VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment
www.vdh.state.va.us

Smallpox Vaccine Fact Sheet

What is the smallpox vaccine?
The smallpox vaccine is a live virus vaccine made from a virus called *vaccinia,* which is another "pox"-type virus related to smallpox. The smallpox vaccine helps the body develop immunity to smallpox. The vaccine does not contain the smallpox virus and cannot give you smallpox.

What is the length of protection?
Past experience indicates that the first dose of the vaccine offers protection from smallpox for three to five years, and perhaps as long as 10 years or more. If a person is vaccinated again later, immunity lasts even longer. Historically, the vaccine has been effective in preventing smallpox infection in 95 percent of those vaccinated.

Can vaccination after exposure prevent the disease?
Vaccination within 3 days after exposure will prevent or significantly lessen the severity of smallpox symptoms in most people. Vaccination 4 to 7 days after exposure likely offers some protection from disease or may lessen the severity of disease.

Who should not get the smallpox vaccine?
People with any of the following conditions **or people who live with someone with the following conditions** should not get the smallpox vaccine **unless exposed to the smallpox virus**:

- Weakened immune systems (HIV, AIDS, leukemia, lymphoma, other cancers, cancer chemotherapy, radiation therapy, high-dose corticosteroid therapy, and other immune disorders)
- Transplant recipient
- Any history of eczema or atopic dermatitis (skin disease characterized by itchy, inflamed skin)
- Active skin conditions (e.g., burns and other wounds, impetigo, chickenpox, shingles, contact dermatitis, severe acne, herpes, psoriasis) until these conditions have resolved
- Women who are pregnant or planning to become pregnant within one month of vaccination

In addition, people with the following should not receive the vaccine unless exposed to the smallpox virus:

- Women who are breastfeeding
- Allergic to the vaccine or any of its ingredients
- Moderate or severe short-term illness (they should wait until they recover)
- Are less than 18 years of age

What are the side effects and chances of complications from the vaccine?
The *vaccinia* virus that is contained in the smallpox vaccine may cause mild reactions, such as rash, fever and head and body aches. Since the virus in the vaccine is live, complications can occur if the vaccine site comes in contact with other parts of your body or even other people. Previous data indicates that for every one million people who receive the vaccine, about 15 will have more severe or even life threatening side effects. About one or two persons per one million people may die as a result of being vaccinated. People not recommended to receive the vaccine unless exposed may be at greater risk of severe complications.

How is the vaccine given?
The smallpox vaccine is not given with a normal hypodermic needle and is not a typical shot. The vaccine is given using a bifurcated (two-pronged) needle that is dipped into and holds a droplet of the vaccine. The needle is used to poke the skin about 15 times. The poking is not deep, but will cause a sore spot that will form a blister and eventually leave a small scar. After the vaccine is given, it is very important to carefully follow instructions to care for the vaccination site until the area has healed (up to three weeks) to avoid the complications described above.

Is the smallpox vaccine available?
In 2003, volunteer health care providers and first responders will receive the smallpox vaccine as part of ongoing emergency preparedness efforts. The vaccine is currently not recommended for the general public. Routine smallpox vaccinations in the U.S. stopped in 1972. The last natural case in the world occurred in Somalia in 1977. The variola virus that causes smallpox officially exists in two laboratories, in the U.S. and Russia, but there is concern that the virus could be in the possession of others and used as a bioterrorism agent, which is why federal, state and local governments are taking precautions to prepare.

For more information, visit www.vdh.state.va.us, www.cdc.gov/smallpox, or call the CDC public response hotline at 888-246-2675 (English), 888-246-2857(Español), or 866-874-2646 (TTY). *January 9, 2003*