

# SMALLPOX VACCINE

## WHAT YOU NEED TO KNOW

### 1. WHAT IS SMALLPOX?

**Smallpox is a serious disease that can kill up to 3 out of 10 people who get it.**

Smallpox can also cause—

- a severe rash, which can leave scars when healed.
- high fever
- tiredness
- severe headaches and backaches
- blindness

Smallpox is caused by a virus called “**variola**” which spreads from person to person. Usually face to face contact lasting 3 or more hours is needed to spread smallpox from one person to another. Smallpox can also be spread through direct contact with infected body fluids or objects such as bedding or clothing that have smallpox virus on them.

Smallpox killed millions of people over centuries. Smallpox vaccination was developed in 1796. As a result, the last outbreak of smallpox in the United States was in 1949. The world’s last case of naturally occurring smallpox was in 1977. Smallpox ended in 1972.

### 2. WHAT IS THE SMALLPOX VACCINE?

Smallpox vaccine is made from a living virus called “**vaccina**”. Vaccina virus is like smallpox virus, but is less harmful.

The smallpox vaccine can **NOT** give you smallpox. The vaccine is not a shot like other vaccines. The needle is pricked into the skin a number of times in a few seconds (usually in the upper arm). The pricking is not deep, but will cause one or two drops of blood to form. The place on the skin where the vaccine is given is called the “vaccination site.”

### Getting the vaccine-----

- \* *Before exposure* will protect most people from smallpox (the vaccine is 95% effective).
- \* *Up to 3 days after exposure* can prevent the disease or at least make it less severe.
- \* *4-7 days after exposure* can still make disease less severe and decrease the chance of death.

Smallpox vaccine protects people from getting smallpox for 3 to 5 years. Protection from severe illness and death can last 10 years or more.

### IF THERE IS A SMALLPOX OUTBREAK ---

Restrictions to receiving the smallpox vaccine may NOT apply in a public emergency. Public health experts will say who should get the vaccine at that time.

### 3. WHAT SHOULD YOU EXPECT AFTER VACCINATION?

#### Normal Reactions

- Week 1:** Three or 4 days after vaccination, a red itchy bump will form at the “vaccination site”. Most times, this spot is about the size of a dime. It can be larger than 3 inches. The bump becomes a blister. It will fill with pus and then start to drain.
- A health care provider should check your vaccination site 6-8 days after you get the vaccine to make sure the vaccination worked and everything is o.k.
- Week 2:** The blister will dry up and a scab will form.
- Week 3:** The scab will fall off and leave a small scar. The lymph nodes under your arms may swell and be sore. The vaccination site may itch. You may also feel tired, have a mild fever, or muscle aches. You may not get a blister if the vaccine did not work properly or if you are already immune to smallpox. In this case, you will need to get the vaccine again. If you still do not get a blister after getting the vaccine a second or third time, a health care provider will tell you if you are, or are not considered immune.

#### What You Will Need To Do

The virus in the vaccine is alive. It can be spread from the vaccination site to other parts of your body or to other people through close physical contact. This can happen until the scab falls off.

In the past, the vaccine virus was spread from vaccinated people to others about 2 to 6 times out of every 100,000 people vaccinated for the first time (this usually happened between people who lived together).

**IF YOU DO NOT FEEL LIKE YOU CAN FOLLOW THESE INSTRUCTIONS, DO NOT GET VACCINATED.**

#### To Help Prevent Spread of the Virus

- \*Cover the area loosely with a gauze bandage held in place with first aid tape. While at work, health care workers should also cover the gauze with a semi-permeable bandage (this type of bandage allows air to flow through but not fluids)
- \*Change the bandage often (at least every three days). After the scab falls off, put it in a plastic zip bag and throw away in regular trash.
- \*Do not touch or let others touch the site or items that have touched it such as bandages, clothes, sheets, or towels.
- \*Always **wash your hands** with soap and water or alcohol-based hand wash if you touch the site or if you touch bandages, clothes, sheets or towels that have touched the site.
- \*Keep the vaccination site dry. If the gauze bandage gets wet, change it right away. Cover your vaccination site with a waterproof bandage while bathing.
- \*Don't scratch or put ointment on the vaccination site.
- \*Don't touch your eyes, or any part of your body, or another person after changing the bandage or touching the vaccination site until you have washed your hands.
- \*Wear a shirt that covers the vaccination site and bandage. This helps protect those you have close contact with such as young children or the person you share a bed with.
- \*Don't share towels
- \*Do your own laundry. Use a separate laundry hamper for clothes, towels, sheets and other items that may come into contact with your vaccination site or pus from the site. Machine wash items that have touched the vaccination site in hot water with a detergent and/or bleach.

## 4. WHAT ARE THE RISKS FROM THE SMALLPOX VACCINE?

A vaccine, like any medicine, can cause serious problems. There is a very small risk of smallpox vaccine causing serious harm, or death.

The following information is about known reactions to smallpox vaccine. There may be other unknown side effects.

People who did not get the vaccine can also have side effects described below if they touch someone's vaccination site or items that have touched the site (like bandages, clothes, sheets or towels). Following instructions on how to care for the vaccination site (such as covering the site and washing hands) can help prevent spread of the vaccine virus to others.

