Smallpox

Smallpox is caused by variola virus. The incubation period is about 12 days (range: 7 to 17 days) following exposure. Initial symptoms include high fever, fatigue, and head and back aches. A characteristic rash, most prominent on the face, arms, and legs, follows in 2-3 days.

The rash starts with flat red lesions that evolve at the same rate. Lesions become pus-filled and begin to crust early in the second week. Scabs develop and then separate and fall off after about 3-4 weeks. The majority of patients with smallpox recover, but death occurs in up to 30% of cases.

Smallpox is spread from one person to another by infected saliva droplets that expose a susceptible person having face-to-face contact with the ill person. 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.

Routine vaccination against smallpox ended in 1972. The level of immunity, if any, among persons who were vaccinated before 1972 is uncertain; therefore, these persons are assumed to be susceptible.

Vaccination against smallpox is not recommended to prevent the disease in the general public and therefore is not available.

In people exposed to smallpox, the vaccine can lessen the severity of or even prevent illness if given within 4 days after exposure. Vaccine against smallpox contains another live virus called vaccinia. The vaccine does not contain smallpox virus. The United States currently has an emergency supply of smallpox vaccine.

SOURCE: With permission from the Center For Disease Control and Prevention - September 2001
**What is Anthrax?**
Anthrax is a bacterial, zoonotic disease caused by Bacillus Anthracis. Anthrax occurs in domesticated and wild animals, including goats, sheep, cattle, horses and deer, but other animals may be infected. Anthrax is an invisible bacteria that can live in soil, water, and dead animals.

**What Are the Symptoms and Effects of Anthrax?**
After an incubation period of 1-7 days, the onset of inhalation anthrax is gradual. Possible symptoms include:

- fever
- malaise
- fatigue
- cough
- mild chest discomfort followed by severe respiratory distress

A mild illness can progress rapidly to respiratory distress and shock in 2-4 days. This is followed by a range of more severe symptoms including difficulty breathing, exhaustion, tachycardia and cyanosis. Shock and death occur within 24-36 hours after onset of severe symptoms.

**What Is the Treatment for Anthrax?**
Treatment with antibiotics beginning one day after exposure to a lethal aerosol challenge with anthrax spores (8,000 - 22,000 spores) has been shown to provide significant protection. Penicillin, doxycycline, ciprofloxin, are all effective against most strains of anthracis. Penicillin is the treatment of choice for naturally occurring anthrax. For post-exposure prophylaxis the administration of antibiotics should be continued for at least 4 weeks in those exposed and if available, those exposed should receive 3 doses of vaccine before antibiotics are discontinued.

A vaccine is available and consists of a series of 6 doses over 18 months with yearly boosters. This vaccine, while known to protect against anthrax acquired through the skin, is also believed to be effective against inhaled spores.

Effective decontamination can be accomplished by boiling contaminated articles in water for 30 minutes or longer and using common disinfectants. Chlorine is effective in destroying spores and vegetative cells. Remember, anthrax spores are stable, able to resist sunlight for several hours and able to remain alive in soil and water for years.

**What should I Look for regarding suspicious packages or mail?**

- It’s unexpected or from someone you don’t know
- It’s addressed to someone no longer at your address
- It’s marked with restrictive endorsements such as “Personal” or “Confidential”
- It has excessive postage
- It’s lopsided or lumpy in appearance
- It’s sealed with excessive amounts of tape
- Don’t handle a letter or package that you suspect is contaminated
- Don’t shake it, bump it, or sniff it
- Put the mail piece in a plastic bag
- Wash your hands thoroughly with soap and water
- Notify local law enforcement authorities