



Smallpox

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Smallpox

Smallpox is a viral infection caused by the *Variola virus* (an *Orthopoxvirus*) that can affect people of all ages. Smallpox is contagious and has a 30% fatality rate. The infection manifests with a fever, which precedes the development of a progressive rash that occurs all over the body starting in the mouth and on the face. The rash appears as firm, fluid-filled, and singularly dimpled bumps that eventually become crusty and then form scabs. The rash can persist for several weeks and leaves pitted scars when the scabs fall off. There is no known treatment for smallpox.

Millions of people died during widespread smallpox epidemics in the past. Fortunately, smallpox was eradicated as a naturally occurring disease in 1980 after a successful worldwide vaccination program. There have been no cases in the United States since 1972. Most persons born before 1971 were vaccinated once against smallpox. Currently there are no recommendations for vaccination of the general public against smallpox, although there is concern that this virus could be used for bioterrorism. The United States has an adequate supply of smallpox vaccine for those who would need it in the event of such an outbreak. This includes all those known to be directly exposed, health care workers, public health workers, and volunteer responders to the crisis situation. The March 11, 2009, issue of *JAMA* includes an article about smallpox vaccination.

Rash in a patient with smallpox



John Noble Jr, MD/CDC

DIAGNOSIS

- Based on symptoms and appearance of the rash, definitive testing must be done at the Centers for Disease Control and Prevention (CDC) or at a CDC Laboratory Response Network (LRN) designated variola testing laboratory.
- Testing is done using a tissue sample from the skin of the infected person, taken from one of the rash lesions.

PREVENTION

- People who have had smallpox and survived are **immune** (protected against reinfection).
- Vaccination helps to prevent infection in people who are exposed or at immediate risk of exposure and can be effective even when given 3 to 4 days after exposure.
- Hospitalization and isolation of the infected person and vaccination of those who have had close direct contact with that person, particularly after the rash began to develop
- Previous vaccination does not provide lifelong immunity and booster vaccination is necessary for those who may be or have been exposed.

Source: Centers for Disease Control and Prevention

FOR MORE INFORMATION

Centers for Disease Control and Prevention
www.cdc.gov/smallpox

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