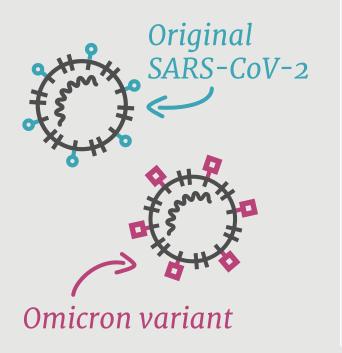
COVID-19 vaccination & viral variants



What is a viral variant?

What is immunity?

A version of the SARS-CoV-2 coronavirus that has evolved & changed shape, which can alter its behaviour.



The immune response generated by **vaccination or infection** activates:

B cells which make highly specific antibodies that bind to the virus & stop it entering your cells. **T cells** which can stimulate B cells & kill infected cells.



Some viral variants can infect you even when you have immunity.

Antibodies aren't as good at recognising the variant's shape so the virus can cause an infection. This is likely to cause less severe disease if you're vaccinated.



The cells & antibodies remain in the body to protect against future infection. This is **immunity** but immunity can wane over time.

Boosters are important for enhancing immunity

Immunity to COVID-19 is variable between different people. Each time you are vaccinated, your immunity levels increase, giving you greater protection against severe disease.

Level of immunity - needed to protect against Omicron viral variant

No vaccine yet, zero immunity

> Immunity from one and/or two doses of COVID-19 vaccine

Level of immunity

needed to protect

against original

coronavirus

Immunity from two vaccine doses **plus booster dose**



Booster vaccinations are **effective & safe** at enhancing immunity. Booster vaccines increase the **level & quality of antibodies** & improve T cells. This is the best protection against viral variants & severe COVID–19.



Information accurate at time of publishing, December 2021