



# Central California Pediatrics

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Specialty information for physicians who treat children and expectant mothers.



## COVID-19 Vaccines in the Real World

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In December 2020, the U.S. Food and Drug Administration (FDA) issued the first emergency use authorization (EUA) for use of the Pfizer-BioNTech and the Moderna COVID-19 vaccines. Since then, both vaccines have started to be distributed in the United States.

### How the COVID-19 Vaccines Work

The two current vaccines are mRNA vaccines. These do not utilize weakened or inactivated parts of the COVID-19 virus, but instead teaches cells how to make the spike protein found on the surface of the COVID-19 virus, which triggers an immune response from the body. This immune response produces B-lymphocytes and T-lymphocytes that protect the body from being infected if it encounters the real virus.

After the first injection of the COVID-19 vaccine, it typically takes a few weeks for the body to build immunity, which means a person can still be infected with the COVID-19 virus just before or after vaccination. Masks and other proper protective measures are still recommended.

### Are the Vaccines Safe?

Both COVID-19 vaccines have been evaluated in tens of thousands of individuals, who volunteered to be vaccinated and participate in clinical trials. None of the trial participants had a serious adverse event. The information from these clinical trials were reviewed very carefully and ultimately allowed the FDA to determine the vaccines are safe and effective.

### Further Real-World Studies

The Centers for Disease Control and Prevention (CDC) is now further assessing the effectiveness outside of clinical trials, through real-world assessments. These assessments compare groups of people, both who do get vaccinated and don't get vaccinated, and people who do get COVID-19 and don't get COVID-19, to find out how effective the vaccines are. These assessments provide additional insight on how well a vaccine is working in groups who were not well represented in the clinical trials.

### Who Should Not Get the COVID-19 Vaccine?

Right now, there are a handful of groups recommended to not receive the vaccine as research continues to determine safety for this population.

These groups include:

- Those who have a severe allergic reaction to any component of the vaccine
- People who have had another vaccine 14 days before receiving the COVID-19 vaccine or have one scheduling 14 days after receiving their dose
- People who have a fever on the day of the vaccine
- People who are in quarantine or isolation for COVID-19 exposure

Additionally, the Pfizer/BioNTech vaccine is not available to children under 16 years of age, and the Moderna vaccine is not available to people under 18.

### The Bottom Line

While these vaccines are being monitored at all times and more is being learned through observation and studies, it is encouraged that those who qualify to get the COVID-19 vaccine do so. The vaccine is safe, effective and a prime asset in stopping the pandemic.

For helpful answers to questions patients may commonly ask, visit <https://www.cdc.gov/vaccines/covid-19/downloads/healthcare-professionals-vaccine-quick-answers.pdf>.

Sources:  
<https://www.cdc.gov/vaccines/covid-19/downloads/healthcare-professionals-vaccine-quick-answers.pdf>  
<https://www.cdc.gov/vaccines/covid-19/downloads/hcp-employees-general-faqs.pdf>

## Upcoming CME Opportunities

### Lymphadenopathy – What Should a Pediatrician Do?

Presented by: Wendy Tcheng, MD

Thursday, February 24

12:15p.m. - 1:15 p.m.

Register for this CME at [cmetracker.net/VCH/](https://cmetracker.net/VCH/). Anyone may register through Valley Children's CME tracker.

Questions about registering?  
Contact us at [programs@valleychildrens.org](mailto:programs@valleychildrens.org) or 559-353-6621.



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