

The Black Plague



1347 - 1351

Why did the plague hit Europe so hard?

By 1300 Europeans were farming as much land as they could cultivate, leading to a population crisis and overcrowding.

Excessive rain due to climate changes produced three years of crop failures between 1315-17.



Some villages lost up to 15% of their peasant population.

Starvation and poverty gave way to susceptibility to disease.

The lack of sanitation procedures for keeping extremely crowded towns clean created a breeding ground of disease.

The Bubonic Plague wiped out one-third of Europe's population between 1347 and 1351 - only 4 years!

3 Forms of the Plague



Bubonic Plague
painful lymph node swellings, buboes

Septicemic Plague
also called “blood poisoning”,
attacked the blood system



Pneumonic Plague
attacked the respiratory system

Causes of the Plague

Myths



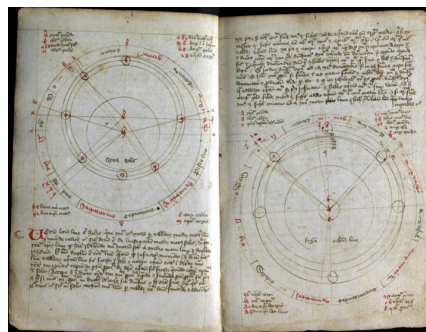
Foreigners or those of a different religion had poisoned the wells

It was a punishment from God.



Bad air

The position
of the planets



The Bubonic Plague



- Swellings “egg” or “apple”
- Fever of 101-105 degrees
- Headaches and Aching joints
- Nausea
- Vomiting of blood
- General feeling of malaise

People with swellings might have a chance.

Swellings expanded until they burst - poison was released .

Mortality rate: 30-40%

Whole process: 3-5 days

The Pneumonic Plague



2nd most common form of the plague

Slimy sputum tinted with blood infected the lungs

Bacteria in saliva coughed or sneezed up by sick persons



1-7 days for symptoms to appear

Mortality Rate: 90-95%

The Septicemic Plague

DIC: disseminated intravascular coagulation
(bleeding under the skin)



Attacked the
blood system
(Blood Poisoning)

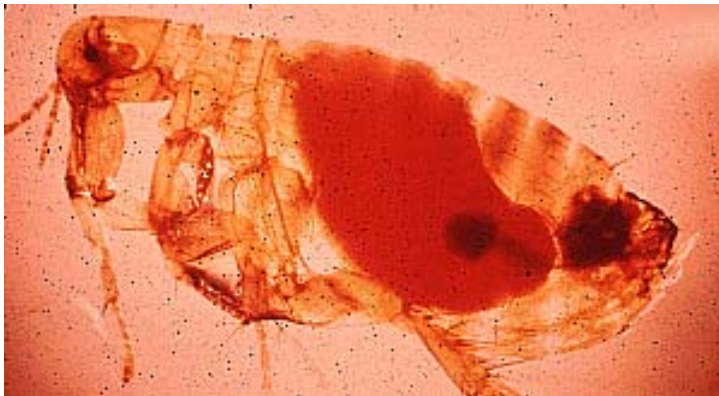
caused the
skin to turn
dark purple,
almost black:
The Black
Death

Victims usually died the same day symptoms
appeared.

Mortality Rate: close to 100%

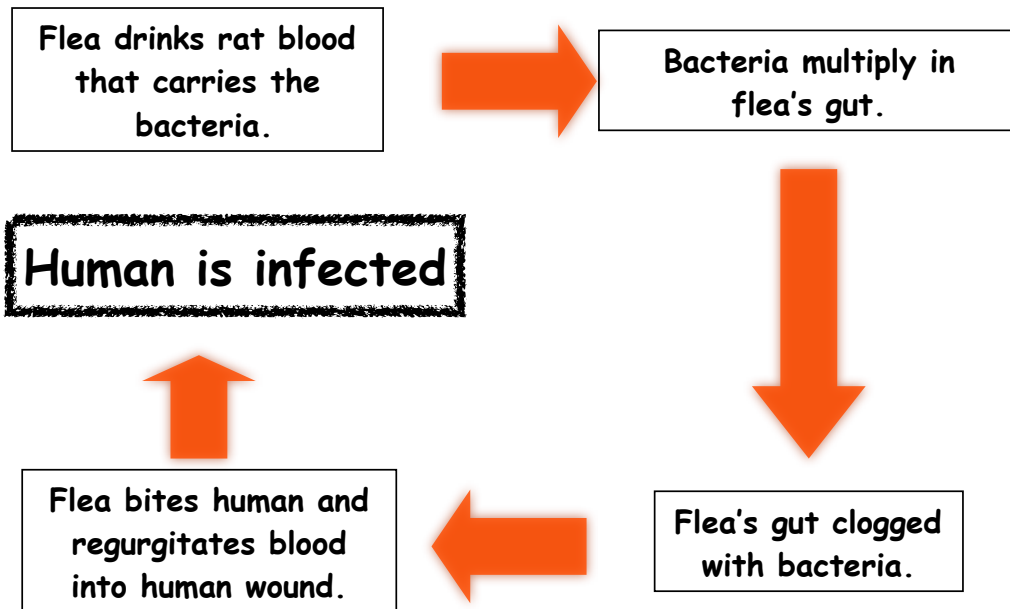
Transmission of the Bubonic and Septicemic Plague

Direct contact with a flea



The Bacteria (*Yersinia pestis*) carried by rodents
Fleas infest animals, primarily rats
Then move to human hosts
The oriental rat flea, *Xenopsylla cheopis*

The Disease Cycle



Attempts to Stop the Plague



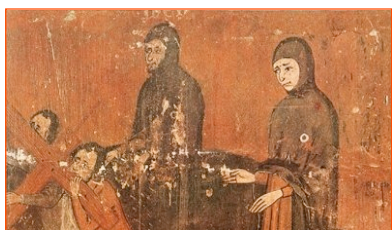
A Doctor's Robe



Flagellanti: self-inflicted "penance" for sins



"Leeching"



"Golden Circle" obligatory badge

Pogroms against Jews





Day 1 Painful swellings called buboes appeared in the victim's armpits and groin. These were usually about the size of an egg, but could sometimes be as big as an apple.



Day 4 The disease attacked the nervous system. This caused the victim to suffer spasms. The victim was in terrible pain.



Day 2 The victim vomited and developed a fever.



Day 5 Sometimes the buboes burst and a foul-smelling black liquid oozed from the open boils. When this happened the victim usually lived. However, in most cases the victim suffered a painful death.



Day 3 Bleeding under the skin caused dark blotches all over the body.

Buboes – swollen lumps in the groin, Neck, or armpit