



### Can smallpox be treated?

Vaccine administered up to 4 days after exposure to the virus, and before the rash appears, can provide some immunity and can prevent infection or lessen the severity of the disease. There is no effective treatment for the disease however, doctors may prescribe medications to treat the symptoms.

### What can the public do if there is a smallpox outbreak?

First and foremost, the public should stay calm. In addition, the public is advised to:

- Listen to public service announcements,
- Stay close to home, do not leave the community, and
- Keep documentation of places visited recently.



Smallpox lesions on the face of a boy.

Source: Centers for Disease Control and Prevention (CDC) . The World Health Organization (WHO).

## Local Resources

For information on Smallpox visit our website at:

<http://www.tulsa-health.org/community-health/epidemiology/>

or write:

Tulsa Health Department  
Planning & Epidemiology  
5051 S. 129th E. Ave.  
Tulsa, OK 74134

Other Contact Information:

Phone: 918/595-4505

Fax: 918/595-4588

E-mail: [epidemiology@tulsa-health.org](mailto:epidemiology@tulsa-health.org)

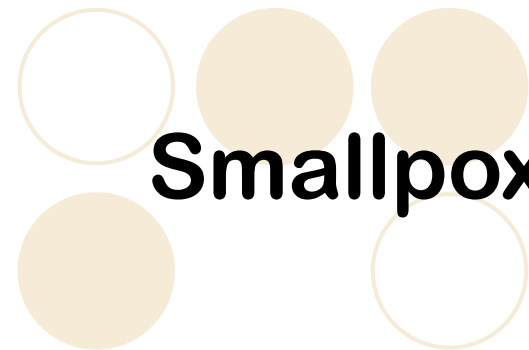
### For more information on Smallpox, visit:

- Centers for Disease Control and Prevention  
404-639-3311  
Public Inquiries: 800-CDC-INFO (800-232-4636)  
<http://www.bt.cdc.gov/agent/smallpox/disease/faq.asp>
- World Health Organizations  
<http://www.who.int/en/>



**TULSA HEALTH  
DEPARTMENT**

Prepared by Planning & Epidemiology



# Smallpox

The Centers for Disease Control and Prevention (CDC) classifies agents with recognized bioterrorism potential into three priority areas (A, B, and C). Smallpox is classified as a Category A agent. Category A agents are those that:

- pose the greatest possible threat for a bad effect on public health,
- may spread across a large area or need public awareness, and
- need a great deal of planning to protect the public's health.

The last case of smallpox in the United States was in 1949. The last naturally occurring case in the world was in Somalia in 1977. In 1980 the disease was declared eradicated following worldwide vaccination programs.

**TULSA HEALTH DEPARTMENT**

# Smallpox

## What is smallpox?

Smallpox is an acute, contagious, and sometimes fatal disease caused by the variola virus (an orthopoxvirus) and marked by fever and a distinctive, progressive skin rash. There are two clinical forms of smallpox:



- Variola major is the severe and most common form of smallpox, with a more extensive rash and higher fever. Historically, variola major has an overall fatality rate of about 30%.
- Variola minor is a less common presentation of smallpox, and a much less severe disease, with death rates historically of 1% or less.

## How can you get smallpox?

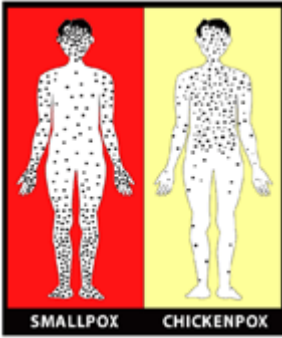
- Direct and fairly prolonged face-to-face contact with someone who has smallpox,
- Direct contact with infected bodily fluids or contaminated objects such as bedding or clothing, and
- Exposure to an aerosol release of smallpox (the virus is put in the air).

Smallpox is not known to be spread by insects or animals.

## Is there a vaccine for smallpox?

There is a vaccine, but it is not currently recommended for widespread use by the public because it can have very serious side effects, which in extreme cases can be fatal.

## What are the symptoms of Smallpox?

<b>Incubation Period</b> (Duration: 7 to 17 days) <i>Not contagious</i>	<b>Exposure to the virus</b> is followed by an incubation period during which people do not have any symptoms and may feel fine. This incubation period averages about 12 to 14 days but can range from 7 to 17 days. During this time, people are not contagious.
<b>Initial Symptoms</b> (Prodrome) (Duration: 2 to 4 days) <i>Sometimes contagious*</i>	The <b>first symptoms</b> of smallpox include fever, malaise, head and body aches, severe back pain, and sometimes, vomiting. The fever is usually high, in the range of 101 to 104°F. At this time, people are usually too sick to carry on their normal activities. This is called the <i>prodrome</i> phase and may last for 2 to 4 days.
<b>Early Rash</b> (Duration: about 4 days) <i>Most contagious</i> Rash distribution:	A <b>rash emerges</b> first as small red spots on the tongue and in the mouth. These spots develop into sores that break open and spread large amounts of the virus into the mouth and throat. At this time, the person becomes <b>most contagious</b> . Around the time the sores in the mouth break down, a rash appears on the skin, starting on the face and spreading 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 falls and the person may start to feel better. By the third day of the rash, the rash becomes raised bumps. By the fourth day, the bumps fill with a thick, opaque fluid and often have a depression in the center that looks like a bellybutton. (This is a major distinguishing characteristic of smallpox.) Fever often will rise again at this time and remain high until scabs form over the bumps.
	
<b>Pustular Rash</b> (Duration: about 5 days) <i>Contagious</i>	The bumps become <b>pustules</b> – sharply raised, usually round and firm to the touch as if there’s a small round object under the skin. People often say the bumps feel like BB pellets embedded in the skin.
<b>Pustules and Scabs</b> (Duration: about 5 days) <i>Contagious</i>	The pustules begin to form a crust and then <b>scab</b> . By the end of the second week after the rash appears, most of the sores have scabbed over.
<b>Resolving Scabs</b> (Duration: about 6 days) <i>Contagious</i>	The scabs begin to fall off; leaving marks on the skin that eventually becomes pitted <b>scars</b> . Most scabs will have fallen off three weeks after the rash appears.
<b>Scabs resolved</b> <i>Not contagious</i>	Scabs have fallen off. Person is no longer contagious.
* Smallpox may be contagious during the <i>prodrome</i> phase, but is most infectious after fever has begun and during the first week of rash.	