

Back to School. Safely.

The start of a new school year can be nerve-wracking for students and parents alike, particularly as COVID-19 continues to spread throughout our communities. To protect children's health throughout our state, Arkansas Children's has compiled the following information from healthcare leaders regarding COVID-19 vaccines and other preventative measures, like masking, that effectively keep kids safe where they learn and grow.

As children return to school, the facts and resources provided here can help guide your understanding and answer many of the most common questions you may have about protecting your child's health.

If you have additional questions or would like to schedule a COVID-19 vaccine appointment for your child, visit ARchildrens.org/GetMyVaccine.



COVID-19 Vaccines

What vaccines are currently available in the United States?

Vaccine	How many doses?	Effectiveness in real world situations?
Pfizer (mRNA)	2 doses, given 3 weeks apart	Both mRNA vaccines are similarly effective: >85% effective in preventing symptomatic COVID-19 infection >96% effective in preventing hospitalization from COVID-19 >65% effective in preventing asymptomatic infection
Moderna (mRNA)	2 doses, given 4 weeks apart	
Johnson & Johnson/Janssen (viral vector)	1 dose	77% effective in preventing symptomatic COVID-19 infection

The Moderna and Johnson & Johnson vaccines are authorized for use in people over 18 years of age in the United States. The Pfizer mRNA vaccine is also authorized for use in children 12 years of age and older. These vaccines do not alter your DNA.

What are the side effects of the COVID-19 vaccines?

Like other routine vaccinations, COVID-19 vaccines may cause short-term pain at the injection site. After the second dose, there may be more pain and systemic effects like fever, fatigue and muscle aches. These side effects are usually gone in a day or two. There are no concerns about long-term side effects or how the vaccine would impact people later in life. If you have concerns, we encourage you to talk to your care provider or contact Arkansas Children's directly.

The most common side effects of any COVID-19 vaccine are arm pain, fatigue, fever and body aches. These side effects are brief and typically get better without any intervention. These side effects come from the work your immune system is doing to "learn" from the vaccine so it can fight the real virus in the future. It does not mean that you are infected with COVID-19, and the vaccines do not contain live virus.



A few days after receiving the second dose of an mRNA-based COVID-19 vaccine, some children and young adults have developed mild inflammation of their heart, called myocarditis or pericarditis. In most cases, symptoms have gotten better quickly with rest and medications. This side effect is less common and less severe than the serious heart complications we have seen in children with COVID-19 infection. Vaccination is recommended for everyone 12 years of age and

older to prevent the serious complications associated with COVID-19 infection.

A rare side effect of the Johnson & Johnson COVID-19 vaccine may be seen in women under age 50, where they develop low platelets (a part of blood that helps with clotting) and blood clots. This is called thrombosis with thrombocytopenia syndrome. There are also rare reports of Guillain-Barre syndrome, although it is not clear that this is directly related to the vaccine. Guillain-Barre syndrome can occur after many viral infections and vaccines and is not specific to the COVID-19 vaccine. These side effects are very rare and have not been reported in the mRNA vaccines.

Do the vaccines work against the COVID-19 variants of concern, like the Delta variant?

All COVID-19 vaccines authorized in the United States are highly effective in preventing severe illness and hospitalizations due to COVID-19, including the Delta variant.

Does the vaccine help prevent COVID-19 from spreading in communities, even if a vaccinated person gets infected?

Several studies show that if a vaccinated person gets infected with COVID-19 (which is very rare and called a “breakthrough infection”), they have far less detectable virus in their system. That means they are less likely to spread infections to other people.

Vaccinating everyone age 12 and up is the best way to slow the spread of COVID-19 and protect children who are not yet old enough to be vaccinated.



Masking & Respiratory Viruses

The American Academy of Pediatrics says universal masking for all children over the age of 2 and vaccination against COVID-19 (if eligible) are the primary ways to keep kids safe in the classroom this year.

How do masks work?

- Masks can block particles, decreasing the amount of a respiratory virus you may breathe out or in. While viruses are small particles that can pass through masks, they often spread to others through larger droplets (in a cough or sneeze) from our mouth, nose and lungs. Masks, especially those with multiple layers, can block these larger droplets.
- Masks can also keep us from touching our nose or mouth, decreasing the spread of infections.



