

SMALLPOX Fact Sheet



The Disease

Smallpox is a serious, contagious, and sometimes deadly disease. There is no cure for smallpox disease, and the only prevention is vaccination. Most people will recover, however, up to 30% of people who get the disease may die.

Smallpox outbreaks have occurred from time to time for thousands of years, but the disease is no longer a natural threat after a successful worldwide vaccination program. 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. After the disease was eliminated from the world, routine vaccination against smallpox among the general public was stopped because it was no longer necessary for prevention.

Where Smallpox Comes From:

Smallpox is caused by the variola virus that began in human populations thousands of years ago. Except for laboratory specimens, smallpox has been eliminated throughout the world. However, after the attack on the World Trade Center and the use of anthrax as a bioterrorism agent in 2001, there is concern that smallpox might be used as a form of terrorism. For this reason, the U.S. government is taking precautions for dealing with a smallpox outbreak. If an outbreak were to occur, Connecticut has a detailed plan to investigate the outbreak and treat anybody who gets the disease.

Transmission

Generally, a lot of direct face-to-face contact is needed to spread smallpox from one person to another. Smallpox can also be spread through direct contact with bodily fluids from somebody who has it or contaminated objects such as bedding or clothing. Rarely, smallpox has been spread through the air in enclosed settings such as buildings, buses, and trains. If released into the air, 90% of the virus will become inactive within 24 hours. Humans are the only natural hosts of smallpox and it is not known to be transmitted by insects or animals.

Smallpox is sometimes spread by a person when they begin to have a fever, but the person becomes most contagious when the rash starts. At this stage the person is usually very sick and not able to move around in the community. The infected person is contagious until the last smallpox scab falls off.

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Symptoms

People who get smallpox usually get a high fever, head and body aches, tiredness, and sometimes vomiting. These symptoms happen 7 to 17 days after being infected with the disease. The person then starts to see a rash of small red spots, often on the tongue and in the mouth. The person also gets the rash on other parts of their body that starts on their face and spreads to the arms, legs, hands and feet. The rash will turn into raised bumps and pus-filled blisters that will crust, scab, and fall off after about three weeks, leaving a scar.

Vaccine

The smallpox vaccine can be given before exposure or within a few days of exposure to prevent a person from getting the disease or, if the person has already been infected, to prevent the disease from becoming severe. The vaccination provides a high level of immunity for 3 to 5 years and decreasing immunity thereafter. The vaccine has been found to be effective in 95% of those vaccinated.

The vaccine is given in the form of shot, usually in the upper arm. If the vaccination was successful, a red and itchy bump will form at the vaccine site in 3 to 4 days. In the first week, the bump will become a large blister, fill with pus, and begin to drain. In the second week, the blister will dry up and form a scab. The scab will fall off in the third week, leaving a small scar.

In the event of a smallpox outbreak, the U.S. government has access to enough smallpox vaccine to respond to the emergency. In an emergency, no one will be forced to be vaccinated. People who choose not to be vaccinated and have been exposed to the virus or have been in contact with a person who has the disease may need to be isolated for at least 18 days.

Vaccine Side Effects

The risks for vaccination are very small, especially compared to the chances of getting very sick and even dying from smallpox. Most people experience normal, usually mild reactions that include a sore arm, fever, and body aches. However, other people experience reactions ranging from serious to life-threatening. People most likely to have serious side effects are people who have had skin conditions and people with weakened immune systems. Pregnant women, women who are breastfeeding, children under 12 months of age, and those who have been diagnosed by their doctor as having a heart condition should not get the vaccine.