

# Davis Square Family Practice COVID Newsletter #21 July 19, 2021



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## An Important Survey on the COVID Vaccine

Most of our eligible patients have been vaccinated, but there are some who are still hesitant to receive the vaccine. We would like to better understand why and if there is any way we can be of assistance in answering concerns.

The [COVID VACCINE SURVEY](#) is only 4 questions long and should take less than 1 minute to complete.

## The Delta Variant and Booster Vaccines

The delta variant has become the predominant version of the COVID-19 virus. It is about 50% more infectious than the alpha variant that came out of Britain in December and that was already more infectious than previous mutations. Fortunately, the mutations involve the spike protein and **the vaccines we have focus on making antibodies to the spike protein, and they are still very effective against the delta variant.**

**Is it more dangerous?** Possibly. It appears to be more efficient in entering the lungs, but most cases are in young people as they are the least immunized group, and they tend to have milder cases of COVID-19. Almost all the people hospitalized now are unimmunized individuals.

**Are the symptoms different?** A runny nose is more common than in other versions of the virus and **cough is less common**. But shortness of breath, fever, and chills are just as common as in the prior Covid-19 iterations.

Here is a [good summary about the delta variant](#) out of Yale

**Booster doses?** No, not yet. Immunity seems adequate to prevent illness and especially serious illness from the delta variant. Frankly, Pfizer's claim that a third dose boosts antibodies to unheard of levels has me a bit concerned about increased side effects.

I have told some of our immune-compromised patients that it may be worthwhile to check for antibody to the spike protein for reassurance. Mind you, this is not officially recommended by experts as it doesn't prove that your immune system will protect you like a typical person. But I think it can be reassuring. If a booster is ever recommended for immune-compromised individuals (as it is in some countries), you should probably get the booster regardless of antibody levels that you already have.

## COVID Vaccine and Side Effects (Updated July 19, 2021 & in bold/italics)

**First of all, I want to make it clear - I am 100% in favor of everyone who is eligible getting vaccinated.** But while we are firm in our knowledge that we must get a very large percentage of our population vaccinated as fast as possible, we are very early in appreciating the full ramifications of the program. **A recent study released by Yale University and the Commonwealth Fund estimated that the COVID-19 vaccines had prevented 280,000 deaths and 1,200,000 hospitalizations through the end of June. That does not include the myriads who were prevented from the prolonged morbidity the disease can cause.**

***Recent reports that the Pfizer and Moderna vaccines have caused myocarditis (especially in males) has created some anxiety about vaccinating teens. The risk of developing myocarditis in a young male who contracts COVID is around 1/50. The estimate for males after the second dose of vaccine is about 1/62,000.***

***Guillain Barre Syndrome, a rare but serious neurological disorder, has been reported to occur rarely with the J&J vaccine. 3-5 cases per 1 million doses given vs 1 case per million people randomly. Most people do recover, and it is a known issue with other vaccines.***

***Here is an interesting discussion from a hematologist about the increased risk of blood clots from the J&J vaccine. [Blood Clots and COVID-19 Vaccine](#).***

The Pfizer and Moderna vaccines seem to work amazingly well - over 90% effective in preventing symptomatic disease. But they are also causing a high percentage of people to have temporary systemic symptoms (beyond the local sore arm). These symptoms are - fatigue, fever, chills, headache, nausea, vomiting, myalgias, joint pain, and abdominal pain. 50% of people had one or



more of these reactions after the first dose, and 70% after the second dose.

Young people had a higher rate of symptoms and the majority of the symptoms began within the first 1-2 days and most were classified as mild to moderate. I do not want to discourage anyone from getting vaccinated, but I cannot see how there will not be the occasional outlier who will have a consequential side effect. There are just too many strong systemic reactions for me to believe otherwise. nevertheless, conquering this disease is a team effort and so please continue to roll up your sleeve!!

Below is the link to the complete article.

### [JAMA Article on Reported Vaccine Side Effects](#)

## To Mask, or Not To Mask, That Is the Question

Here the the link to the new [CDC recommendations for masking](#). Click in the graphic on the CDC site to get a better view of the graphic on the right of the page. For those that have cancer or are immunocompromised these recommendations may need to be modified. EVERYONE is an individual and has their own personal and psychological needs for safety. The CDC admits it has made a calculated decision regarding masking. It is NOT saying that vaccinated people have no risk of contracting COVID. But the risk of contracting a severe case of COVID that would require hospitalization is so minimal, and the risk of spread from an immunized person is probably much lower that the change is warranted. It felt, and I agree, that the prior recommendations were akin to "the perfect being the enemy of the good."

As we are a medical facility, we will continue to require masking for patients and staff. In the exam room, if a patient has been immunized and is comfortable in taking their mask off, then they and the clinician can do so.

