NIHC would like to share the following information from an 8/4/2021 online article regarding breakthrough infections and the Delta Variant. Following that, we share information from RIDOH that shows vaccines are working and finally, we provide the latest information on Booster vaccines just released today.

The information in this story is accurate as of press time. As updates about coronavirus COVID-19 continue to evolve, it's possible that some information and recommendations in this story have changed since initial publication. We encourage you to check in regularly with resources such as the CDC, the WHO, and your local public health department for the most up-to-date data and recommendations.

While 164 million people in the United States have been vaccinated against COVID-19, there are rare cases in which fully vaccinated people contract the novel coronavirus. The CDC calls these cases "breakthrough cases" Centers for Disease Control and Prevention.

What Is a Breakthrough COVID-19 Infection?

Breakthrough infections occur when someone who has been fully vaccinated for at least 14 days contracts the virus, according to the CDC. Those who experience a breakthrough case despite being vaccinated for COVID-19 may experience less severe symptoms or may be asymptomatic, according to the CDC. Some symptoms associated with breakthrough COVID-19 infections, such as a runny nose, are less severe than the notable symptoms often linked to COVID-19, such as shortness of breath and difficulty breathing, according to the CDC.

On that note, even though breakthrough cases do happen, the number of breakthrough cases that result in serious illnesses, hospitalizations, or death are extremely low, according to the Cleveland Clinic — only about 0.0037 percent of vaccinated Americans, according to their calculations.

While it’s not considered a breakthrough case, it's worth noting that if a person is infected with COVID-19 prior to or shortly after vaccination, there is still a possibility they could come down with the virus, according to the CDC. That's because if a person hasn’t had enough time to build protection from the vaccine — aka the antibody proteins your immune system creates, which takes about two weeks — they could still fall ill.
Does This Mean the Vaccines Aren't Working?

Actually, breakthrough cases were expected to happen among vaccinated people. That's because no vaccine is ever 100 percent effective in preventing illness in those who are vaccinated, according to the CDC. In clinical trials, the Pfizer-BioNTech vaccine was found to be 95 percent effective at preventing infection; the Moderna vaccine was found to be 94.2 percent effective at preventing infection; and the Johnson & Johnson/Janssen vaccine was found to be 66.3% effective, all according to the CDC.

That said, as the virus continues to mutate, there may be new strains that aren't prevented as effectively by the vaccine, such as the Delta variant (more on that in a sec), according to the WHO; however, mutations should not ever make the vaccines completely ineffective, and they should still offer some protection. (Related: Pfizer's Working On a Third Dose of the COVID-19 Vaccine That 'Strongly' Boosts Protection)

How Common Are Breakthrough Cases?

As of May 28, 2021, a total of 10,262 breakthrough COVID-19 cases had been reported in 46 U.S. states and territories, with 27 percent reportedly asymptomatic, according to CDC data. Of those cases, 10 percent of patients were hospitalized and 2 percent died. Newer CDC data (last updated July 26, 2021), has counted a total of 6,587 breakthrough COVID-19 cases in which patients were hospitalized or died, including 1,263 deaths; however, the organization isn't 100 percent certain how many breakthrough cases exist. The number of COVID-19 vaccine breakthrough infections reported to the CDC is likely "an undercount of all SARS-CoV-2 infections among" the fully vaccinated, according to the org. Given symptoms of a breakthrough infection can be confused with that of the common cold — and given the fact that so many breakthrough cases can be asymptomatic — people may feel they don't need to get tested or seek medical attention.

Why, exactly, are breakthrough cases happening? For one, the Delta variant is posing a particular problem. This new-ish strain of the virus appears to spread more easily and come with a higher risk of hospitalization, according to the American Society for Microbiology. Plus, preliminary research shows that the mRNA vaccines (Pfizer and Moderna) are only 88 percent effective against symptomatic cases of the Delta variant versus their 93 percent effectiveness against the Alpha variant.

Consider this study released by the CDC in July detailing a COVID-19 outbreak of 470 cases in Provincetown, Massachusetts: Three-quarters of those infected were fully vaccinated, and the Delta variant was found in most of the genetically analyzed samples, according to the organization's data. "High viral loads [the amount of the virus an infected person may have in their blood] suggest an increased risk of transmission and raised concern that, unlike with other variants, vaccinated people with Delta can transmit the virus," said Rochelle Walensky, M.D., and director of the CDC, on Friday, according to The New York Times. Indeed, a Chinese study claims the delta variant viral load is 1,000 times higher than earlier strains of COVID, and the higher the viral load, the more likely it is that someone will spread the virus to others.
In light of these findings, the CDC recently implemented updated mask guidance for the fully vaccinated, suggesting people wear them indoors in areas where transmission is high, since vaccinated people can still get sick with and transmit the virus, according to the CDC.

What to Do If You Think You Have a Breakthrough Infection

So, what happens if you were exposed to someone who tested positive for COVID-19 but you yourself are fully vaccinated? It's easy; get tested. The CDC advises getting tested three to five days after potential exposure, even if you have no symptoms. On the flip side, if you feel sick — even if your symptoms are mild and you think it's just a cold — you should still get tested.

