

WHAT YOU NEED TO KNOW ABOUT THE

DELTA VARIANT

WHAT IS A VARIANT?

Over time viruses undergo small changes in their structure, known as mutations. They mutate to ensure their survival. These changes are largely insignificant and mostly don't alter the behaviour of the virus. But sometimes, mutations can affect the way a virus interacts with our bodies and in turn change the course of an outbreak. Mutations or variants, can evade or escape the immune system, reduce the efficacy of vaccines and cause a surge in Covid-19 cases.

Importantly, researchers agree that the higher the number of people vaccinated, the less likely a virus will mutate and cause infections to rise.

WHAT IS THE DELTA VARIANT?

The Delta variant, technically called B.1.617.2, was first detected in India in October 2020 and is one of a number of SARS-CoV-2 variants. The variants were named after Greek letters (Alpha, Beta, Delta and Gamma etc.) after the World Health Organisation (WHO) realised that naming the variants after the countries in which they were first detected was a recipe for creating stigma and fuelling xenophobia.

Since the Delta was first detected in India, it has been driving up Covid-19 cases worldwide and is now in over 100 countries. It has become the dominant variant globally, spreading fast in countries with both low and high vaccination coverage. And it poses the greatest threat where vaccination rates are low.

The WHO declared Delta a variant of concern (VOC) in May 2021 when new infections in India reached more than 400,000 daily. A variant of concern is when a variant has increased transmissibility, causes more severe disease or if it makes treatments, vaccines or diagnostic tools (tests) less effective.

The WHO has listed three other VOC. They are the Alpha (B.1.1.7) variant which was first detected in the UK, the Beta (B.1.351) variant originating in South Africa and the Gamma (P.1) variant first flagged in Brazil.



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HOW TRANSMISSABLE (CONTAGIOUS) IS DELTA?

The Delta variant is the most transmissible of any of the other SARS-CoV-2 variants so far. This means it is able to spread from one person to another more efficiently or easily than the other variants. The US Centers for Disease Control and Prevention (CDC) says the Delta variant is more than two to three times as contagious as previous variants. One study estimated it as much as 60% more infectious than the Alpha variant.

Researchers have found that the Delta variant leads to a higher viral load meaning an increased amount of virus in the infected persons airways: as much as 1000 times higher than people infected with the original virus detected in Wuhan, China. This means that an individual who has been infected expels more virus into the air. Concerns are that if the Delta variant is better at infecting airway cells, people may become infected after lower exposure to the virus.

HOW EFFECTIVE ARE CURRENT VACCINES AGAINST THE DELTA VARIANT?

The data so far for existing vaccines are positive: research suggests vaccine efficacy of 67% with the Oxford-AstraZeneca vaccine and 88% with the Pfizer-BioNtech vaccine against Delta, while the manufacturers of Sputnik V claim that it is 90% effective against the Delta variant.

Studies have shown vaccines have lower efficacy in 70% of the elderly at care facilities and in immunocompromised patients. These groups are likely to be the first to be eligible for booster doses.

While the delta variant has impacted the efficacy of vaccines it's crucial to note that the vaccines have up to 95% efficacy in preventing serious illness and hospitalisation.

DOES THE DELTA VARIANT CAUSE MORE SEVERE DISEASE?

There is limited data on whether the Delta variant is more likely to result in severe illness. UK researchers found that the variant may be associated with a higher risk of hospitalisation. In two different studies from Canada and Scotland researchers found that unvaccinated people infected with the Delta variant were more likely to be hospitalised than patients infected with Alpha or the original virus strains. It's not clear whether this increased risk of hospitalisation also means more people are likely to die as a result of infection caused by Delta. Public health experts have pointed out that the rate at which it spreads results in more hospitalisations, but cautions that there is not yet conclusive evidence that Delta causes more severe disease and death.

CAN BREAKTHROUGH INFECTIONS OCCUR IN PEOPLE WHO ARE VACCINATED?

None of the current approved vaccines have 100% efficacy. So while vaccines do provide protection and it's less likely that a vaccinated person will be infected, breakthrough infections can occur. The symptoms in these cases are mild. The WHO recommends that individuals who are fully vaccinated continue to wear masks, sanitise and socially distance. This makes sense in the context of the small possibility of breakthrough infections.



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CAN A VACCINATED PERSON TRANSMIT THE DELTA VARIANT TO OTHERS?

Although breakthrough infections happen much less often than infections in unvaccinated people, individuals infected with the Delta variant, including fully vaccinated people with symptomatic breakthrough infections, can transmit it to others. The greatest risk of transmission, however, is among unvaccinated people who are much more likely to get the infection and therefore transmit the virus.

There has been some confusion around breakthrough infections and the chance of transmitting the virus to others if you become infected even after getting vaccinated. What is important is that studies are ongoing. The CDC raised concerns that vaccinated people who manage to get infected by Delta may produce the same amount of virus in their nose as unvaccinated people, meaning they could be as infectious or contagious. However this was based on a narrow analysis of an outbreak during festivities in which vaccinated people crowded into poorly ventilated buildings.

A large analysis of Delta transmission in the UK, found that vaccinated people carry, on average, lower levels of virus in their nose, which means less ability to transmit the virus; a recent study from Singapore and another from the Netherlands found that vaccinated patients were able to clear the virus much faster, shortening the number of days during which they might be contagious.

TIPS FOR REPORTING ON THE DELTA VARIANT

- As journalists we are lead by deadlines. But, if you are not sure of your facts wait until you are. **Spreading misinformation costs lives.**
- We need more stories demanding vaccine supplies for low income countries.
- **Journalism is powerful** and when responsibly done can save lives.
- **Be the change!**

HOW LONG DOES VACCINE IMMUNITY LAST FOR THE DELTA VARIANT?

Vaccine protection against the Delta variant appears to wane over time suggesting that booster shots will be needed for those who are fully vaccinated. It's not yet clear exactly how long immunity lasts for the various vaccines. However, current evidence of diminishing immunity has prompted the United States to introduce booster shots (in September) for the Pfizer BioNtech and Moderna vaccines. The move is controversial and has been heavily criticised by the WHO who says there is not enough scientific evidence that boosters are needed. The world body says the move is immoral and unethical as many countries have not yet even received a single dose.

HOW CAN JOURNALISTS MAKE STORIES ABOUT THE DELTA VARIANT MORE ACCESSIBLE TO AUDIENCES?

- **Ensure you understand** the scientific concepts and follow the research on the Delta variant.
- **Use simple language** to explain the complexity but don't lose the scientific facts.
- **Remind your audience** that scientific research is constantly evolving. New studies are being conducted that gives us more knowledge about the nature of the variant. Health experts give updated advice based on the latest research.
- **Explain to audiences** what measures they can take to prevent the variant from spreading: getting vaccinated, continued social distancing, mask wearing, hand washing/sanitising and avoiding super spreader events.
- **Have an ear close to the ground** so that you understand what people want answers to.
- **Ask credible experts** for the answers.
- **Tell stories about people** who were initially hesitant to get vaccinated and have now decided to get vaccinated; this makes for compelling reading.