

Public Health Threats & Bioterrorism

SMALLPOX

What is smallpox?

Smallpox is a contagious, and sometimes fatal infectious viral disease. Smallpox outbreaks have occurred from time to time for thousands of years, but the disease is now extinct in nature after a successful worldwide vaccination campaign. The last case of smallpox in the United States was in 1949, and in the world in 1977 in Somalia.

What are the symptoms?

In about 7 - 17 days after exposure, symptoms begin with high fever, head and body aches (especially back aches), fatigue and sometimes vomiting. Next, a rash appears on the face, arms and legs. By day three, the rash becomes raised pus-filled bumps (pustules) and begins to crust early in the second week. Scabs develop, then separate and fall off, leaving a pitted scar. While most patients with smallpox recover, death was reported in up to 30 percent of cases without vaccination or treatment.

How is it spread?

In most cases, smallpox is spread person to person by prolonged face-to-face contact with the ill person, or through direct contact with pustules or other infected bodily fluids or contaminated objects such as bedding or clothing. People with smallpox are contagious until all of the scabs have come off naturally. Rarely, smallpox has been spread by virus carried in the air in enclosed settings, such as buildings, buses and trains. Humans are the only natural hosts. Smallpox is not known to be transmitted by insects or animals.

How is it treated?

While there is no approved treatment for smallpox illness, it can be prevented through use of the smallpox vaccine. If a person has been exposed to smallpox and gets vaccinated within four days, the chances of becoming ill are lessened. Patients with smallpox can benefit from supportive therapy (e.g., intravenous fluids, medicine to control fever or pain) and antibiotics for any secondary bacterial infections that may occur.

What can I do to protect myself and my family?

Educate yourself and your family with facts about smallpox. People with suspected or confirmed smallpox are capable of spreading the virus and should be placed in medical isolation so they will not continue to spread the virus. In addition, people who have come into close contact with smallpox patients should be vaccinated immediately and closely watched for symptoms of smallpox. All bedding and clothing of patients must be cleaned appropriately with bleach and hot water. Disinfectants such as bleach and quaternary ammonia can be used for cleaning contaminated surfaces. In the event that there are many cases in a city, vaccinations may be given to the entire population of that city.

How serious is the smallpox threat?

The deliberate release of smallpox as an epidemic disease is now regarded as a possibility, and the United States is taking precautions to deal with this possibility.

How many people have to get smallpox before it is considered an outbreak? One confirmed case of smallpox is considered a public health emergency.

What is Tarrant County doing about it?

Tarrant County Public Health works with local health providers as well as with other city, state and federal agencies to prepare our area, should smallpox become an issue. Public health staff have received training in handling smallpox vaccinations and plans are in place to handle such a public health threat or emergency.

How safe is the smallpox vaccine?

The smallpox vaccine is considered safe. It is the only way to prevent smallpox. Most people experience normal, usually mild reactions that include a sore arm, fever and body aches. The vaccine does have risks. Careful screening of potential vaccine recipients is essential to ensure that those at increased risk do not receive the vaccine. Currently the vaccine is not available to the general public. However, in the event of a smallpox outbreak, there is enough smallpox vaccine available to everyone who would need it.

If I had the vaccination in the past, will it still be effective?

Not necessarily. The level of immunity, if any, among persons who were vaccinated before 1972 is uncertain. Most estimates suggest protection from infection lasts three to five years.

Where can I get more information?

You can visit us online (http://health.tarrantcounty.com); call our Epidemiology and Health Information office at 817-321-5350; contact the Centers for Disease Control and Prevention at 1-888-246-2675 (www.bt.cdc.gov).