How do we know masks work to prevent the spread of COVID-19?

- Studies in laboratories show us that masks decrease the number of virus particles spread when we talk, sing and breathe.
- Many studies of masks used in the real world have also shown that masks decrease the spread of COVID-19 infection.
 - Mask wearing reduced the risk of infection by 70% in a study of 382 US Navy service members.
 - A study of 300,000 people across the U.S. found that having more people in the community wear masks was associated with having better COVID-19 control.
 - Studies in several regions showed that masking policies slowed the spread of COVID-19 infection in those areas.



Are there risks to wearing a mask?

- There is no evidence that wearing a mask increases your carbon dioxide level or any other gas in a significant or dangerous way.
- Wearing a mask can be uncomfortable, especially for children, so we recommend finding a mask that fits well and is comfortable enough to wear all day. Practice wearing a mask with your child.
- If your child is under 2 years old, cannot put on or remove a mask without help or is at risk of choking on a mask, they should not wear a mask.

Two things affect how a mask works:

- Fit (size and seal around your face): The better a mask seals around your nose and mouth, the better the mask is at protecting you and those around you. Be sure to use child-sized masks for children.

- Design: Multiple layers of tightly-woven material, without an exhalation valve, work best to control the droplets we breathe in and out. Exhalation valves allow exhaled particles through the mask that could potentially infect others with a respiratory virus like COVID-19. Both cloth and surgical masks can have multiple layers and be tightly woven enough to offer protection while still allowing you to breathe comfortably.

Sources for more information on COVID-19 vaccines:

[Science Brief: Background Rationale and Evidence for Public Health Recommendations for Fully Vaccinated People \(cdc.gov\)](#)

[Clinical Considerations: Myocarditis after mRNA COVID-19 Vaccines | CDC](#)

[Janssen COVID-19 Vaccine EUA Fact Sheet for Recipients and Caregivers 07122021 \(fda.gov\)](#)

[CDC Recommends Use of Johnson & Johnson's Janssen COVID-19 Vaccine Resume | CDC](#)

[Vaccines highly effective against B.1.617.2 variant after 2 doses - GOV.UK \(www.gov.uk\)](#)

[Initial report of decreased SARS-CoV-2 viral load after inoculation with the BNT162b2 vaccine | Nature Medicine](#)

[Prevention and Attenuation of Covid-19 with the BNT162b2 and mRNA-1273 Vaccines | NEJM](#)

Sources for more information on masking:

[Your Guide to Masks | CDC](#)

[Masks Do More Than Protect Others During COVID-19: Reducing the Inoculum of SARS-CoV-2 to Protect the Wearer | SpringerLink](#)

[Effectiveness of Cloth Masks for Protection Against Severe Acute Respiratory Syndrome Coronavirus 2 - Volume 26, Number 10—October 2020 - Emerging Infectious Diseases journal - CDC](#)

[An evidence review of face masks against COVID-19 \(nih.gov\)](#)

[American Academy of Pediatrics Updates Recommendations for Opening Schools in Fall 2021 \(aap.org\)](#)

Lab studies about masks:

[Respiratory virus shedding in exhaled breath and efficacy of face masks | Nature Medicine](#)

[Full article: Efficacy of face masks, neck gaiters and face shields for reducing the expulsion of simulated cough-generated aerosols \(tandfonline.com\)](#)

[Full article: Exhaled respiratory particles during singing and talking \(tandfonline.com\)](#)

Community studies showing how masks work:

[The Science of Masking to Control COVID-19 \(cdc.gov\)](#)

[Effectiveness of Mask Wearing to Control Community Spread of SARS-CoV-2 | Infectious Diseases | JAMA | JAMA Network](#)

[Community Use Of Face Masks And COVID-19: Evidence From A Natural Experiment Of State Mandates In The US | Health Affairs](#)

[Mask-wearing and control of SARS-CoV-2 transmission in the USA: a cross-sectional study - ScienceDirect \(uams.edu\)](#)