



Association of  
Immunization  
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## Talking Points: Vaccine Effectiveness and Variant Strains of the COVID-19 Virus

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**Background:** Since the original strain of COVID-19 was identified in late 2019, scientists have identified multiple COVID-19 variants in the U.S. and around the world, causing concern about the effectiveness of the COVID-19 vaccines.

Of the multiple variants spreading around the world and the US., six are variants of concern ([VOC](#)). Scientists believe the current COVID-19 vaccines should provide protection, especially against the variant of most concern – the Delta variant.

- There are six variants of COVID-19 that are concerning to scientists in the United States, especially the Delta variant, which seems to spread more easily and quickly than other variants and may lead to increased cases of COVID-19.
- Scientists believe a complete series of any of the current vaccines – 2 doses of Pfizer or Moderna and one of Johnson & Johnson – should provide protection against the Delta variant.
- Early data show the COVID-19 vaccines that are authorized in the U.S. may work against some variants but could be less effective against others.
- To protect yourself from COVID-19 and from any of the variants that are circulating, get a [COVID-19](#) vaccine when it is available to you and complete the vaccine series to ensure full protection.

Of the six COVID-19 variants that are of concern to U.S. scientists, none are considered of “[high consequence](#).”

- Viruses constantly change by mutating, which is how they spread and survive—some emerge and then disappear, while others persist.
- Scientists classify the COVID-19 variants in three ways: variants of high consequence (VOHC), variants of concern (VOC) and variants of interest (VOI).

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- As of June 18, 2021, **no** VOHC have been identified in the U.S., but there have been six strains considered VOC: B.1.1.7 (Alpha), B.1.351 (Beta), P.1 (Gamma), B.1.427 (Epsilon), B.1.429 (Epsilon) and B.1.617.2 (Delta).

Of the six variants found to be [circulating](#) in the U.S., the Delta variant, which keeps changing and is becoming the world's predominant viral strain, is of most concern to scientists.

- The Delta variant is connected with higher risk of spreading and may lead to more severe disease and hospitalizations, particularly among younger people and those who are unvaccinated.
- Many symptoms of the Delta variant are similar to the original COVID-19 virus symptoms, such as headaches, sore throat and runny nose.
- There are concerns that this variant may cause more severe and new symptoms, such as hearing loss and gangrene.
- To date, scientists believe a complete series of any of the current vaccines authorized in the US – two doses of Pfizer or Moderna or one dose of Johnson & Johnson – should provide protection against the Delta variant.

**Scientists continue to study the variants to see how they spread and what happens when people are infected with the new strain.**

- Scientists are still learning how well the vaccines protect people with weakened immune systems, including those who take immunosuppressive medications.
- The Delta variant may not respond as well to specific COVID-19 treatments such as monoclonal antibody treatments.

**Some variants of the COVID-19 virus might cause illness in some people even after they are fully vaccinated. It is important that we [continue to be cautious](#).**

- If you are not vaccinated, continue to follow the CDC guidelines about [masking](#) and [social distancing](#).
- Avoid crowds and poorly ventilated indoor spaces.
- [Wash your hands often](#) with soap and water. Use hand sanitizer if soap and water aren't available.

#### **Additional Resources:**

[About Variants of the Virus that Causes COVID-19](#)

[Effectiveness of COVID-19 vaccines against hospital admission with the Delta \(B.1.617.2\) variant](#)

[Delta variant and COVID-19 vaccines: what to know](#)