

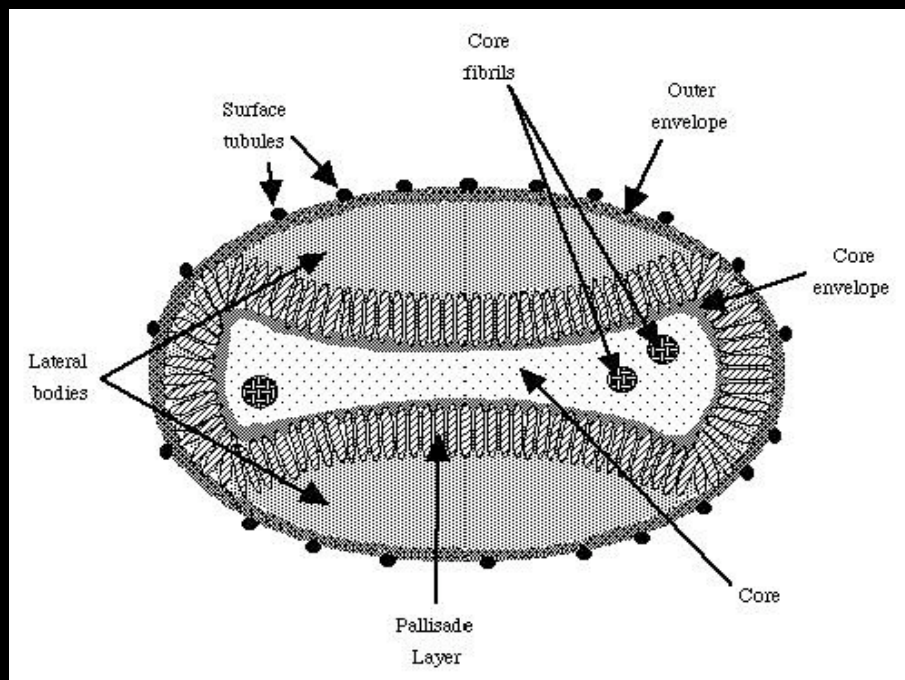
Smallpox

# Learning Objectives

Students should be able to:

- Define smallpox
- Identify symptoms
- Identify risk factors
- Name some of the causes
- Link prevention and intervention

Small pox is a highly contagious human disease caused by the virus *variola*. There are two strains of the virus: *variola major*, which is more severe (20-40% mortality rate) and *variola minor* (1% mortality rate).



The virus penetrates the lungs, enters the host's blood and infects the internal organs. Reenters the blood and infects the skin which results in a rash.

Symptoms: 102 F or greater  
Headache  
Backache  
Abdominal pain  
Vomiting  
Diarrhea



