

# MailOnline health

## Scientists discover 21st century black plague that spreads from rats to humans

By [Daily Mail Reporter](#)

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A new plague which jumps from rats to humans has been discovered by scientists.

Fears are growing that increasing numbers of brown rats - the most common kind in Europe - are carrying a strain of bacteria that can cause serious illness in humans from heart disease to infection of the spleen and nervous system.

The new strain of bacteria called *Bartonella rochalimae* is spread between rats by fleas, Taiwanese researchers have said.



**Black Death: A brown rat, common in the UK, has been found carrying a new strain of bacteria called *Bartonella rochalimae*, which is deadly to humans**

It was first discovered in an American woman with an enlarged spleen who had recently travelled to Peru.

'This event raised concern that it could be a newly emerged zoonotic pathogen,' said Professor Chao-Chin Chang from the National Chung Hsing University in Taiwan.

'Therefore, we decided to investigate further to understand if rodents living close to human environment could carry this bacteria.'

Scientists have found that rodents carry several pathogenic species of *Bartonella*, such as *B. elizabethae*, which can cause inflammation of the heart and *B. grahamii*, which causes inflammation of the retina and optic nerve of the eye.

'By analysing the DNA of the bacteria, we discovered a strain that is most closely related to *B. rochalimae*, which has been isolated recently from a human infection in the United States,' said Professor Chang.

Researchers took samples from 58 rats and mice.

Six of the rodents were found to be carrying Bartonella bacteria; five of these were brown rats.

Four of the rodents were carrying *B. elizabethae*, which can cause heart disease in humans, and one of the black rats was found to be harbouring *B. tribocorum*.

However, scientists noticed one strain that had not been identified in rodents previously. The strain was finally shown to be *Bartonella rochalimae*.

Professor Change said the results raised concerns about the existence of a 21st century plague.

'This certainly warrants further investigation,' he said.

The Black Death was one of the deadliest pandemics in human history, widely thought to have been caused by a bacterium named *Yersinia pestis*, or Bubonic plague.

It was spread by rodents in the 14th century and centuries after that, killing an estimated 75 million people worldwide.

## Comments (61)

You got it wrong, it is a Brown rat.

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- William Owen, Cardiff Wales, 26/11/2008 12:29

It is spread by the FLEAS, not the rats! Rats are clean creatures.

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- Amy G, Christchurch, New zealand, 26/11/2008 02:07

And to think that I just did a report on the Black Plague yesterday...

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- Champ, FL, USA, 26/11/2008 01:26

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