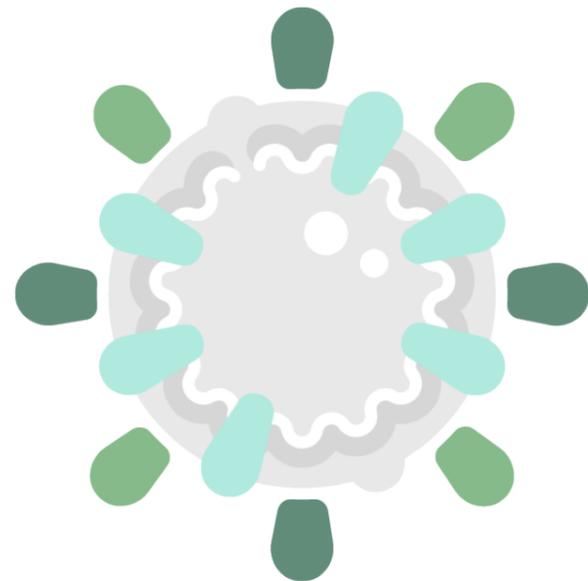
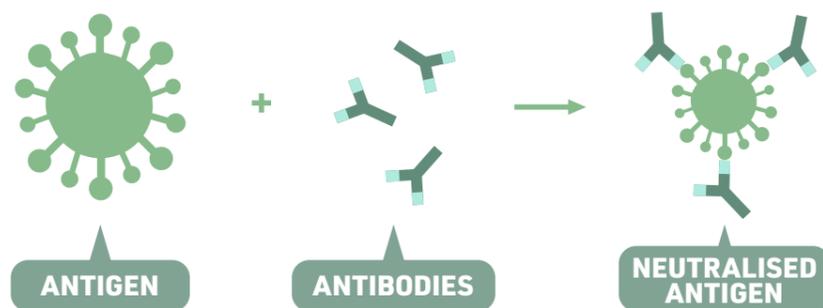


# ANTIBODY TESTS PART 1: WHAT THE TESTS TELL US



## WHAT ARE ANTIBODIES?

Your body makes antibodies when it detects an infectious agent (an antigen). Antibodies neutralise and destroy antigens.



Once we've recovered from an infection, our immune cells "remember" the antigen. If we are reinfected, antibodies are rapidly made to remove it. This is immunity; it's life-long for some diseases and fades over time for others.

## WHAT ANTIBODY TESTS TELL US

Antibody tests usually test for the presence of two different types of antibody: IgM and IgG. IgG is the most common antibody produced in the body in response to an infection.

### IgM antibodies

**Production starts 5–10 days after infection**

**Production peaks around 21 days after infection**

**Remain detectable 2–4 months after infection**

### IgG antibodies

**Production starts 10–14 days after infection**

**Production peaks 4–8 weeks after infection**

**Remain detectable for months or years after infection**

Antibody tests can tell us if someone has had an infection in the past.

## ANTIBODY TEST RESULTS

IgM	IgG	Result
✗	✗	No infection*
✓	✗	Early-stage infection
✓	✓	Active/recent infection
✗	✓	Past infection

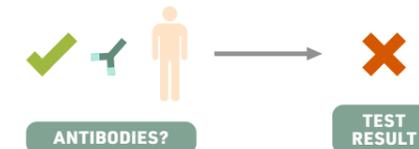
\*Antibodies don't appear until someone has had an infection for several days, so this doesn't guarantee they're not infected.

Having antibodies against an antigen isn't a guarantee of immunity. Levels of antibodies and their effectiveness are also important.

## ANTIBODY TEST ACCURACY

The accuracy of antibody tests is determined by their sensitivity and their specificity. These measures tell us how often a test produces false negative and false positive results.

### FALSE NEGATIVE



### FALSE POSITIVE



A false negative is when the test returns a negative result when someone has antibodies against an antigen. A false positive is when the test returns a positive result for someone who doesn't have antibodies against the antigen.

## SENSITIVITY

Sensitivity measures the correct production of positive results. The higher the sensitivity, the fewer false negative results are produced.



## SPECIFICITY

Specificity measures the correct production of negative results. The higher the specificity, the fewer false positive results are produced.