# ORIGINS

- Pharaoh Ramesses V 1157 BC
- India, China and Japan
- Europe
- America



# Causes

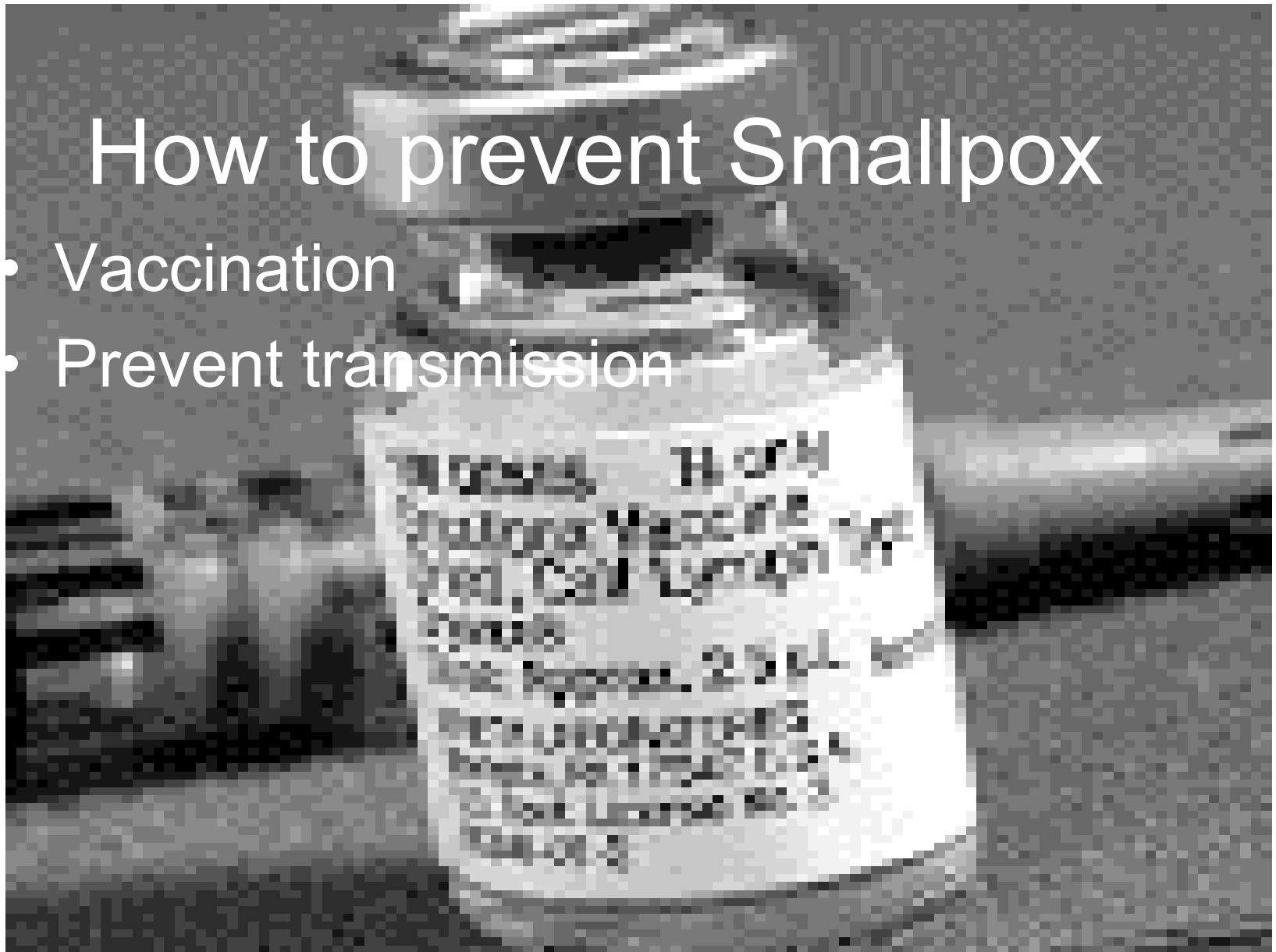
- Variola virus
- Humans are only carriers
- Face-to-face contact
- Infected bodily fluids
- Contaminated clothing and bedding
- Air, but rare

# Treatment

- No treatment exists
- Only prevention
- Vaccination
- Last known case in 1977 in Somalia
- Last case in United States in 1949
- Bioterrorism

# How to prevent Smallpox

- Vaccination
- Prevent transmission





# Smallpox Risk Factors

- The risks to get smallpox are between ages of 7 to 17
- The Risk of Death
- Inflammation of the Brain (encephalitis)
- Illness



# Intervention

- Surveillance and Containment
  - Effective intervention
    - More deaths would occur
- Vaccinations
  - Could be effective intervention
    - Prevent cases of small pox

# Review Questions

- What is the name of the virus that causes smallpox?  
\_\_\_\_\_
- List 3 of the 6 symptoms? \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_
- Only humans are carriers of smallpox. T/F
- What is the age group most affected by smallpox?  
\_\_\_\_\_
- Vaccination is the only prevention of smallpox. T/F