



## MACOMB COUNTY HEALTH DEPARTMENT

# SMALLPOX

## FREQUENTLY ASKED QUESTIONS (FAQ)

### What is smallpox?

- Smallpox is an acute, contagious and sometimes fatal disease caused by the variola virus.
- The last naturally acquired case of smallpox in the world occurred in 1977.
- Except for laboratory stockpiles, the variola virus has been eliminated.
- However, there is concern that the variola virus could be used as an agent of bioterrorism.

### If smallpox is released into the environment, how long will it survive?

If an aerosol release of smallpox occurs, 90% of the virus matter will be inactivated or dissipated in about 24 hours.

### What are the signs and symptoms of smallpox?

- A high fever (101-104°F), head and body aches, and sometimes vomiting generally appear 7 to 17 days following exposure.
- A rash, most prominent on the face, arms, and legs, follows in two to three days and will usually spread to all parts of the body within 24 hours.
- The rash's flat red bumps evolve into raised bumps that become pus-filled blisters that crust early in the second week. Scabs develop and fall off after about three weeks, leaving pitted scars.
- As the rash appears, the fever usually falls and the person may start to feel better.

### How do people get smallpox?

- Generally, direct and fairly prolonged face-to-face contact is required to spread smallpox from one person to another.
- A person with smallpox is sometimes contagious with onset of fever, but the person becomes most contagious when the rash appears. The infected person is contagious until the last smallpox scab falls off.
- Contaminated clothing or bed linen can also spread the virus.



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**How do people get smallpox (continued)?**

- Smallpox is not known to be spread by insects or animals.
- It is rare for smallpox to be spread in the air in enclosed settings, such as buildings, busses, and trains.

**What should people do if they suspect they have been exposed to smallpox or suspect that smallpox has been released in their area?**

- Report suspected cases of smallpox or a suspected release of smallpox to your local health department.
- The local health department is responsible for notifying the state health department and local law enforcement. The state health department will notify the Centers for Disease Control and Prevention (CDC), Michigan State Police Emergency Management, and the Michigan office of the Federal Bureau of Investigation (FBI).

**What is the difference between smallpox and chickenpox?**

Smallpox is sometimes confused with chickenpox, but several features of these diseases are significantly different:

- The initial symptoms of smallpox are much more severe than those of chickenpox i.e., high fever, severe muscle aches.
- The smallpox rash is most common on exposed portions of the body: face, forearms, wrists, palms, lower legs, feet, and soles. Chickenpox is most common on covered areas of the body.
- Smallpox rash lesions tend to be at the same stage of development, and there is only one eruption of pox lesions. Chickenpox lesions may be in different stages of maturation and may erupt more than once.
- Smallpox lesions tended to be deeper in the skin than chickenpox lesions, hard to the touch, and the vesicles are tough to break.

**What should you do when you have been exposed to smallpox?**

- Immediately contact your local health department to receive guidance on how to isolate yourself (either at home or a designated care site) to minimize the risk of exposure to others. Public health authorities will discuss with you the need for vaccination.
- If you have contracted the disease, symptoms will appear in 7 to 17 days after exposure.
- Individuals should stay isolated and monitor themselves daily for the development of a temperature higher than 101°F (38°C).

## How can we stop the spread of smallpox after someone comes down with it?

Vaccine and isolation are the strategies for stopping the spread of smallpox.

- Patients will be placed in medical isolation so that they will not continue to spread the virus.
- People who have come into close contact with smallpox patients will be notified to receive a vaccination and to be closely watched for symptoms of smallpox. If the vaccine is given within four days after exposure to smallpox, it can lessen the severity of illness or even prevent it.

## Is there any treatment for smallpox?

- There is no proven treatment for smallpox, but research is ongoing to evaluate new antiviral agents.
- Patients with smallpox can benefit from supportive therapy, such as intravenous fluids, medicine to control fever or pain, and antibiotics for any bacterial infections that may occur.

## Is smallpox fatal?

- The majority of patients who contract smallpox recover, but death may occur in up to 30% of cases.
- Vaccine administered after exposure has been shown to provide significant protection against death from smallpox.

## Will antibiotics protect me against smallpox?

- Antibiotics will not fight smallpox.
- Getting the vaccine within a few days of exposure to the virus may lessen the severity of illness or prevent disease.

## What is the smallpox vaccine, and is it recommended?

- The vaccine against smallpox is made with a live virus related to smallpox called the vaccinia virus. It is not made with the smallpox virus.
- In the absence of known cases of naturally-occurring smallpox, vaccination is not recommended because the risks from the vaccine outweigh the risk of getting the disease.

## What are the risks of receiving the smallpox vaccine?

- Adverse reactions range from mild rashes to rare fatal encephalitis and disseminated vaccinia.
- Smallpox vaccine should not be administered to persons with a history of eczema or other skin conditions, pregnant women, or persons with immunodeficiency diseases or suppressed immune systems as occurs with leukemia, lymphoma, generalized malignancy, or solid organ transplantation. People with heart conditions are also cautioned.

