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You can contact us to find out more about the scientific research and information we have used to produce this leaflet.

If you need extra copies of this leaflet, or would like to translate, adapt or reproduce it, please get in touch.

### For more information on this topic

- Read our 'CD4 and viral load' leaflet.
- Read our 'HIV lifecycle' page.

### Other titles in The basics series

- Eight ways to look after your health
- A healthy weight
- Undetectable viral load

### For information in other languages

[www.aidsmap.com/languages](http://www.aidsmap.com/languages)

### For more information about HIV

- Visit our website [www.aidsmap.com](http://www.aidsmap.com)
- Speak to an adviser at THT Direct **0808 802 1221**

### Please support us

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Thanks to all of the professionals and people with HIV who have helped us to develop this leaflet.

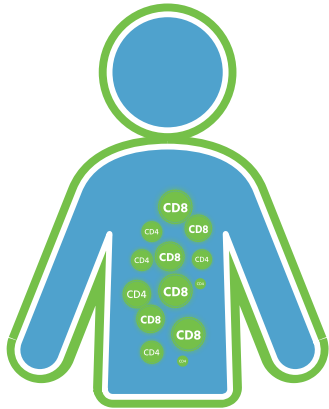
**We recommend that you discuss the information in this leaflet with a doctor or other health worker.**

# The basics

## HIV and the immune system

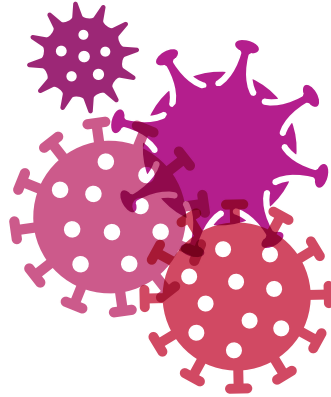


The immune system is the body's natural defence system.

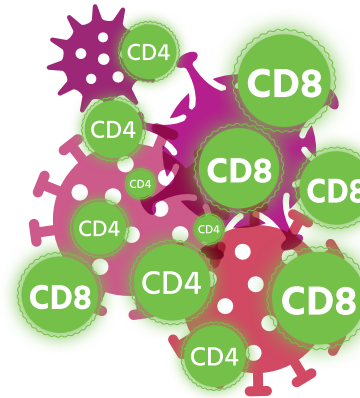


It's a network of cells, tissues and organs inside the body.

'Pathogens' (or germs) are living things that can cause disease. Bacteria and viruses are both pathogens. We come into contact with them all the time – there are pathogens in the air we breathe, in the food we eat and elsewhere in our surroundings.

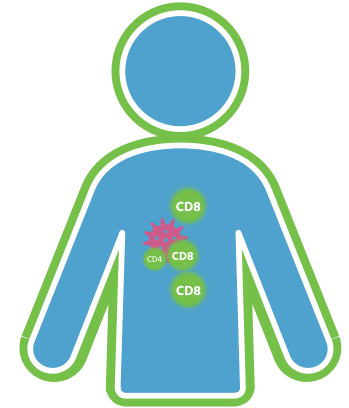


Pathogens don't usually cause problems, because the immune system attacks them if they get inside the body.

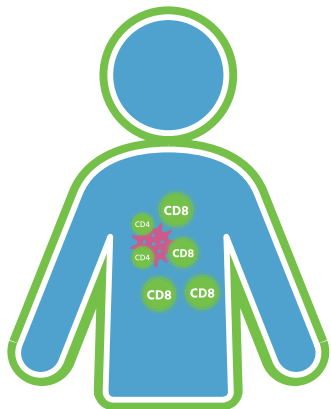


**When the immune system is strong, you don't get ill.**

Once a pathogen has got inside the body, cells in the immune system (called CD4 cells) recognise it as something that doesn't belong there.

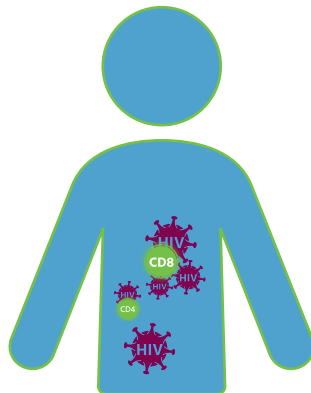


Other immune system cells (including CD8 cells) are sent to attack and destroy the pathogen.

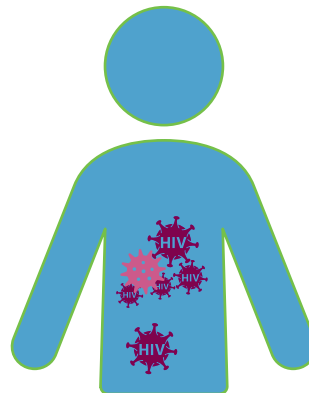


**If the immune system has been made weak by HIV, you may get ill.**

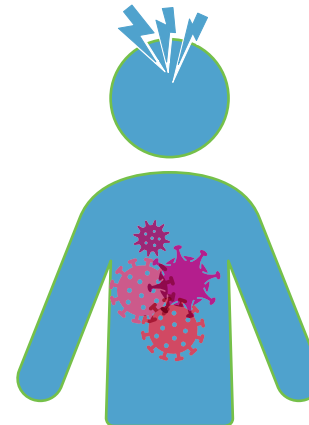
HIV has infected and taken over lots of your immune system's CD4 cells.



When another pathogen gets inside the body, the immune system doesn't know how to fight it.



The pathogen can multiply in the body and make you sick.



## Important points

- The immune system is the body's defence system, which recognises and fights off pathogens (germs).
- HIV weakens the immune system, which means that common pathogens can cause infections and illnesses.
- HIV treatment strengthens the immune system.