

## SMALLPOX

### What is smallpox?

Smallpox is a serious, contagious and sometimes deadly disease caused by the *Orthopox* virus. It no longer exists in nature. The last case was reported in 1978. The virus only exists in two laboratories, one in Russia and one in the United States.

There are two forms of smallpox:

1. **Variola major** is the most serious and most common form of smallpox. It produces an extensive rash and high fever. There are four types of variola major smallpox:
  - a. ordinary – the most frequent type, accounting for 90 percent or more of cases
  - b. modified – mild, it occurs in people who have received the vaccination before
  - c. flat – rare but very serious
  - d. hemorrhagic – rare but very serious
2. **Variola minor** is the less common and less serious form of smallpox.

### How can someone come into contact with smallpox?

Smallpox can be spread from person to person. Direct and extended face-to-face contact is needed to spread smallpox from person to person. Smallpox is not known to be spread by insects or animals.

A person can come into contact with smallpox through—

- Direct contact with infected bodily fluids or contaminated objects such as bedding or clothing; or
- Being in an area where the virus is in the air in settings such as buildings, buses and trains (This is very rare).

**Smallpox as a weapon:** Smallpox can be aerosolized and released into the air quite easily.

- Please note: Just because you come into contact with smallpox does not mean you will get sick from it.

### What happens if someone gets sick from smallpox?

- **Incubation period, lasts seven to 17 days, not contagious**
  - People may feel fine and may not have any symptoms
- **Initial (first) symptoms, lasts two to four days, sometimes contagious**
  - Fever, discomfort, head and body aches, and sometimes vomiting are present.
  - The fever is usually high, in the range of 101°F to 104°F.
  - At this time, people are usually too sick to carry on their normal activities.
- **Early rash, days 1 to 5, contagious**
  - A rash develops as small red spots on the tongue and in the mouth. These spots develop into sores. The sores break open and spread large amounts of the virus into the mouth and throat. At this time, the person becomes **most contagious**.

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- When or after the sores in the mouth break open, a rash appears on the skin. The rash starts on the face, spreads to the arms and legs, and then to the hands and feet.
- Usually the rash spreads to all parts of the body within 24 hours. As the rash appears, the fever usually goes down and the person may start to feel better. By the third day, the rash becomes raised bumps.
- By the fourth day, the bumps fill with a thick, dark fluid and often have a mark in the center that looks like a bellybutton.
- The fever often will rise again at this time and remain high until scabs form over the bumps.
- **Pustular rash, days 5 to 10, very contagious**
  - The bumps become sharply raised. They are usually round and firm to the touch as if there is a small round object under the skin.
  - People often say the bumps feel like BB pellets under the skin.
- **Pustules/Scabs, days 11 to 14, contagious**
  - The bumps begin to form a crust and then **scab**.
  - By the end of the second week after the rash appears, most of the sores have scabbed over.
- **Resolving scabs, days 15 to 21, contagious**
  - The scabs begin to fall off, leaving marks on the skin that eventually become **scars**.
  - Most scabs will have fallen off three weeks after the rash appears.
  - The person is contagious until all of the scabs have fallen off.
- **Scabs resolved, day 21 and beyond, not contagious**
  - Scabs fall off.

### How likely is someone to die from smallpox?

- **Variola major:** Variola major has an overall death rate of about 30 percent. Flat and hemorrhagic smallpox usually are deadly.
- **Variola minor:** This form has a death rate of 1 percent or less.

### What is the treatment for smallpox?

- **Prevention of illness after contact:** Health care providers can give out the vaccine. If it is given within 72 hours of contact, the vaccine can either prevent the patient from getting the disease or it will slow the disease process so the person will not get as sick.
- **Treatment of illness:** There is no specific treatment for smallpox. Supportive care (intravenous fluids, medicine to control fever and pain) is the standard treatment.

People who are sick from smallpox need to be isolated.

### Is there a vaccine for smallpox?

Yes, there is a vaccine for smallpox. Currently, the United States has enough stock of smallpox vaccine for everyone in the country who might need it in the event of an emergency.

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### **What should be done if someone comes into contact with smallpox?**

If you think that you or someone you know may have come into contact with smallpox, contact the local county health department right away. (Visit [www.idph.state.il.us//local/alpha.htm](http://www.idph.state.il.us//local/alpha.htm) for a listing of all county health departments in Illinois or check your local phone book.)

If you or someone you know is showing symptoms of smallpox, call your health care provider or the Illinois Poison Center right away. The toll-free number for the poison center is 1-800-222-1222.

### **Where can one get more information about smallpox?**

- U.S. Centers for Disease Control and Prevention      [www.bt.cdc.gov/agent/smallpox/index.asp](http://www.bt.cdc.gov/agent/smallpox/index.asp)
- Illinois Department of Public Health                      [www.idph.state.il.us](http://www.idph.state.il.us)
- Illinois Poison Center    [www.IllinoisPoisonCenter.org](http://www.IllinoisPoisonCenter.org)