**If I am concerned about a smallpox attack, can I go to my doctor and request the smallpox vaccine?**

- The vaccine is not recommended for routine use. Routine vaccination in the United States ended in 1972.
- The CDC maintains an emergency supply of the vaccine which will be distributed in the event of a smallpox release.

**If people got the vaccination in the past when it was used routinely, will they be immune?**

- Not necessarily, since the level of immunity, if any, among persons who were vaccinated before 1972 is uncertain. Most estimates suggest immunity lasts three to five years. Immunity can be boosted effectively with a single revaccination.
- Prior infection with the disease grants lifelong immunity.

**Should you get the smallpox vaccine if you're immuno-compromised?**

No, immuno-compromised individuals should not get the smallpox vaccine, unless there is a smallpox outbreak and the patient's physician and public health authorities have discussed the risks and benefits with the patient. Vaccinations could cause deaths in people with weakened immune systems, those undergoing chemotherapy, organ transplant patients, and those with AIDS. There is no need to take that risk until there is evidence of an outbreak.

**Are some people still receiving the smallpox vaccination today?**

Yes, vaccination is recommended for laboratory workers and others who directly handle virus cultures or contaminated animals. Vaccination is not recommended for people who do not directly handle these virus cultures or who do not work with contaminated animals.

**Are health responders being vaccinated against smallpox?**

Vaccinating key public health and medical personnel will ensure Michigan is well prepared to quickly respond in the event of a smallpox disease outbreak.

- The first group of individuals considered for voluntary pre-event smallpox vaccination include the vaccinators themselves and public health and health care response teams.
- Smallpox vaccine has also been offered to other health workers, emergency responders, police and fire fighters in Michigan who will be called upon to respond in the event of a smallpox outbreak.

## Are there risks to health care volunteers receiving the smallpox vaccine?

If smallpox becomes a threat, all persons exposed and potentially exposed should be vaccinated.

Individuals who should NOT be vaccinated as a pre-event measure include people with the following conditions AND those who live with someone who has such a condition:

- Expectant mothers or nursing mothers
- People with eczema or atopic dermatitis, or a history of either
- People being treated for cancer
- People who are HIV-positive
- People who have had an organ transplant

Individuals who should not receive the smallpox vaccine also include:

- People using steroid eye drops
- People diagnosed as having heart conditions
- People who have a moderate or severe short-term illness
- Anyone who is less than 18 years of age

Also, a person with three or more of the following risk factors should not receive the smallpox vaccine:

- high blood pressure
- high blood cholesterol
- diabetes
- a first-degree relative who had a heart condition before the age of 50
- cigarette smoking

If offered the smallpox vaccine, individuals should tell their immunization provider if they have any of the above conditions, or even if they suspect they might.

**Again, people who have been directly exposed to the smallpox virus should get the vaccine, regardless of their health status.**

## Is every American going to be vaccinated for smallpox?

- If there is a smallpox outbreak, vaccinations may only be needed in the area around the smallpox cases to contain the spread.
- If health officials are not able to contain the outbreak, vaccination of a wider group of people may be required.

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**If the decision is made that everyone needs to be vaccinated, how will this occur and who will pay for it?**

There will be a systematic administration of the vaccine that will be paid for by the United States government. Local, state and federal pharmaceutical distribution plans are in place and will be coordinated.

**How many people would have to get smallpox before it is considered an outbreak?**

- One suspected case of smallpox is considered a public health emergency.
- Smallpox surveillance in the United States includes detecting suspected cases, making a definitive diagnosis with rapid laboratory confirmation at CDC, and preventing further smallpox transmission.
- A suspected smallpox case should be reported immediately by telephone to state or local health officials.

**What will be done if there is a smallpox outbreak?**

Vaccine and isolation are the strategies for stopping the spread of smallpox.

- If an outbreak occurs, the first step will be to properly isolate those with the disease.
- All people with close contact to smallpox patients will be vaccinated as soon as possible and be closely watched for symptoms of smallpox. If the vaccine is given within four days of exposure, it can lessen the severity of illness or even prevent it.

**How can I get health advisories or alerts?**

- If an smallpox outbreak is suspected, the Macomb County Health Department will make frequent public announcements.
- Listen to local radio and TV for more information. You may also visit <http://macombcountymi.gov/publichealth> or call 586-466-7923 for instructions.

**MORE SMALLPOX INFORMATION**

Smallpox : Michigan Prepares (MDCH/OPHP)  
[http://www.michigan.gov/michiganprepares/0,1607,7-232-42666\\_42882\\_42953-150616--00.html](http://www.michigan.gov/michiganprepares/0,1607,7-232-42666_42882_42953-150616--00.html)

Smallpox (CDC)  
<http://www.bt.cdc.gov/agent/smallpox/>

Smallpox (NIAID)  
<http://www3.niaid.nih.gov/healthscience/healthtopics/smallpox>

Call the CDC at **1-800-CDC-INFO** or **1-888-232-6348** (TTY).

**COACT INFORMATION**

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<http://macombcountymi.gov/publichealth>