

# Smallpox / Variola Virus

# What is Smallpox?

Smallpox is a disease caused by the variola virus. There have been no confirmed cases in the world since 1978, and the World Health Organization declared the disease to be eliminated in 1980. However, the virus is still stored in a few laboratories throughout the world, and has the potential to be used as a weapon of bioterrorism.

### What are the symptoms of Smallpox?

Initial symptoms include high fever, fatigue, headache and backaches. A characteristic rash, which occurs most prominently on the face, arms and legs, follows in 2 to 3 days. The smallpox lesions begin in the mouth and then spread to the face and extremities, where they remain more concentrated. The rash starts with red lesions, which become pus-filled and then begins to crust early in the second week. Scabs develop, then separate, and fall off after about 3 to 4 weeks. All smallpox lesions develop at the same pace and appear identical on any part of the body. The majority of patients with smallpox recover, but death occurs in up to 30% of cases.

The incubation period for smallpox is typically 10 to 14 days, but can range from seven to 19 days following exposure.

## How does Smallpox spread?

The infectious dose is very small. Smallpox spreads easily through direct contact with respiratory or saliva droplets (e.g., coughing or sneezing) from an infected person or through direct contact with contaminated clothing or bed linens. Persons with smallpox are most infectious during the first week of illness because that is when the largest amount of virus is present in saliva. However, some risk of transmission lasts until all scabs have fallen off.

### Are there any reported cases of Smallpox in Canada?

No. There have been no confirmed cases since worldwide eradication in 1978.

# How can Smallpox be prevented?

Routine vaccination against smallpox ended in 1972. The level of immunity among persons who were vaccinated before 1972 is uncertain; therefore, these persons are assumed to be susceptible. In people exposed to smallpox, the vaccine can lessen the severity of or even prevent illness if given within 4 days after exposure. In Canada, vaccination against smallpox is not currently recommended or available.

#### What is the treatment for Smallpox?

Only supportive care is given. There is no treatment for smallpox.

