



## Smallpox

The last naturally occurring case of smallpox occurred in Somalia in 1977. The World Health Organization (WHO) certified that smallpox was eradicated from the world in 1980. Currently, the only known remaining samples of smallpox virus are held at the WHO reference laboratories at the Centers for Disease Control and Prevention in Atlanta, GA and the Institute for Viral Preparations in Russia. Although the WHO recommended any remaining virus be destroyed or transferred to its reference laboratories, the possibility that some countries kept stockpiles of the virus cannot be ruled out. Thus, there is concern that smallpox could be a potential agent in a bioterrorism event.

Routine vaccination against smallpox was discontinued in the United States in 1972. Vaccination of the military population ceased in 1989. Currently, routine smallpox vaccination is not recommended for any group. Immunity is thought to wane over time and at this point the entire United States population is believed to be susceptible. Persons vaccinated in the past likely have some protection against severe disease, but probably do not have complete immunity. Prior infection with the disease usually grants lifelong immunity.

The Centers for Disease Control and Prevention maintains a stockpile of approximately 15 million doses of the vaccine. Recent studies indicate that this vaccine can be diluted by as much as 1:10 and can still induce immunity in 97% of those vaccinated. Additionally, CDC has contracted with Acambis/Baxter to produce enough vaccine to increase the stockpile to 286 million doses by the end of 2002.

The CDC's smallpox fact sheet

<http://www.bt.cdc.gov/DocumentsApp/FAQSmallpox.asp?link=2&page=bio> provides answers to some common questions concerning smallpox. A consensus statement was developed and can be accessed on the web at <http://jama.ama-assn.org/issues/v281n22/fpdf/jst90000.pdf>. CDC has also developed an algorithm for evaluating patients with acute, generalized vesicular or pustular rash illness (<http://www.cdc.gov/nip/smallpox/poster-protocol.pdf>).

A single case of smallpox anywhere in the world would be considered a public health emergency. As with any unusual cases of disease, health care providers **are required to report cases and suspect cases of smallpox** to local health departments (in Boston call the Boston Public Health Commission at 617-534-5611) **immediately**.

