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COVID-19 Variants & the COVID-19 Vaccine

Genetic variants of SARS-CoV-2 have been emerging and circulating around the world throughout the COVID-19 pandemic. Variant viruses are of particular concern because they can spread more easily, cause more severe disease, or may escape the body's immune response. Viral mutations and variants are routinely monitored through sequence-based surveillance, laboratory studies, and epidemiological investigations. In Massachusetts, our state laboratory conducts this monitoring. Information about variants is rapidly emerging.

The Center for Disease and Control (CDC) is currently monitoring multiple variants. Currently there are six notable variants circulating in the United States: B.1.1.7 (Alpha), B.1.351 (Beta), P.1 (Gamma), B.1.427 and B.1.429 (Epsilon), and B.1.617.2 (Delta).

These variants seem to spread more easily and quickly than other variants, which may lead to more cases of COVID-19. An increase in the number of cases will put more strain on healthcare resources, lead to more hospitalizations, and potentially more deaths.

Based on current data, the Alpha variant is the most common variant across the country. It is believed that the Alpha variant is starting to decline as the Delta variant increases. The Delta variant is more transmissible than other variants and is believed to be able to outcompete other variants and will likely become the most common variant in the United States. The CDC reports that the Delta variant now accounts for 20% of the positive COVID-19 cases in the United States.

According to the CDC, current data suggest that COVID-19 vaccines authorized for use in the United States offer protection against most variants currently spreading in the United States. However, some variants may still cause illness in some people even after they are fully vaccinated; however, it is expected that vaccinated individuals will experience a less severe illness than those who are unvaccinated.

The CDC recommends you take the following steps to continue to protect yourself from the COVID-19 virus:

- Get a COVID-19 vaccine when it is available to you.
- Wear a mask that covers your nose and mouth to protect yourself and others.
- Stay 6 feet apart from others who do not live with you.
- Avoid crowds and poorly ventilated indoor spaces.
- Wash your hands often with soap and water. Use hand sanitizer if soap and water are not available.

Additional Resources

1. Find a COVID-19 vaccine: COVID-19 Vaccine | Mass.gov
2. COVID-19 Vaccine Information: COVID-19 Vaccines Work | CDC
3. COVID-19 Variant Information: About Variants of the Virus that Causes COVID-19 | CDC and SARS-CoV-2 Variant Classifications and Definitions (cdc.gov)
4. Bedford Health Department COVID-19 Information: COVID-19 (Coronavirus) | bedfordma