**As the Delta variant is on the rise in every state as of July 19 the recommendations for masking may change from the current recommendations.**

## How the Johnson and Johnson Vaccine Works as Well as the Moderna/Pfizer

**Below I have included links to detailed and exquisitely illustrated explanations of how the currently approved vaccines work.**

- [How the Johnson and Johnson vaccine works](#)
- [How the Moderna and Pfizer vaccines work](#)
- [New England Journal of Medicine Deep Dive into J&J Vaccine - audiofile](#)

All three approved vaccines work by getting some of our cells to manufacture parts of the spike protein that is on the outside of the COVID-19 virus. This allows our immune system to be able to recognize the spike protein immediately upon being exposed to the virus and to rapidly attack it. All three vaccines do this through messenger RNA. The J & J vaccine does this by introducing a piece of COVID-19 spike protein DNA into the cell and then that DNA produces spike-protein messenger RNA and eventually spike proteins.

The Moderna and Pfizer vaccines have the spike protein messenger RNA in them and enter cells directly.

It is our obligation to answer all your questions about the vaccines whether you are enthusiastic or hesitant to be immunized. One **misconception** that is making the rounds is **that the new J&J vaccine changes your DNA**. I actually found it challenging to find medical literature that addresses that subject. Fortunately, I have a friend and colleague that worked with Dr. Barouch who helped design the J&J vaccine. The human adenovirus used in the vaccine, which has been rendered incompetent to cause infection, has coronavirus DNA attached to it, but it DOES NOT incorporate into our own DNA. This adenovirus has been used in vaccines for over 20 years, without complications, in the mostly unsuccessful crusade to find an AIDS vaccine.

Ultimately, our chances to achieve herd immunity (a high enough percentage of the population being immune so that the virus cannot get from sick person A to person B, because all the persons B are immune. The non-immune person C is surrounded by so many immune Bs that they have minimal chance to meet up with person A before A is no longer contagious) will depend more on what percentage of people get vaccinated than on how effective one shot is over another.

Prior vaccines that have had serious (although rare) complications associated with them, such as the oral polio and yellow fever vaccine, have all shown up within 6 weeks of getting vaccinated. But this disease, COVID-19, is associated with up to 25% of people having symptoms for at least 4 weeks and 10% beyond 3 months. We are not just talking about old and debilitated people who become so-called 'long-haulers', but also, many young people who had apparently minor symptoms during the illness. So fear the devil you know (COVID-19), and don't overplay about the devil you don't know (the approved vaccines).

## The Skinny on COVID-19

### Common Symptoms

Fever, chills, cough, sore throat, shortness of breath, headache, fatigue, diarrhea. While a high percentage of people have no symptoms, if you have any one of the above symptoms, there is reason to quarantine yourself, notify us at Davis Square Family Practice, and get tested. **We will be particularly concerned to evaluate you for any symptoms resembling shortness of breath.**

### Incubation Period

You can come down with symptoms anywhere from 2-14 days from contact with an infected person, but usually by 5-7 days.

### Contagious Period

The contagious period is usually two (2) days prior to symptoms showing up and for up to seven (7) days after. No study of non-hospitalized people has shown the virus can be cultured out after eight (8) days from the start of symptoms. If you are asymptomatic then you could, in theory, be infectious for up to 14 days. The CDC is now okaying asymptomatic people who have been exposed to be tested between 5-7 days. If they test negative, then they can come out of quarantine at 10 days.



## What To Do To Prevent Getting COVID-19

Wear a mask and socially distance. Good hand hygiene is still considered important, but most transmission of COVID -19 is through the air. As noted earlier, contracting COVID from inert surfaces is VERY low. This **December 10th article in JAMA on how to make your mask more effective** is of value. If you twist the ear loops and tuck in the side pleats of a surgical mask, then you increase its efficacy by 50%. There were some nylon and cloth masks that were as good or better than the surgical mask with loops. Please read the article for more details.

## If You Get COVID-19, What To Do To Lower Risk of Complications

As noted in this issue, a baby aspirin may lower your risk for serious complication significantly if you become infected. Please contact our office before beginning a baby aspirin regiment if you are unsure if it is safe for you. **Monoclonal antibodies may lower the risk of hospitalization by over 50%.** Monoclonal antibodies may be what made the difference for the Former President Trump. Unfortunately, the two types of Monoclonal antibodies are not widely available.

Another recent study in hospitalized patients showed that those that were already on **statins, ACE-inhibitors, and calcium channel blockers were associated with a much lower risk of death.**

Vitamin D levels have been shown to be lower in people who have died from COVID-19. It may just be that people who are in poor health have lower Vitamin D levels, because they are more likely to be housebound and have less opportunity to make their own Vitamin D from sunlight. Still there have been suggestions that Vitamin D is helpful to lower risk for contracting COVID-19 and for having complications. It is safe for adults to take 1,000 to 2,000 international units (IU) of Vitamin D, and 600 IU of Vitamin D is already recommended for all children over 1 year of age (400 IU from birth to 1 year.)

Sincerely,

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