

Smallpox



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**Do you need an idea for a scientific study?
Try out one of our ideas or make one of your own.**

Start learning right now about smallpox and how you can recognize the difference between smallpox and chickenpox. Take the following brief quiz to see how much you already know about smallpox.

1. Which of these facts about vaccines is *incorrect*?
 - a. The first vaccine was for smallpox.
 - b. The first smallpox vaccine was the cowpox virus.
 - c. Vaccines are not effective against viral infections.
 - d. The word vaccine comes from the Latin word vaca, for “cow”.
2. Chickenpox comes from chickens.
 - a. true
 - b. false
3. In the past, parents would have parties when one of their children caught chickenpox.
 - a. true
 - b. false
4. In the past, people would blow smallpox scabs up their nose as a preventive strategy.
 - a. true
 - b. false
5. The smallpox vaccine does *not* use a normal needle.
 - a. true
 - b. false



Is it Smallpox?

Determine if each of the images below are chickenpox or smallpox. See the bottom of page 4 to check your answers.



Figure 1



Figure 2

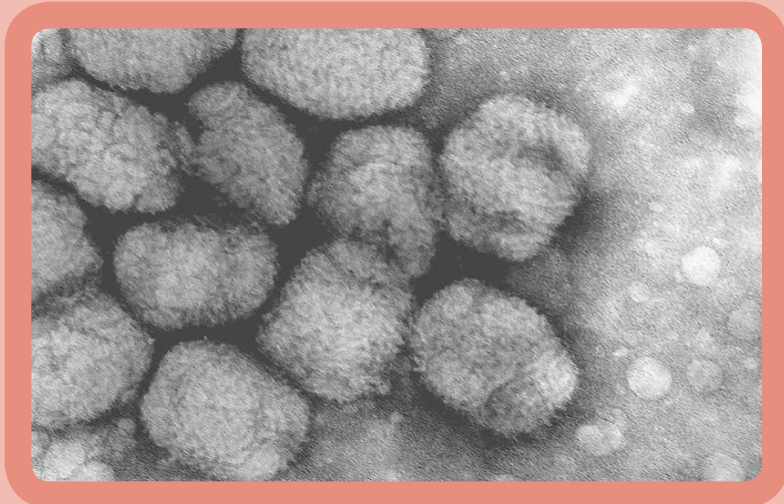


Figure 3

Smallpox

Major or Minor Mortality?

Smallpox is a human disease caused by the *Variola* viruses. Its name came from those who wanted to distinguish the disease from syphilis that also caused a rash. The *Variola major* virus is more deadly than the *Variola minor*. The *major* virus has a mortality rate of about 35%, while the *minor* virus only kills about 1% of its infected hosts. The disease



reportedly killed between 300 to 500 million people during the 20th Century. The World Health Organization declared that smallpox was eradicated in 1979. Vaccines are available to prevent smallpox, but no cure currently exists if a person is infected and has not been previously vaccinated for the disease.

For more information on the management and prevention of the spread of disease through the general population visit:

<http://www.pacercenter.org/>

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Answers: Page 2, Answers: (1) c. (2) b. The name is because the papules look a bit like chickpeas. (3) a. "Pox parties" were a way of spreading the disease, and hence lifelong immunity, among children. It is much better to catch chickenpox as a child than as an adult. With the advent of vaccinations, the practice is not recommended. (4) a. This was called variolation, and caused a milder form of smallpox with a 1% mortality rate. (5) a. Smallpox vaccine is delivered through a bifurcated needle, which looks a bit like a fork with two prongs. It is jabbed several times into the arm. **Page 3, Is it Smallpox? Answers:** (1) Chickenpox. (2) Chickenpox. (3) This is a transmission electron micrograph of Smallpox viruses.

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