Although COVID-19 is still evolving — and, yes, breakthrough cases are possible — the vaccines remain the greatest protectors in combatting the pandemic. That, plus practicing reasonable personal hygiene (washing your hands, covering your sneezes and coughs, staying home if you're sick, etc.) and following updating CDC guidelines on mask wearing and social distancing to keep both you and others safe.

To maximize protection from the Delta variant and prevent possibly spreading it to others, wear a mask indoors in public if you are in an area of substantial or high transmission.

Delta Variant: What We Know About the Science

Updated Aug. 6, 2021

On July 27, 2021, CDC released updated guidance on the need for urgently increasing COVID-19 vaccination coverage and a recommendation for everyone in areas of substantial or high transmission to wear a mask in public indoor places, even if they are fully vaccinated. CDC issued this new guidance due to several concerning developments and newly emerging data signals. First is a reversal in the downward trajectory of cases. In the days leading up to our guidance update, CDC saw a rapid and alarming rise in the COVID case and hospitalization rates around the country.

- In late June, our 7-day moving average of reported cases was around 12,000. On July 27, the 7-day moving average of cases reached over 60,000. This case rate looked more like the rate of cases we had seen before the vaccine was widely available.

Second, new data began to emerge that the Delta variant was more infectious and was leading to increased transmissibility when compared to other variants, even in vaccinated individuals. This includes recently published data from CDC and our public health partners, unpublished surveillance data that will be publicly available in the coming weeks, information included in CDC's updated Science Brief on COVID-19 Vaccines and Vaccination, and ongoing outbreak investigations linked to the Delta variant.

Delta is currently the predominant strain of the virus in the United States. Below is a high-level summary of what CDC scientists have recently learned about the Delta variant. More information will be made available when more data are published or released in other formats.

Infections and Spread

The Delta variant causes more infections and spreads faster than early forms of SARS-CoV-2
The Delta variant is more contagious: The Delta variant is highly contagious, more than 2x as contagious as previous variants.

Some data suggest the Delta variant might cause more severe illness than previous strains in unvaccinated persons. In two different studies from Canada and Scotland, patients infected with the Delta variant were more likely to be hospitalized than patients infected with Alpha or the original virus strains.

Unvaccinated people remain the greatest concern: 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. CDC is continuing to assess data on whether fully vaccinated people with asymptomatic breakthrough infections can transmit. However, the greatest risk of transmission is among unvaccinated people who are much more likely to contract, and therefore transmit the virus.

Fully vaccinated people with Delta variant breakthrough infections can spread the virus to others. However, vaccinated people appear to be infectious for a shorter period: Previous variants typically produced less virus in the body of infected fully vaccinated people (breakthrough infections) than in unvaccinated people. In contrast, the Delta variant seems to produce the same high amount of virus in both unvaccinated and fully vaccinated people. However, like other variants, the amount of virus produced by Delta breakthrough infections in fully vaccinated people also goes down faster than infections in unvaccinated people. This means fully vaccinated people are likely infectious for less time than unvaccinated people.

Vaccines

Vaccines in the US are highly effective, including against the Delta variant

The COVID-19 vaccines authorized in the United States are highly effective at preventing severe disease and death, including against the Delta variant. But they are not 100% effective and some fully vaccinated people will become infected (called a breakthrough infection) and experience illness. For such people, the vaccine still provides them strong protection against serious illness and death.
Masks

Given what we know about the Delta variant, vaccine effectiveness, and current vaccine coverage, layered prevention strategies, such as wearing masks, are needed to reduce the transmission of this variant.

- At this time, as we build the level of vaccination nationwide, we must also use all the prevention strategies available, including masking indoors in public places, to stop transmission and stop the epidemic.
- Vaccines are playing a crucial role in limiting spread of the virus and minimizing severe disease. Although vaccines are highly effective, they are not perfect and there will be vaccine breakthrough infections. Millions of Americans are vaccinated, and that number is growing. This means that even though the risk of breakthrough infections is low, there will be thousands of fully vaccinated people who become infected and able to infect others, especially with the surging spread of the Delta variant. Low vaccination coverage in many communities is driving the current rapid and large surge in cases associated with the Delta variant, which also increases the chances that even more concerning variants could emerge.

References


Source: https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html#print
NIHC would like you to know

Vaccines Work!

*Breakthrough Cases Among Fully Vaccinated Rhode Islanders*
Data are updated weekly on Wednesday

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The Narragansett Indian Health Center and Tribal leadership will be discussing the upcoming recommendations for booster vaccines for those immunocompromised or those beyond 8 months from completion of their vaccine. Please stay tuned for further details.

The RiDOH New Cases data continues to rise

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7-day Percent Positive

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RI remains in the **HIGH Transmission** category
Vaccination with the Moderna and Pfizer COVID-19 Vaccine produced neutralizing titers against all variants tested, including additional versions of the Beta variant (B.1.351, first identified in South Africa), three lineage variants of B.1.617 (first identified in India), including the Kappa (B.1.617.1) and the Delta variants (B.1.617.2);

New data produced on 8/13/2021 illustrated that the Moderna is continuing to perform well against the Delta Variant.

