

Hawaii State Department of Health

Disease Investigation Branch

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Smallpox

What is smallpox?

Smallpox is a contagious disease caused by a virus called *Variola*. Smallpox was a major health problem worldwide for thousands of years, but was eradicated in the late 1970's after a successful worldwide vaccination program. When the disease was eliminated, routine vaccination against smallpox was stopped, and the general public no longer has immunity to the disease. Because there are some laboratory samples of the virus remaining, it could possibly be used as a bioterrorist weapon.

How do you get it?

In the past people caught smallpox by being in close contact with an infected person. Smallpox can also be spread through direct contact with infected body fluids (blood, saliva, vomit) or personal items such as bedding or clothing that have been used by an infected person. Rarely, smallpox has been spread through the air in places such as buses or buildings. However, exposure for at least 3 hours is necessary for infection to occur. Smallpox is not spread by insects or animals.

What are the symptoms of smallpox?

The first symptoms include high fever, head and body aches, and sometimes vomiting. Two to four days after the above symptoms start, a rash will appear. Small red spots will show up first in the mouth and on the tongue, then on the head, spreading down the arms and legs to the hands and feet (including the palms of the hands and soles of the feet). The rash will quickly spread over the entire body.

By the third day of the rash, the rash becomes raised bumps that fill with a thick fluid and often have a dimple in the center that looks like a bellybutton.

The bumps then become pustules – sharply raised, round and firm to the touch, as if there is a small ball under the skin. Scabs will form on the pustules, which will fall off after about three weeks, leaving pitted scars.

When do symptoms start?

Symptoms usually appear 7 to 17 days after exposure to the disease.

For how long is a person contagious?

A person is contagious from the beginning of the early symptoms until the last smallpox scab falls off.

What is the treatment for smallpox?

There is no medicine that will treat smallpox once the rash appears. Vaccination within 3 days of exposure will usually prevent or lessen the severity of smallpox symptoms.

What should you do if you are exposed to smallpox?

Minimize contact with others and seek prompt medical attention. To avoid infecting others, call your doctor or hospital before going to the office or emergency room. Vaccination is recommended within 3 days of exposure.

The smallpox vaccine is the best protection if you are exposed to the smallpox virus. The risks associated with smallpox disease are far greater than those posed by the vaccine.

For more information, see the CDC's website at http://www.bt.cdc.gov/agent/smallpox/disease/