

**SMALLPOX VACCINE INFORMATION STATEMENT (VIS) SUPPLEMENT D****A Weakened Immune System Means You Should Not Get Smallpox Vaccine**

The smallpox vaccine is made from a live virus related to smallpox called vaccinia (not smallpox virus). The vaccine stimulates the immune system to react against the vaccinia virus, and develop immunity to it. Immunity to vaccinia also provides immunity to smallpox. For most people, live virus vaccines are safe and effective. However, people with immune system problems usually are advised to avoid live virus vaccines because their immune systems may not be able to stop the growth of the virus in their bodies. In the case of the smallpox vaccine, while the risk for severe complications for someone with a weakened immune system is unknown, there have been cases of serious reactions to the vaccine. Someone with a weakened immune system might develop a widespread, severe, vaccinia rash (generalized vaccinia), or ongoing severe skin destruction at the vaccination site (progressive vaccinia/vaccinia necrosum).

- Individuals with **suppressed immune systems should not get the smallpox vaccine.**
- Individuals who are **undergoing, or have recently undergone, medical treatment that can weaken their immune system should not get the smallpox vaccine.**
- Individuals **in close physical contact with someone who falls into these categories should not get smallpox vaccine** because of the risk it poses to that close contact. Close contacts include anyone living in your household or anyone you have close physical contact with such as a sex partner.

**What are some illnesses that can weaken the immune system?**

- HIV/AIDS
- Cancer
- Leukemia
- Lymphoma
- Multiple myeloma
- Primary Immune Deficiency disorders (such as Common Variable Immune Deficiency)
- Humoral (antibody) immunity problems (such as agammaglobulinemia or lack of normal antibodies)
- Some people with severe autoimmune diseases such as systemic lupus erythematosus (SLE) may have significant immune system suppression

**What else could cause a weakened immune system?**

Immunosuppressive medications or other treatments such as:

- High-dose oral or intravenous steroid therapy for 2 weeks or longer within the past month. (For example, with prednisone,  $\geq 2\text{mg/kg}$  per day for 2 weeks or longer within the past month is considered immunosuppressive.)

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- Cancer chemotherapy agents within the past 3 months
- Radiation therapy within the past 3 months.
- Organ or bone marrow transplant
- Medications that suppress the immune system, including steroids, some drugs for autoimmune disease, or drugs taken in association with an organ or bone marrow transplant (consult your health care provider)

**If you have questions about any of the above conditions, please consult your health care provider before being vaccinated.**

### **More on HIV/AIDS**

Up to 300,000 people in the U.S. may be infected with the HIV virus and not know it. You can have HIV infection and seem to be completely well. Although you may seem fine, if you have HIV, you are at risk for a bad reaction from smallpox vaccine. People with conditions such as HIV or AIDS that can suppress their immune system are at higher risk for having a severe skin rash or blood infection from the vaccine.

Below is a list of factors that may place you at higher risk for having HIV infection:

- Use of needles to inject anything not prescribed by your doctor
- Had an accidental needle-stick
- Had sexual contact with someone who has HIV/AIDS or has had a positive test for HIV/AIDS
- Had sexual contact with a prostitute or someone else who takes money or drugs or payment for sex
- Had sexual contact with someone who ever has used needles to inject anything not prescribed by a doctor
- For women: Had sexual contact with a man who has ever had sexual contact with another man
- For men: Had sexual contact with another man

If any of these situations apply to you, talk to your health care provider about getting tested for HIV before being vaccinated. In addition, since some people with HIV do not have these risk factors, if you have any concerns please get tested.

### **How can I learn more?**

If have any questions about whether your immune system may be weakened, consult your health care provider before getting vaccinated.

For more information, visit [www.cdc.gov/smallpox](http://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)