The New England Journal reported in the article Effectiveness of Covid-19 Vaccines against the B.1.617.2 (Delta) Variant July 21, 2021 that the effectiveness of two doses of Pfizer vaccine was 93.7% among persons with the alpha variant and 88.0% among those with the delta variant.

Masking Requirements

If you're not fully vaccinated, RIDOH recommends that you continue to wear a mask indoors near anyone you don't live with and outdoors in crowded places or during activities with close contact with other people who are not fully vaccinated.

You're fully vaccinated if you've gotten all recommended doses of a COVID-19 vaccine authorized US and more than 14 days have passed since the final dose.
Joint Statement from HHS Public Health and Medical Experts on COVID-19 Booster Shots

Media Statement
For Immediate Release: Wednesday, August 18, 2021
Contact: Media Relations
(404) 639-3286

Today, public health and medical experts from the U.S. Department of Health and Human Services (HHS) released the following statement on the Administration’s plan for COVID-19 booster shots for the American people.

The statement is attributable to Dr. Rochelle Walensky, Director of the Centers for Disease Control and Prevention (CDC); Dr. Janet Woodcock, Acting Commissioner, Food and Drug Administration (FDA); Dr. Vivek Murthy, U.S. Surgeon General; Dr. Francis Collins, Director of the National Institutes of Health (NIH); Dr. Anthony Fauci, Chief Medical Advisor to President Joe Biden and Director of the National Institute of Allergy and Infectious Diseases (NIAID); Dr. Rachel Levine, Assistant Secretary for Health; Dr. David Kessler, Chief Science Officer for the COVID-19 Response; and Dr. Marcella Nunez-Smith, Chair of the COVID-19 Health Equity Task Force:

“The COVID-19 vaccines authorized in the United States continue to be remarkably effective in reducing risk of severe disease, hospitalization, and death, even against the widely circulating Delta variant. Recognizing that many vaccines are associated with a reduction in protection over time, and acknowledging that additional vaccine doses could be needed to provide long lasting protection, we have been analyzing the scientific data closely from the United States and around the world to understand how long this protection will last and how we might maximize this protection. The available data make very clear that protection against SARS-CoV-2 infection begins to decrease over time following the initial doses of vaccination, and in association with the dominance of the Delta variant, we are starting to see evidence of reduced protection against mild and moderate disease. Based on our latest assessment, the current protection against severe disease, hospitalization, and death could diminish in the months ahead, especially among those who are at higher risk or were vaccinated during the earlier phases of the vaccination rollout. For that reason, we conclude that a booster shot will be needed to maximize vaccine-induced protection and prolong its durability.

“We have developed a plan to begin offering these booster shots this fall subject to FDA conducting an independent evaluation and determination of the safety
and effectiveness of a third dose of the Pfizer and Moderna mRNA vaccines and CDC’s Advisory Committee on Immunization Practices (ACIP) issuing booster dose recommendations based on a thorough review of the evidence. We are prepared to offer booster shots for all Americans beginning the week of September 20 and starting 8 months after an individual’s second dose. At that time, the individuals who were fully vaccinated earliest in the vaccination rollout, including many health care providers, nursing home residents, and other seniors, will likely be eligible for a booster. We would also begin efforts to deliver booster shots directly to residents of long-term care facilities at that time, given the distribution of vaccines to this population early in the vaccine rollout and the continued increased risk that COVID-19 poses to them.

“We also anticipate booster shots will likely be needed for people who received the Johnson & Johnson (J&J) vaccine. Administration of the J&J vaccine did not begin in the U.S. until March 2021, and we expect more data on J&J in the next few weeks. With those data in hand, we will keep the public informed with a timely plan for J&J booster shots as well.

“Our top priority remains staying ahead of the virus and protecting the American people from COVID-19 with safe, effective, and long-lasting vaccines especially in the context of a constantly changing virus and epidemiologic landscape. We will continue to follow the science on a daily basis, and we are prepared to modify this plan should new data emerge that requires it.

“We also want to emphasize the ongoing urgency of vaccinating the unvaccinated in the U.S. and around the world. Nearly all the cases of severe disease, hospitalization, and death continue to occur among those not yet vaccinated at all. We will continue to ramp up efforts to increase vaccinations here at home and to ensure people have accurate information about vaccines from trusted sources. We will also continue to expand our efforts to increase the supply of vaccines for other countries, building further on the more than 600 million doses we have already committed to donate globally.”

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CDC works 24/7 protecting America's health, safety and security. Whether disease start at home or abroad, are curable or preventable, chronic or acute, or from human activity or deliberate attack, CDC responds to America’s most pressing health threats. CDC is headquartered in Atlanta and has experts located throughout the United States and the world.

Page last reviewed: August 18, 2021

Content source: Centers for Disease Control and Prevention