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.