COVID-19 Vaccination for Young People

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Safety Concerns

Is the vaccine safe for children? Will the vaccine make my child sick?

COVID-19 vaccines are safe and effective as documented by the Centers for Disease Control and Prevention (CDC). Currently, the only COVID-19 vaccine authorized for individuals aged 5 years and older is the Pfizer-BioNTech vaccine. A small number of people may experience allergic reactions to the vaccine. Children should not get vaccinated if they had a serious or an immediate allergic reaction to any ingredient in the vaccine or after getting the first dose of the vaccine, according to the CDC. Parents can also find answers to frequently asked questions about the COVID-19 vaccines from the American Academy of Pediatrics.

What approval does the vaccine hold from the FDA?

On December 11, 2020, the U.S. Food and Drug Administration (FDA) authorized the Pfizer-BioNTech COVID-19 vaccine for emergency use authorization (EUA) to prevent COVID-19 for individuals 16 years of age and older. On May 10, 2021, FDA expanded the EUA for the Pfizer-BioNTech COVID-19 vaccine to include adolescents aged 12 to 15 years. On October 29, 2021, the FDA again expanded the EUA for the Pfizer-BioNTech COVID-19 vaccine to include children 5 through 11 years of age. FDA reviews clinical testing, safety, and effectiveness data before granting EUA; the same safety protocols the FDA usually use. The EUA process does not affect safety protocols and allows the FDA to speed up manufacturing and administrative processes to make medical products, such as vaccines, available faster during public health emergencies, such as the COVID-19 pandemic.

Will the vaccine make children sick with COVID-19?
No. None of the COVID-19 vaccines authorized for use in the United States contain the live virus that causes COVID-19. This means the vaccine cannot make anyone sick with COVID-19, according to the CDC.

**Will the vaccine make children sick with MIS-C?**

Multisystem inflammatory syndrome in children (MIS-C) is a rare condition without a known cause. However, many children with MIS-C had the virus that causes COVID-19 or had been around someone with COVID-19, according to the CDC. Because the Pfizer-BioNTech COVID-19 vaccine does not contain the live virus that causes COVID-19, it cannot give anyone MIS-C. CDC continues to study MIS-C to learn more about the condition and how to prevent it.

**Will the vaccine make children sick with myocarditis?**

CDC is monitoring rare cases of mild inflammation of the heart – called myocarditis and pericarditis – to determine if they are related to COVID-19 vaccination. Based on the latest evidence, the condition appears to be a rare side effect of the vaccine. Experts, including the American Academy of Pediatrics and CDC, continue to recommend COVID-19 vaccination for everyone 5 years of age and older because the known and potential benefits of COVID-19 vaccination outweigh the known and potential risks, including the possible risk of myocarditis and pericarditis.

Myocarditis is a rare condition in children and adolescents that is often induced by viruses, including SARS-CoV-2, and more regularly affects males. According to the CDC, the relatively few cases of myocarditis and pericarditis following COVID-19 vaccination reported to date occurred predominately in male adolescents and young adults aged 16 years and older. Most patients felt better quickly after receiving care and resting. While rare, CDC advises everyone to look out for the following symptoms of myocarditis and pericarditis: chest pain, shortness of breath, or feelings of having a fast-beating, fluttering, or pounding heart. Individuals who experience these symptoms within a week after COVID-19 vaccination should seek medical care and report their side effects to their health care provider(s) for entry into the Vaccine Adverse Events Reporting System (VAERS).

**Are there any side effects associated with the vaccine?**

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1 Larson et al., 2021: https://doi.org/10.1161/CIRCULATIONAHA.121.055913
2 Marshall et al., 2021: https://doi.org/10.1542/peds.2021-052478
3 Mouch et al., 2021: https://dx.doi.org/10.1016/j.vaccine.2021.05.087
4 Vasudeva et al., 2021: https://doi.org/10.1016/j.amjcard.2021.03.019
5 Canter & Simpson, 2014: https://doi.org/10.1161/CIRCULATIONAHA.113.001372
6 Foerster & Canter, 2011: https://doi.org/10.1016/j.ppedcard.2011.02.010
7 Levine, Klugman, & Teach, 2010: https://doi.org/10.1097/MOP.0b013e32833329.d2
8 Daniels et al., 2021: https://doi.org/10.1001/jamacardio.2021.2065
9 Vukomanovic et al., 2021: https://doi.org/10.1097/INF.0000000000003094
10 Fairweather, Cooper, Jr., & Blauwet, 2013: https://dx.doi.org/10.1016/j.cpcardiol.2012.07.003
There may be side effects of the vaccine, which may be more intense after the second shot in a two-shot series. These side effects are normal signs that the body is building protection against the virus. According to the CDC, common side effects include pain, redness, or swelling at the injection site; tiredness; headache; muscle pain; chills; fever; and nausea. These symptoms are often similar to flu-like symptoms and resolve within a few days with supportive care such as fluids, pain reliever, and rest.

Why should children get the vaccine if they’ve already had COVID-19?

Getting COVID-19 may offer some protection from getting it again, known as “natural immunity.” Reinfection with the coronavirus is uncommon in the months after initial infection but may increase with time, according to the CDC, especially for individuals with mild or asymptomatic disease (no symptoms), who are the majority of children with COVID-19.\textsuperscript{11,12} COVID-19 vaccination is a safer way to build immunity without having to experience sickness and the chance of severe illness.

