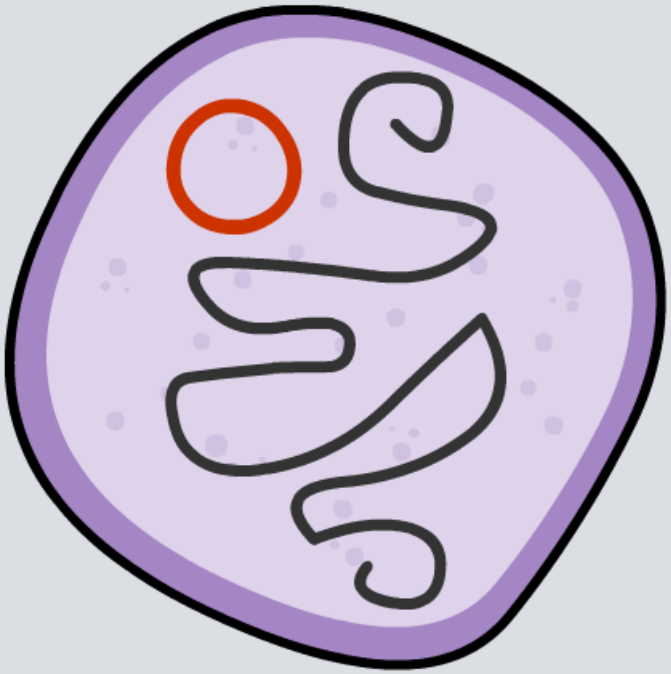
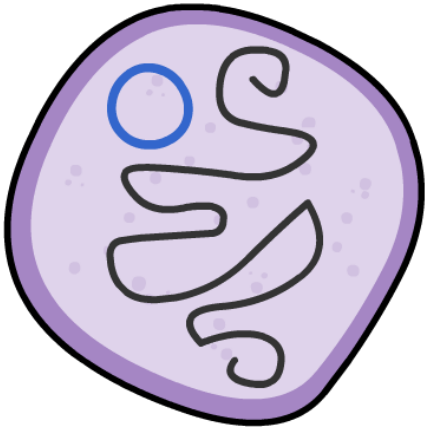
Superbugs



What are superbugs?

Some species of bacteria can double in number every 20 minutes. Mutations that offer competitive advantages spread rapidly through the population as a result.



A common type of mutation amongst bacteria is to develop resistance to an antibiotic.
If bacteria become resistant to several antibiotics, they are known as '**superbugs**'.

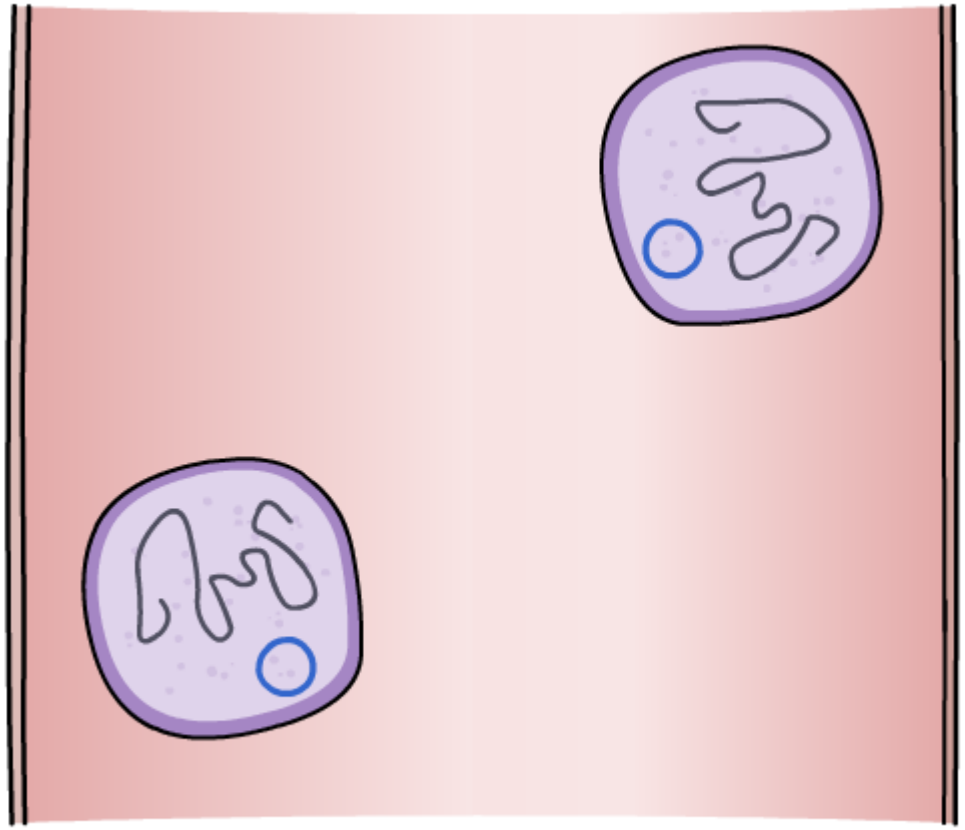
Infections caused by antibiotic-resistant bacteria are very difficult to treat, especially in patients with weakened immune systems. This is because the range of drugs that can kill the bacteria is so limited.

