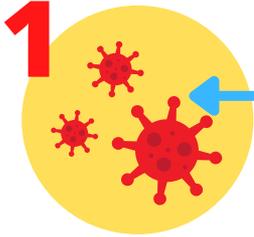


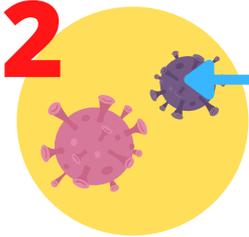
THE DIFFERENT VARIANTS OF COVID

EXPLAINED



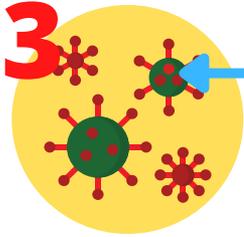
1 Alpha Variant (lineage B.1.1.7)

On 2 February 2021, Public Health England reported the detection of a limited number of B.1.1.7 with E484K mutations, which they dubbed Variant of Concern 202102/02 (VOC-202102/02). Other names for this variant include B.1.1.7+E484K and B.1.1.7 Lineage with S: E484K. One of the mutations (N501Y) is also present in the Beta variant and Gamma variant.



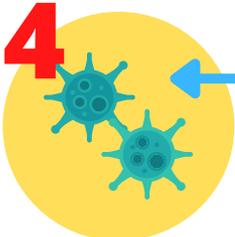
2 Alpha Variant with E484K

Lineage B.1.351 of SARS-CoV-2 was first reported in South Africa in May 2020. It is also known as 501.V2, 20H/501Y.V2 or 501Y.V2. Its prevalence is higher among young people with no underlying health conditions and is more frequently resulting in serious illness in comparison with other variants. On 18 December 2020, WHO declared it as a Variant of Concern (VOC). On 31 May 2021, WHO named it Beta.



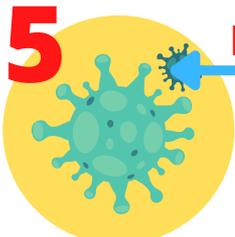
3 Beta Variant (lineage B.1.351)

Lineage P.1 of SARS-CoV-2 was first reported in Brazil in November 2020. It is a descendent of lineage B.1.1.28. It has 17 unique amino acid changes, 10 of which in its spike protein, including the three concerning mutations: N501Y, E484K and K417T. It showed 2.2 times higher transmissibility with the same ability to infect both adults and elderly people. On 11 January 2021, WHO declared it as a Variant of Concern (VOC). On 31 May 2021, WHO named it Gamma.



4 Gamma Variant (lineage P.1)

Lineage B.1.617.2 of SARS-CoV-2 was first reported in India in October 2020. On 11 May 2021, WHO declared it as a Variant of Concern (VOC) and named it Delta on 31 May 2021. It can spread almost twice as fast as the Alpha variant and carries L452R, T478K and P681R mutations. The highly transmissible Delta variant has mutated further to form the 'Delta plus' or 'AY.1' variant. However, the newly-added variant is not yet a 'variant of concern' as its incidence is still low in India.



5 Delta Variant (lineage B.1.617.2)

Lineage B.1.429, B.1.427 of SARS-CoV-2 was first reported in the United States in March 2020. It is defined by five distinct mutations-- I4205V and D1183Y in the ORF1ab-gene, and S13I, W152C, L452R in the spike protein's S-gene. On 5 March 2021, WHO designated it as Variant of Interest (VOI) and named it Epsilon on 31 May 2021.

