

## Why it's different with Delta

Masks, social distancing and various restrictions helped us survive the first 2 waves. Rising vaccination rates shut down the 3<sup>rd</sup>. But with a total 65 % of our community fully vaccinated, and cases again on the rise, the 4<sup>th</sup> wave is going to be different. Delta is here and fully established in our community, and it is now changing the rules of engagement for this pandemic.

Delta transmits faster, replicates faster and makes you sick faster than any other variant. Delta can more easily grab on and enter cells lining our nose and throat. Once there, it reproduces at a much higher rate than other variants, rapidly producing a viral load that is a thousand times greater than the original COVID virus. With this much virus on board, every breath is fully loaded and anyone within range could be infected in only a few minutes. Delta takes only 4 days from the time you become infected until you can infect others, but symptoms often don't start till day 6. So, it is easy to infect a lot of people before you even know you are sick. In an unprotected population, 1 person can infect 4 people every 4 days, so it would take only 3 weeks to reach 1 000 cases.

Delta may also be making people of all ages sicker. Multiple studies have now concluded that unvaccinated individuals are twice as likely to be hospitalized with Delta than with previous variants. Unlike earlier versions of COVID, children and young adults seem more susceptible to moderate and severe disease, although the elderly and those with underlying health conditions are still at highest risk. Children, even in the preschool years are also more likely to get sick from and to transmit Delta to others.

Our vaccines are still extremely effective at preventing serious illness and death. While vaccines are less effective at preventing infection and transmission with Delta, especially in those not fully vaccinated, the vast majority of those hospitalized with COVID are unvaccinated. The others are primarily people whose immune systems did not respond properly to the vaccine, like the frail elderly, cancer and transplant patients and those taking immune suppressing drugs. In those fully vaccinated, infections are usually mild or asymptomatic. They are also half as likely to transmit the virus and recover much faster if they are symptomatic. People who are fully vaccinated may also be less likely to develop long COVID but more studies are needed to confirm this.

If you are young, healthy and fully vaccinated, your risk from Delta is probably low, but you can still be a risk to those of around you. With the start of school and no vaccines yet for children under 12, protecting them from infection also needs to be a priority. For now, we all need to keep the masks on, especially indoors or around those at risk, make careful choices and support our community.

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