

How do vaccines work?

Vaccination is the safest way to protect your child against an infectious disease. Once your child has been vaccinated, they should have **immunity** to the disease.

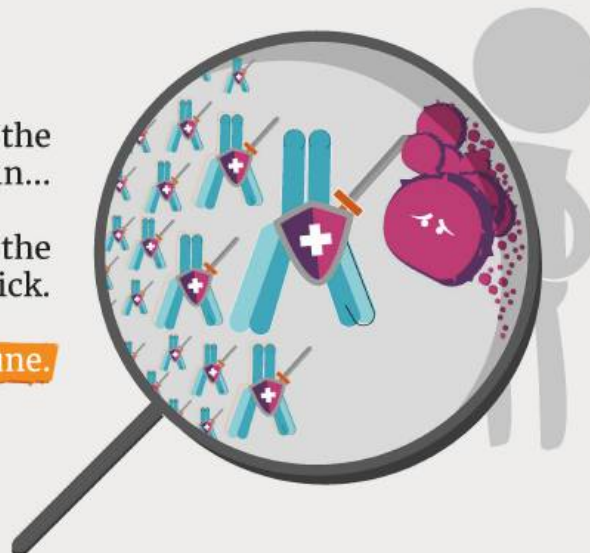
You are given a small amount of a harmless form of a disease...



Then if you encounter the disease again...

...your body already has the antibodies, so you don't get sick.

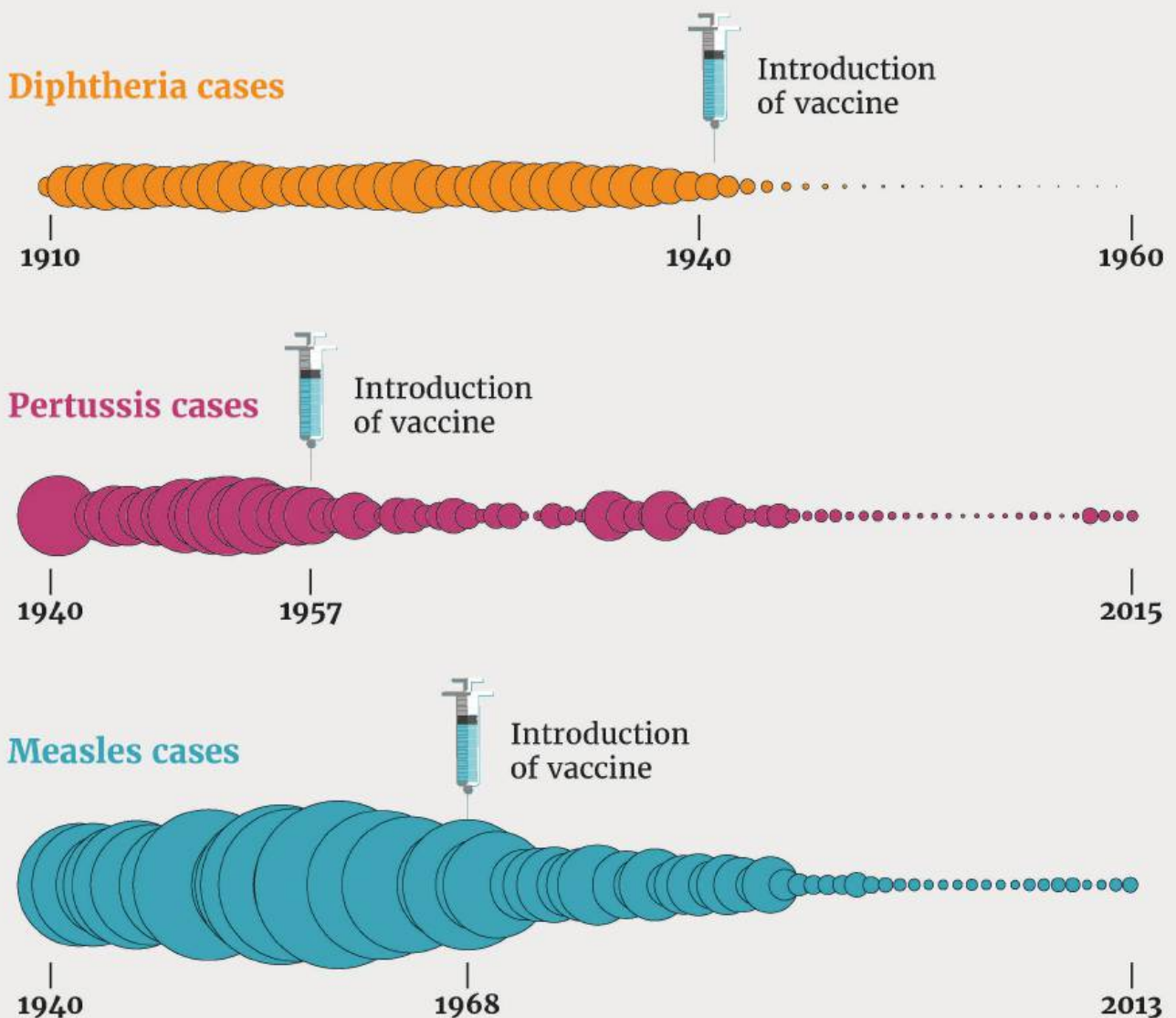
You are **immune**.



How effective is vaccination?

Vaccines are considered one of our greatest global health achievements and are estimated to save **2-3 million lives a year.**

Thanks to vaccines, life-threatening diseases that used to be common in young children in the UK are now relatively rare.



What is 'herd immunity'?

If only a few people are vaccinated...



...then one person is infected...the disease spreads very fast

But if lots of people are vaccinated...



...then the disease can't spread very far, so the whole community stays safe.

This is 'herd immunity'

What's in a vaccine?

Water

The main ingredient.



I'm a vaccine



Active ingredient

A very small amount of a harmless form of the bacteria or virus you are immunising against.

Preservatives and stabilisers

Maintain vaccine quality, safe storage and prevent contamination.

Example: Sorbitol; naturally found in fruit in larger amounts.



Adjuvants

Create a stronger immune response to the vaccine. Pose no significant risk to health in the very small quantities used.

Example: Aluminium; naturally found in drinking water at higher levels.



Residual traces of substances that have been used during vaccine manufacture, measured as parts per million or billion in the final vaccine.

Example: Formaldehyde; naturally found in human body.