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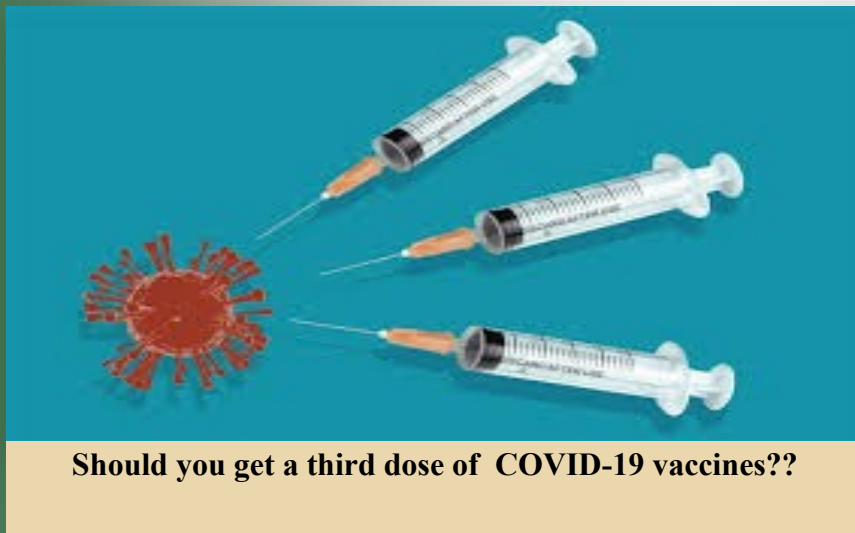
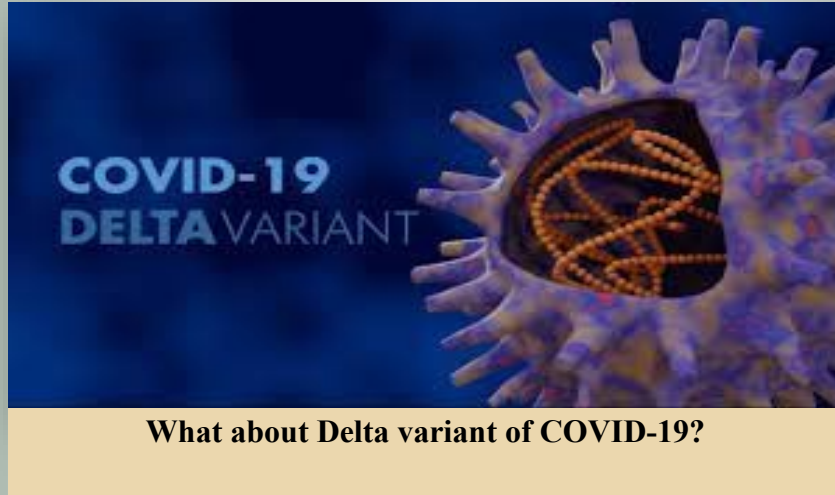
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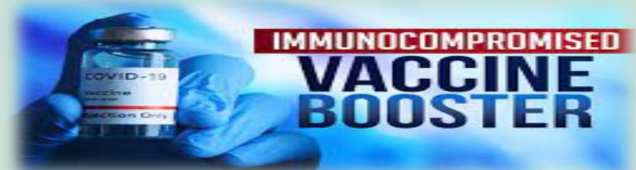
CDC endorses a third dose of mRNA vaccines for immunocompromised persons

The director of the Centers for Disease Control and Prevention (CDC), Rochelle Walensky, MD, has signed-off on an independent panel of 11 experts' suggestion to enable persons with weaker immune systems to get a third dosage of specific COVID-19 vaccines. The Advisory Committee on Immunization Practices (ACIP) of the (CDC) voted unanimously in favor of the decision which came just hours after the US Food and Drug Administration (FDA) amended the Pfizer and Moderna mRNA vaccines' Emergency Use Authorization (EUA).

Because of a medical condition they live with or a medicine they take to manage a health condition, about 7 million persons in the United States have moderately to severely compromised immune function. If they obtain COVID-19, those who fall into this category are more likely to be hospitalized or die. They are also more prone to pass the sickness on to others. Immunocompromised patients account for about 40% of vaccinated patients admitted to hospitals with breakthrough cases.

According to recent research, between one-third and half of immunocompromised persons who did not generate antibodies after two vaccine doses acquire some level of protection following a third dosage. Even though, vaccine protection for immunocompromised people is not as strong as it is for persons with sound immune systems, and several panel members were concerned that a third dosage may provide a false sense of security. Even after a third dose, persons who are immunocompromised should wear a mask indoors, keep a safe distance from others, and avoid big groups, according to the FDA's updated EUA. To safeguard these vulnerable individuals, family members and other close contacts should also be completely vaccinated.

Children as young as 12 years old who have received a Pfizer vaccine or those aged 18 and up who have had the Moderna vaccine will be eligible for boosters. People who have received one dose of the Johnson and Johnson vaccination have not been cleared to get a second dose of any vaccine at this time. The third shots, according to the FDA's amended EUA, are for those who have had solid organ transplants or have a "similar level of immunocompromise."



