



American Academy of Pediatrics
Orange County Chapter
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COVID-19 Vaccine for Tweens and Teens

What vaccine will my child receive?

Your child will receive the Pfizer vaccine which has been studied and authorized by the Federal Drug Administration and the Centers for Disease Control and Prevention for individuals ages 12 years and older. Injected into the arm muscle, the vaccine is administered in two doses three weeks apart. Studies show that people achieve maximum immunity against COVID-19 about two weeks after receiving the second dose.

Will the vaccine protect my child from getting COVID-19?

The COVID-19 vaccine is extremely effective in preventing individuals from contracting COVID-19. Studies of adolescents ages 12 to 15 years have shown 100% efficacy; no children in the studies developed COVID-19, while some of those who received the placebo did. Studies showed nearly 100% efficacy for adolescents ages 16-18 years.

Will the protective effects of the vaccine wear off?

At this time the duration of protection is unclear. The vaccine is designed to give longer-lasting immunity than if you had the disease. People who have participated in early studies, as well as the population of vaccinated persons at large, will be followed by investigators to determine the duration of protective effects.

Is the vaccine safe for adolescents?

The Pfizer vaccine is extremely safe for children ages 12 years and older. The COVID-19 vaccines have gone through the same rigorous testing and safety checks that are required of all vaccines.

If adolescents are less likely to get sick from COVID-19, why do they need a vaccine?

Even though it is less common for children to get seriously ill from COVID-19 compared to adults, children can and have suffered significantly from the virus. More than 10,000 children across the country have been hospitalized, and hundreds have died from COVID-19. In addition to these sobering numbers, children can also develop significant illness after having COVID-19, even if their symptoms were mild or they had no

symptoms at all. These can include life-threatening diseases such as MIS-C (multi-inflammatory syndrome in children), myocarditis (inflammation of the heart which can lead to scarring), and symptoms such as chronic fatigue, developmental and behavioral disorders, and learning difficulties, which are currently being studied and described as “long-hauler symptoms.” Additionally, while social distancing has kept many children and adolescents safe from the virus, the pandemic has caused significant emotional and physical stress on the young generation who have suffered from depression, anxiety, and obesity. The COVID-19 vaccine protects children from the virus so they can now safely return to their full lives.

What is the status of vaccine research in younger children?

The COVID-19 vaccine will be approved for younger children only after rigorous safety and efficacy testing for this age group. Clinical trials for younger children are currently underway. We anticipate the vaccines to be approved in fall 2021 for children under 12 years of age.

Are there any adolescents who shouldn't get the vaccine?

An adolescent with a known allergy to one of the vaccine's components, mainly polyethylene glycol, shouldn't receive the vaccine, but this is rare. Polyethylene glycol is a common filler in many medications to help stabilize them and is used in the Pfizer vaccine for the same purpose. The likelihood of an allergic reaction is extremely rare and is treatable if it does occur. Just like adults, all children are monitored for 15 minutes after receiving the vaccine, and 30 minutes if they have a history of anaphylaxis to food or medications (carries an epinephrine auto-injector). If you have any questions about your child's specific allergies, please speak to your child's pediatrician.

What should I know about the development of the vaccine?

Given the emergency nature of the COVID-19 pandemic, extra funding and resources were provided to scientists to rapidly develop these vaccines. Scientists were able to follow the same safety and scientific processes they do for other vaccines and medications. The process was accelerated by performing several steps at the same time, but nothing was skipped. Because people were eager to be vaccinated, there were many volunteers to participate in the clinical trials which also helped the process move faster.

What is the difference between an mRNA vaccine and a viral vector vaccine?

The Pfizer and Moderna vaccines are mRNA vaccines. The mRNA technology has been studied and used for more than 10 years to treat other conditions. The vaccine works when our body's cells use the short-lived messenger RNA (mRNA) to create a

spike protein, a bump on the surface of coronavirus particles, and displays this to our immune system. In response, our immune system creates an army of protective antibodies without having to get infected with an entire COVID virus. Both the mRNA and the spike protein dissolve rapidly, leaving us with our antibody army to protect us when we are exposed to someone carrying the infectious COVID-19 virus.

The viral vector vaccine, such as Johnson & Johnson and AstraZeneca, is similar except instead of using messenger RNA to deliver the genetic instructions to make the spike protein, it uses a deactivated and harmless virus. Like mRNA, the virus dissolves rapidly in our body leaving us with a robust antibody army to fight the COVID-19 virus.

Can the mRNA vaccine affect a person's DNA?

No. The mRNA particle that is used by the vaccine does not affect DNA, (and it has no effect on fertility.) After it uses the cell machinery to create the spike protein, it dissolves and is eliminated.

Will the vaccine protect my child against COVID-19 variants?

Studies show that the vaccine protects individuals from developing serious forms of COVID-19, including illnesses caused by the current variants. However, until we stop the spread of the virus it can continue to mutate, and a vaccine-resistant strain could develop. The most important step in fighting variants is to quickly vaccinate as many people as possible. The more people who get sick – even mildly – with COVID-19, the greater the opportunity for the virus to mutate.

My child had COVID-19. Should they still get vaccinated?

Yes. We don't know how long the immunity lasts from natural illness, and the vaccine is made to create a longer lasting immune response. If you or your adolescent had the disease, you should get vaccinated within 90 days after you contracted the virus. If you received convalescent plasma or monoclonal antibody treatments, you should get the vaccine 90 days after treatment.

What can my adolescent do after they are vaccinated?

Once adolescents are fully vaccinated, they can socialize both indoors and outdoors unmasked, and they can travel in the US without needing to be tested or self-quarantine before or after travel. They can finally open up their world again and be kids!