<b>MILD TO MODERATE PROBLEMS</b>	<b>HOW OFTEN DID IT HAPPEN IN THE PAST?</b>
Feel sick enough to miss work	About 1 out of 10 to 20 people vaccinated
Fever of over 100 degrees F	About 1 out of 10 people vaccinated
Mild rash that gets better without medicine	About 1 out of 12 people vaccinated
Blisters on other parts of the body	About 1 out of 10,000 people vaccinated.
<b>MODERATE TO SEVERE PROBLEMS</b> <i>Call or Visit a Health Care Provider</i>	<b>HOW OFTEN DID IT HAPPEN IN THE PAST?</b>
Eye infection from touching your eye if you have vaccine virus on your hand. This can lead to loss of vision in the infected eye.	About 1 out of 45,000 people vaccinated.
Rash on entire body which usually goes away without problems	About 1 per 15,000 people vaccinated.
Inflamed heart (can be life-threatening)	About 1 out of 10,000 people vaccinated for the first time.
<b>SEVERE OR LIFE-THREATENING PROBLEMS</b> <i>Get to a Health Care Provider Immediately</i>	<b>HOW OFTEN DID IT HAPPEN IN THE PAST</b>
Severe rash on people with eczema or atopic dermatitis, which can lead to scarring or death	About 1 out of 26,000 people vaccinated
Encephalitis (severe brain swelling), which can lead to permanent brain damage or death.	About 1 out of 83,000 people vaccinated
Skin and tissue destruction starting at the vaccination site and spreading to the rest of the body, which can lead to scarring or death (usually happens in people with very weakened immune systems).	About 1 out of 667,000 people vaccinated
Vaccinia virus infection in unborn child that can lead to premature delivery, skin rash with scarring, stillbirth, or death of the child after delivery.	Very rare, less than 50 cases have been reported throughout the world in the last 100 years.

***For every million people vaccinated in the past, up to 52 people had a life-threatening reaction to smallpox vaccine and up to 2 people died.***

The numbers provided above for severe or life-threatening problems are from studies done in the 1960's when the smallpox vaccine was still routinely used in the U.S. The numbers reflect how often the problems occurred in infants, children and adults.

The numbers provided for all the other problems are from recent studies and experiences vaccinating members of response teams and the military.

## **5. WHAT IF SOMEONE HAS A MODERATE, SEVERE OR LIFE-THREATENING PROBLEM?**

### **Within a Few Minutes to a Few Hours of Getting the Vaccination, Watch for-**

- \*Trouble breathing, hoarseness or wheezing
- \*Hives, pale skin, weakness, a fast heartbeat or dizziness

These could be signs that you are having an allergic reaction to the vaccine.

### **For the Next 3 to 4 Weeks, Keep Watching For—**

- \*A vaccination site that is not healing.
- \*A rash or sore on other parts of your body.
- \*An eye infection.
- \*A lasting headache or fever.
- \*Confusion, seizures or trouble staying awake.
- \*Chest pain, shortness of breath, rapid or unusual heartbeat or unusual fatigue.
- \*Any unexpected health problem.

### **What Should You Do?**

If you or a close contact have any of these problems, or if you are concerned about any health problem that you have after vaccination—

- Call or go to a health care provider right away.
- Tell the health care provider that you received the smallpox vaccine and when.
- Ask your doctor or nurse to file a Vaccine Adverse Event Report (VAERS Form) and contact the health department. You can also file a report yourself by visiting the VAERS website at [www.vaers.org](http://www.vaers.org) or by calling 1-800-822-7967.
- Call Farmington Valley Health District at 676-1953

### **Treating Serious Problems**

There are two drugs that may help people who have certain serious side effects from the vaccine: Vaccinia Immune Globulin (VIG) and cidofovir. These drugs are not licensed for this purpose and may also cause side effects.

If you decide to get the smallpox vaccine, please **KEEP THIS DOCUMENT** for one month following vaccination.

### **Cost of Treating Serious Problems**

In the rare event that you have a serious reaction to the smallpox vaccine, a federal program has been created to help pay for related costs of medical care and lost wages. This program was created to compensate certain people, such as health care workers and emergency responders. It will also cover certain people injured as the direct result of exposure to vaccinia through contact with certain people who received the smallpox vaccine (or with the contact of such vaccine recipients). The program covers related costs of medical care and lost wages (usually starting after five days of missed work) after other available coverage, such as workers' compensation or health insurance, has been used. The Department of Health and Human Services will make more information about this program available soon, including how to request benefits and/or compensation. For more information contact Paul T. Clark, Director, Smallpox Vaccine Injury Compensation Program, Office of Special Programs, **888-496-0338** or go to [www.hrsa.gov/smallpoxinjury](http://www.hrsa.gov/smallpoxinjury).

### **HOW CAN YOU LEARN MORE?**

- \* Ask your health care provider. They can give you more information, show you the vaccine package insert or suggest other sources of information.
- \* Call your local or state health department.
- \* Visit the Center for Disease Control and Prevention (CDC) smallpox website: [www.cdc.gov/smallpox](http://www.cdc.gov/smallpox)
- \* Contact the (CDC):  
Call **1-888-246-2675** (English)  
Call **1-888-246-2857** (Español)  
Call **1-866-874-2646** (TTY)