In careful contact with their doctors, the shots are intended for individuals who are moderately or severely immunocompromised, although those who might qualify include:

- Having solid tumors or blood cancers and needing treatment.
- After a solid organ transplant, you may need to take immunosuppressive medications.
- After two years of CAR-T therapy or a stem cell transplant.
- Who suffer from primary immunodeficiencies, which are rare hereditary illnesses that cause the immune system to malfunction
- HIV infection that is progressed or untreated.
- Using high-dose corticosteroids (greater than 20 milligrams of prednisone or its equivalent per day), alkylating drugs, antimetabolites, chemotherapy, TNF blockers, or other immunomodulation or immunosuppressive biologics.

These third dosages were not meant for those whose immune function had weakened with age, such as senior residents of long-term care homes, or persons with chronic conditions like diabetes, according to CDC specialists. The goal is to acquire a third dosage of the vaccine they have already received -Moderna or Pfizer - but if that isn't possible, it's fine if the third dose isn't the same as the first. The third dose should be given at least 28 days after the second and, ideally, before immunosuppressive medication begins. Because of the variability in the sorts of tests used to evaluate these antibodies and the difficulties in interpreting them, testing to measure neutralizing antibodies are not suggested before the shots are administered. At this time, it's unclear how many neutralizing antibodies are required for protection.

At this time, it is unclear how many neutralizing antibodies are required for protection. The CDC also hinted that supplemental shots should be considered for patients whose protection has weakened in the months since they finished their vaccine series, especially elderly. According to CDC data, almost 75 % of those hospitalized with vaccination breakthrough cases are over the age of 65. As the Delta strain continues to wreak havoc on less-vaccinated states and counties, these considerations are becoming more pressing.



According to Heather Scobie, PhD, MPH, a member of the CDC's COVID Response team, highlighted data from four countries showing that while the Pfizer vaccine is still very efficient at preventing hospitalizations and death, it is considerably less likely to prevent an infection that causes symptoms when faced with Delta.

In Qatar, where the Moderna vaccination is also used, Pfizer's Delta vaccine prevented symptomatic infections 54 % of the time, compared to 85 % with Moderna's. Pfizer's diminishing efficacy could be due to the fact that it administers a lower dose than Moderna. The suggested dose interval for Pfizer is similarly shorter, at 3 weeks against 4 weeks for Moderna. Scobie claims that extending the time between doses has been demonstrated to improve vaccine effectiveness. Both injections were nearly 100 % effective at avoiding SARS-CoV-2 infection in February 2021, but by July, Pfizer's efficacy against Delta had declined to between 13 and 62 %, while Moderna's was still successful at preventing infection between 58 and 87 % of the time. In July, Pfizer's COVID-19 vaccine was between 24 % and 94 % effective at preventing hospitalization, while Moderna's vaccine was between 33 % and 96 % effective.

References:

Brenda Goodman, MS . CDC Officially Endorses Third Dose of mRNA Vaccines for Immunocompromised. Available at: https://www.medscape.com/viewarticle/956609#vp_1. Accessed in August, 2021.

By: Marwa EL-Sayed, PGCPD.



Is the Delta variant more dangerous to children?

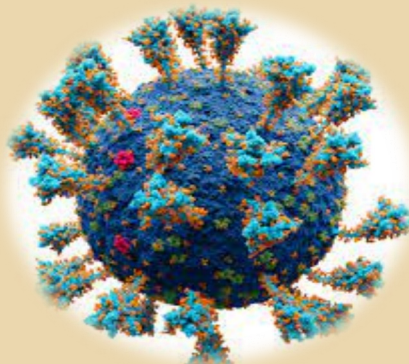
The Delta variant of COVID-19 has been called a variant of concern by WHO because of its high transmissibility. Where the Delta variant is identified, it quickly and efficiently spreads between people. As of 10 August, the Delta variant has been reported in 142 countries and is expected to continue spreading, which is highly contagious; about twice as infectious as previous variants. However, the same precautions, such as avoiding crowded spaces, keeping your distance from others, and mask-wearing, still work against the Delta variant.



Throughout the pandemic's duration, COVID-19 has been a less serious illness for children than it has been for adults, and that continues to be true. Emerging data from a large study in Canada suggest that children who test positive for COVID-19 during the Delta wave may be more than twice as likely to be hospitalized as they were when previous variants were dominating transmission.

The new data support what many pediatric infectious disease experts say they have seen: younger kids with more serious symptoms. But that does not mean that the Delta variant specifically targets children. There are increased rates of infection across all age groups. However, the Delta variant is more contagious than other strains, and people who are mixing socially and unvaccinated are more susceptible to contracting the Delta variant.

The WHO-approved COVID-19 vaccines continue to be highly effective at preventing severe illness and death, including against the Delta variant. When it is your turn, make sure to get vaccinated. **If your vaccination involves two doses**, it is important to receive both to have maximum protection. The vaccines protect most people from getting sick, but no vaccine is 100 % effective yet.



