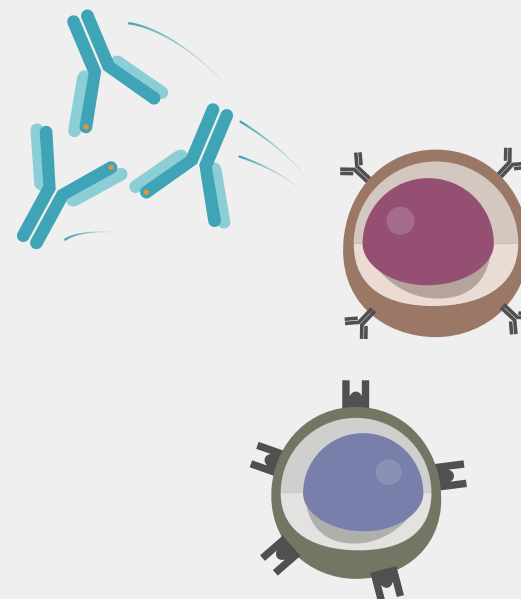


# COVID-19, long-term immunity and vaccines

Vaccines train your immune system using a harmless form of the virus.



The **vaccine** activates your **adaptive immune response**.



The adaptive immune response involves:

**B cells** that make highly specific **antibodies** to stop the virus getting into your cells.

**T cells** that can help stimulate the B cells and kill any infected cells.



These cells remember the virus and remain in the body. This is **immune memory**.

If you encounter the real virus in the future, your immune system responds faster and more effectively to prevent infection. This is **long-term immunity**.

**An effective COVID-19 vaccine will produce a strong, long-term, adaptive immune response. It might stimulate B cells and specific antibodies or T cells or a combination of both.**