



What are variants and why are they important?

- Like many viruses, and especially other coronaviruses, SARS-CoV2 (the virus that causes COVID-19) constantly mutates over time.
- Mutations are a way for the virus to survive and reproduce. Every few hours it survives longer or finds better ways to move from one person to the next, it creates an advantage for its own survival.
- These mutated forms of the virus are called “variants.”
- New variants will continue as long as lots of people are exposed to and carry the virus. As the virus adapts to our immune system, it identifies ways to survive.
- The more the variants adapt to our immune system, the more likely they are to become variants of concern.

What is a variant of concern?

- Variants of concern means that the virus has mutated into a variant that can:
 - rapidly infect humans
 - affect how well vaccines work, and/or
 - transmit more easily from person to person
 - result in more severe disease
 - make the virus less responsive to treatments

What about the Delta variant?

- The Delta variant has become the main variant in the US (August 2021) and has caused a huge wave of new infections, especially in the Southeastern US, where vaccination rates are low. There are greater numbers of COVID cases, hospitalizations, and deaths in states where fewer people are vaccinated.
- ***The Delta variant is estimated to be 4x more infectious than any other previous variant of SARS COV-2.***
- The Centers for Disease Control and Prevention (CDC) estimates that each person who has the Delta variant transmits it to approximately 5 other people.
- We know that full vaccination with the Pfizer, Moderna, AstraZeneca, and Johnson & Johnson vaccines greatly protects people from getting sick with COVID-19, including from the Delta variant. However, protection against the Delta variant is lower than what we saw with the ancestral/original virus.
- In the US, the vast majority of COVID cases, hospitalizations and deaths are occurring among people who are not vaccinated. ***COVID infection is 25x more frequent in unvaccinated vs. vaccinated people.***
- The Delta variant, because of its high infectivity, seems to be able to break through the immune responses that come from vaccination more frequently than the other variants. This occurs as immunity wanes or decreases and is seen more in older persons and people with compromised immune systems.
- While Delta infection is usually mild in vaccinated people, occasionally vaccinated people do get severe disease and need hospitalization. This occurs more often in older persons. In one study, the median age of vaccinated persons who were hospitalized with COVID-19 was 78 vs. 54 in the unvaccinated.

Do I need a booster shot?

- The CDC now recommends an ***additional dose*** of the two-dose messenger RNA vaccines for individuals who are moderately to severely immunocompromised since they often do not build enough, or any, protection against the virus. ***This is different than a booster shot!***
- A booster shot is an extra dose given to those who did build enough protection, but that protection has started to wane or decrease with time.
- Boosters are currently under review and expected to be authorized by the FDA soon.
- When boosters have been authorized, it will likely mean you will get another shot of the same vaccine you received previously, scheduled about 8 -12 months after your last shot.

What should I do now?

- Wear a mask indoors whether you are vaccinated or not.
- Continue to practice physical distancing and frequent hand washing/sanitizing.
- Get vaccinated if you haven't already done so!!