A small number of vaccinated people may get infected with COVID-19; this is called a breakthrough infection, but they are likely to have milder symptoms. The Delta Plus variant contains a new mutation in the spike protein the virus uses to enter human cells. Because it is closely linked to the Delta variant, it has been called Delta Plus rather than another letter in the Greek alphabet. So far, Delta Plus has been found in relatively low numbers.

References:

- *Unicef for every child. What you need to know about the Delta variant. Available at: <https://www.unicef.org/coronavirus/what-you-need-know-about-delta-variant>. Accessed in August, 2021.*
- *Medscape. US Pediatric Hospitals in Peril as Delta Hits Children. Available at: <https://www.medscape.com/view/article/956690>. Accessed in August, 2021.*

By: Mai Mousa, PharmD.



The story behind COVID-19 vaccines & anesthesia

A post has been circulating on social media claiming that anyone vaccinated against COVID-19 can not take anesthetics because doing so is life-threatening. The post included a story of a vaccinated man dying after receiving local anesthesia in a dentist's office.



What experts say?

There is no evidence to suggest that either type of anesthetics (local or general) are life-threatening or dangerous to use after getting any COVID-19 vaccine. Vaccine manufacturers have not issued any warning labels on any dangers of taking an anesthetic after getting a COVID-19 vaccine. Anesthetics could make a COVID-19 vaccine less effective. This is because a vaccine interacts with the immune system, and so does anesthesia, which can interfere with how a vaccine teaches the body to fight infection and temporarily puts extra strain on your immune system. Therefore, the American Society of Anesthesiologists recommends the following:

- ⇒ **If you've been vaccinated**, your surgery should be scheduled at least two weeks after your final dose so that you are fully protected.
- ⇒ **In case of past COVID-19 infection**, waiting from four weeks (if you had no symptoms or only mild symptoms) to 12 weeks (if you had been admitted to the ICU) to have surgery.

The U.S. Centers for Disease Control and Prevention (CDC) simply recommends speaking to your doctor. Every case is different. It is best to talk to a doctor before making a decision about surgery with anesthetics, or taking any immune-suppressing medication or additional therapy (even basic pain-killers such as ibuprofen).



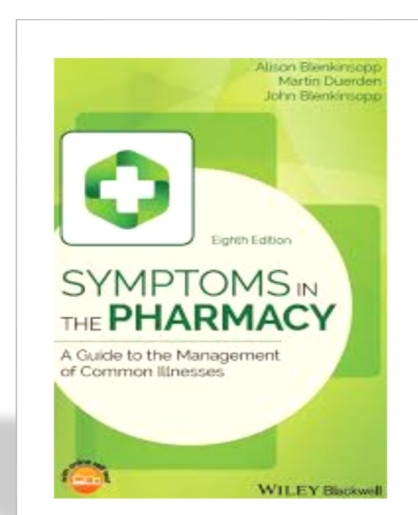
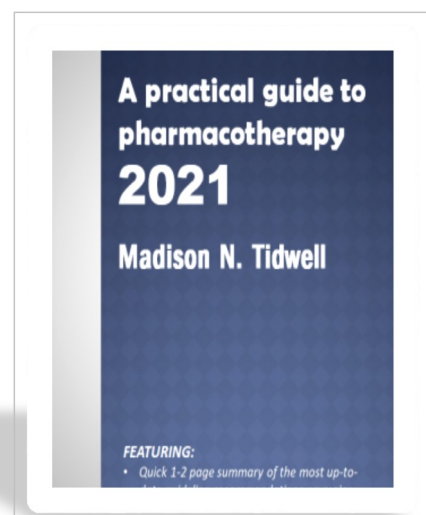
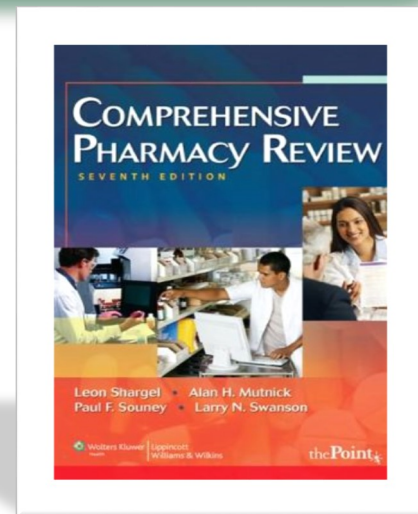
Delaying surgery or treatment unnecessarily can come with its own set of risks. These recommendations are made to ensure that the vaccine itself is fully protective, not because there is a threat of any harm.

References:

- *The American Society of Anesthesiologists. COVID-19 Has Changed Surgery Forever Available at: <https://www.asahq.org/about-asa/newsroom/news-releases/2021/03/covid-19-has-changed-surgery-forever>. Accessed in August, 2021.*
- *The U.S. Centers for Disease Control and Prevention. COVID-19 Vaccination and Other Medical Procedures Available at: <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/expect/other-procedures.html>. Accessed in August, 2021.*
- *Health desk. Is it dangerous to take anesthetics after getting a COVID-19 vaccination? Available at: <https://health-desk.org/articles/is-it-dangerous-to-take-anesthetics-after-getting-a-covid-19-vaccination>. Accessed in August, 2021.*

By: Bassant Maher, M.Sc

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