The evolution of superbugs?

How do superbugs evolve?

How do bacteria become resistant to antibiotics and turn into superbugs?

Click "**start**" to find out.



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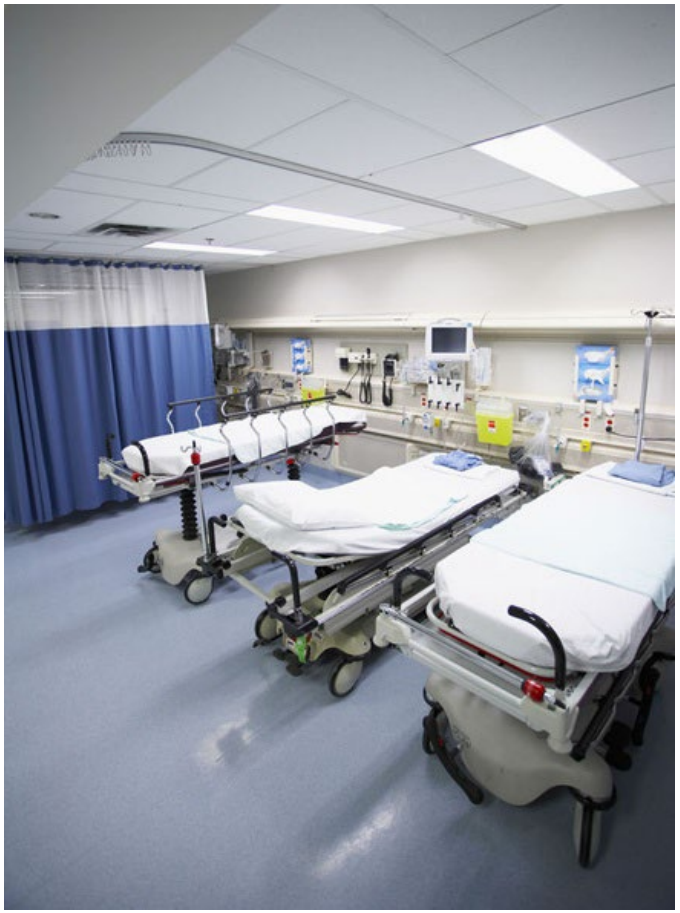
What is MRSA?

MRSA is 'Methicillin-resistant *Staphylococcus aureus*' – a bacterium that is resistant to several antibiotics.



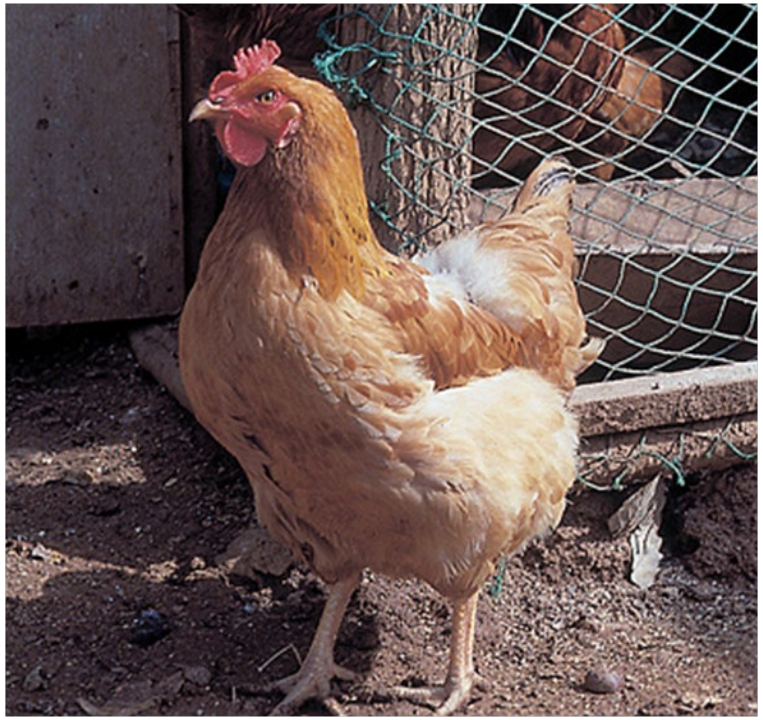
About 30% of the population carry MRSA without any symptoms. In hospital patients, however, it can cause pneumonia, blood poisoning and even death.

The antibiotic vancomycin is used to treat MRSA infection, but resistance to this has evolved, creating VRSA.

What is the risk from bird flu?

Since 1997, the H5N1 avian influenza, or ‘bird flu’, virus has been infecting birds across Asia and Europe.

There are different **strains** of bird flu – some are more pathogenic (disease-causing) than others. Most pose little risk to humans.



The concern is that the virus may mutate into a pathogenic strain that can be transmitted between humans.

Only a small number of people have died from bird flu, and these were people in close contact with domestic poultry.