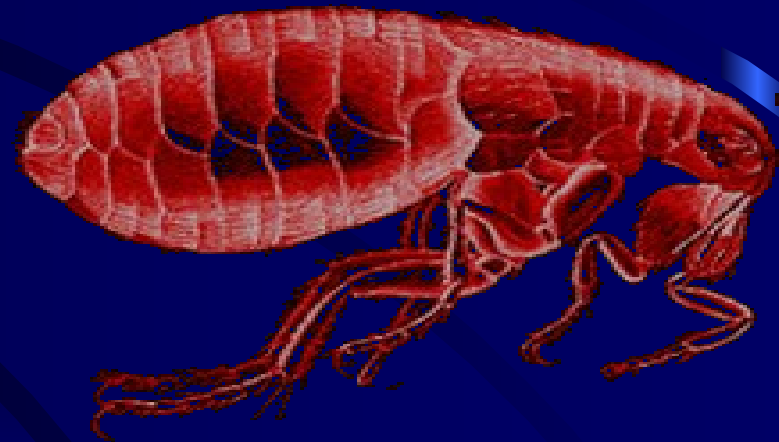
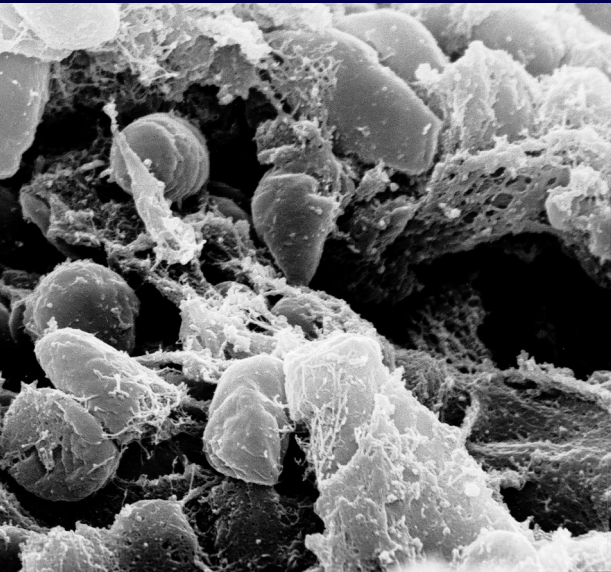


The Black Death



Key questions

There are 3 questions that will be asked during the course of the lesson;

1. What is the “Black Death”?
2. What caused the Black Death?
3. What were the consequences?

The plague arrives

The Black Death refers to one of the most devastating pandemics. The most dominant explanation is the plague theory. Historians think that the plague arrived in Europe in 1346. It reached England during the summer of 1348. During the following autumn it spread quickly through the south west. Few villages escaped. Churchyards were full with bodies.

The plague spread quickly during the winter of 1348-1349 to the north of England. By 1350, nearly the whole of Britain was infected with the plague.

At the end of 1350 nearly two and a half million people were dead!

Where did the Black Death come from?



Where did the Black Death come from?

It is believed to have started in China. Subsequently it travelled along the Silk Road (land and sea routes) to Crimea (today's Ukraine). Then, probably carried by Oriental fleas living on the black rats that were frequent black passengers on merchant ships it reached other parts of Europe.

What caused the plague?

The question that you are probably thinking is this:

Q: Who or what caused the Black Death?

A: This is your answer!

The Oriental Rat Flea,
carrying a mass of
Yersinia pestis bacteria in
its guts!



How was the plague transmitted?

We now know that the most common form of the Black Death was the **BUBONIC PLAGUE!** This disease was spread by fleas which lived on the black rat. The fleas sucked the rat's blood which contained the plague germs. When the rat died the fleas jumped on to humans and passed on the deadly disease.

**Flea drinks rat blood
that carries the bacteria**

**Bacteria multiply
in flea's gut**

Human is infected

**Flea bites human,
regurgitates blood
into open wound**

**Gut clogged
with bacteria**

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What does it do?

Symptoms and disease progression of Bubonic plague

- incubation period of 2–6 days, when the bacteria is actively replicating.
- lack of energy
- fever
- headache and chills occur suddenly at the end of the incubation period
- swelling of lymph nodes (armpits/ groins) resulting in **buboes**

What were the symptoms of the plague?



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.



Giovanni Boccaccio's account of the plague years

"In men and women alike it first betrayed itself by the emergence of certain tumours in the groin or armpits, some of which grew as large as a common apple, others as an egg...From the two said parts of the body this deadly gavocciolo soon began to propagate and spread itself in all directions indifferently; after which the form of the malady began to change, black spots or livid making their appearance in many cases on the arm or the thigh or elsewhere, now few and large, now minute and numerous. As the gavocciolo had been and still was an infallible token of approaching death, such also were these spots on whomsoever they showed themselves.

Cures?

- Medieval people did not know about germs causing disease. They did not understand that plague was spread by rats and fleas. They thought that people's bodies were poisoned.
- If the swellings burst and the poison came out people sometimes survived. It seemed sensible to draw out the poison.

Medieval cure number 1

The swellings should be softened with figs and cooked onions. The onions should be mixed with yeast and butter. Then open the swellings with a knife.

Medieval cure number 2

Take a live frog and put its belly on the plague sore. The frog will swell up and burst. Keep doing this with further frogs until they stop bursting. Some people say that a dried toad will do the job better.

Question

How useful do you think these medieval cures actually were? Did they help at all or were they more harmful?

Consequences of the disease

The pandemics resulted in anywhere between 25-50% (modern estimate) decrease in the world's population. From 450 to probably 350 million. It took some 150 years for the European population to recover.

Treatment of plague today?

What do you think might be the possible treatment for this kind of disease?

If you don't know, try to remember what is the cause of the disease?

What is the treatment for disease caused by a similar agent?

Reaction to the disease?

Because 14th century **healers failed to explain** the cause, Europeans turned to astrological forces, earthquakes, and the poisoning of wells by Jews as possible reasons for the plague's emergence. (resulted in further pogroms)

The **governments** of Europe had no apparent response to the crisis because no one knew its cause or how it spread.

Many people believed it was a display of **God's anger**
There were many attacks against Jewish communities.

the **Flagellants**, a movement of supposedly up to 800,000, reached its peak of popularity.

