been reported. At this time, they are not believed to be caused by the vaccine. DoD medically exempts people with heart conditions. Further investigation is underway.

## 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.
- 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, but don't touch or scrub the site. 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.

