

# Smallpox

## How much of a threat is smallpox?

Characterized by fever and a distinctive type of rash, smallpox was once one of the leading



*Smallpox vaccination*

health threats facing the human species. Caused by a virus, smallpox used to kill up to a third of the people who developed the illness.

However, by 1980, smallpox was effectively eliminated as a public health concern, thanks to a major campaign conducted by the World Health Organization. The last known case - anywhere in the world - was reported in the late 1970s. Since no animals other than humans are known to carry or transmit smallpox, the risk of getting the illness had effectively been reduced to zero.

Unfortunately, smallpox may not be completely behind us. A few samples of the smallpox virus were kept for laboratory use after the illness was eradicated - and there is now reason to believe that the virus may have been adapted for use as a weapon. The possibility of a smallpox outbreak, caused by a deliberate release of the virus, is now regarded as a real possibility. The likelihood of a terrorist attack using smallpox is thought to be very low. However, the consequences of such an attack - if it did occur - would be very serious.

## What are the symptoms of smallpox?

The symptoms of smallpox begin with a high fever, head and body aches and, in some cases, vomiting. After two to four days, a rash appears. The rash spreads, and develops into

raised bumps that crust and scab over. After about three weeks, the scabs fall off, leaving pitted scars.

## How long does it take to develop smallpox, once you're exposed?

### And when do you become capable of infecting other people?

The first symptoms of smallpox usually show up about 12-14 days after a person has been exposed to the illness, although symptoms can take as little as seven days or as long as 17 days to appear. Once the first symptoms appear, the patient is usually too ill to travel or engage in most forms of activity. The patient doesn't become infectious - capable of transmitting the disease to others - until the rash appears.

## How contagious is smallpox?

Smallpox is contagious, but it's spread less easily than illnesses like influenza or measles. Generally, it takes prolonged, face-to-face contact - of the kind that takes place in a household setting - to spread the disease from one person to another. It can also be spread through direct contact with body fluids, or objects like bedding and clothing. It can also be spread through the air in buildings or other enclosed spaces, although that happens less commonly.

## Is there a treatment for smallpox?

There is currently no proven treatment for smallpox. However, it can be prevented through vaccination.

The vaccine can still protect people even after they've already been exposed to the smallpox virus. While no vaccine offers perfect protection, vaccinating within three days after being exposed to smallpox offers the same



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level of protection as getting vaccinated *before* you're exposed. Vaccinating within seven days will tend to lessen the severity of any illness resulting from exposure to smallpox.

However, the vaccine can cause serious, potentially fatal reactions in some people, so the benefits of vaccination need to be balanced against the risks. *At a minimum*, it's been estimated that roughly one out of every million people who receive the vaccine will die - and 15 will become very seriously ill. And unless someone *does* use the disease as a weapon, the risk of becoming ill with smallpox is *zero*.