Are there any known delayed side effects that will occur months or even years after receiving the vaccine?

Research into long-term side effects from the vaccine is ongoing. CDC, FDA, and public health experts across the country continuously monitor COVID-19 vaccines for safety and will identify any long-term side effects, if they emerge. According to the CDC, serious side effects that could cause a long-term health problem are extremely unlikely following any vaccination, including the COVID-19 vaccine.

What do I do if my child has allergies?

If your child is allergic to any of the ingredients in the vaccine, discuss vaccination with your child’s health care provider. Children should not get vaccinated if they have had a serious allergic reaction or an immediate allergic reaction to any ingredient in the vaccine or after getting the first dose, according to the CDC. You can find the full list of ingredients in the FDA fact sheet for the Pfizer-BioNTech COVID-19 vaccine.

What do I do if my child has an underlying health condition?

Discuss with a health care provider your child’s potential for getting sick from COVID-19 and considerations for vaccination. Children with certain medical conditions may be at increased risk for severe illness, according to the CDC, and may benefit from the protection offered by the vaccine.

Should teens with autoimmune conditions get the vaccine?

\textsuperscript{11} Castagnoli et al., 2020: https://doi.org/10.1001/jamapediatrics.2020.1467
\textsuperscript{12} Ludvigsson, 2020: https://doi.org/10.1111/apa.15270
Children with autoimmune conditions may receive the COVID-19 vaccine. According to the CDC, no data are currently available on the safety of COVID-19 vaccines for people with autoimmune conditions.

**Will the vaccine have an impact on children’s development?**

There is currently no evidence that the COVID-19 vaccine will cause adverse impacts for children’s physical or neurological development. The FDA, CDC, and other public health scientists continue to study the side effects of the COVID-19 vaccines and will report any findings on future side effects as they become available.

**Does the vaccine affect fertility in women?**

There is currently no evidence that any vaccines, including COVID-19 vaccines, affect fertility, according to the CDC. FDA, CDC, and other public health scientists are studying COVID-19 vaccines and will report any findings on future side effects as they become available.

**Does the vaccine cause heavier periods in teens? How does the vaccine impact menstrual cycles for teens?**

This is not yet known. There have been some reported cases of menstrual irregularities following COVID-19 vaccination, in the United Kingdom. Teens and others should report this side effect to their health care providers or the Vaccine Adverse Events Reporting System (VAERS). There is some evidence that people who menstruate and were confirmed to have COVID-19 experienced menstrual cycle changes, such as decreased volume and prolonged cycle, but nothing has been reported related to the COVID-19 vaccines and the clinical trial data does not include any information on menstrual changes. Researchers are currently studying this issue to learn more. Of note, no participant in the clinical trials for the COVID-19 vaccines reported changes to their menstrual cycle after receiving the vaccine.

**Where do I go if I have questions about the vaccine?**

If you have questions about the vaccine, speak with your child’s health care provider or visit the CDC website. CDC provides answers to frequently asked questions about the COVID-19 vaccines.

**Vaccine Impacts**

I’ve heard that children don’t get sick from COVID. Why should they get vaccinated?

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13 Merchant, 2021: [https://www.bmj.com/content/373/bmj.n958/rr-2](https://www.bmj.com/content/373/bmj.n958/rr-2)

14 Li et al., 2021: [https://doi.org/10.1016/j.rbmo.2020.09.020](https://doi.org/10.1016/j.rbmo.2020.09.020)
Preliminary evidence suggested that children may be less susceptible to COVID-19 than adults, but more recent data is unclear or shows similar susceptibility, especially within households. In particular, there is some evidence that COVID-19 cases in children have increased following the emergence of new variants of the virus. When children do become sick with COVID-19, there are more likely to have asymptomatic or mild disease. Research also shows children, especially older adolescents, can transmit the virus like adults. As such, additional cases and exposures among children may increase the risk of infection and more serious COVID-19 disease in adults, especially household members. Moreover, exposure to other infected children may lead to the loss of in-person learning and other activities due to quarantine or isolation. Vaccination reduces children’s chances of contracting the virus and transmitting the virus to others, and allows for exception from some mitigation efforts that can disrupt their lives, including exclusion from school and isolation or quarantine.

What does it mean for children to be “fully vaccinated”? According to the CDC, a child aged 5 years and older is fully vaccinated two weeks after the second dose of a two-dose vaccine series.

Why won’t kids benefit from herd immunity if more adults are vaccinated?

Herd immunity is when most of a population is immune to an infectious disease, thereby protecting those who are not immune to the disease. Researchers have estimated herd immunity

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15 Viner et al., 2020: https://doi.org/10.1001/jamapediatrics.2020.4573
16 Gaythorpe et al., 2021: https://doi.org/10.1038/s41598-021-92500-9
17 Laws et al., 2021: https://doi.org/10.1542/peds.2020-027268
18 Mensah et al., 2021: https://doi.org/10.1016/j.jinf.2021.02.022
19 BMJ, 2020: https://doi.org/10.1136/bmj.m4944
20 Castagnoli et al., 2020: https://doi.org/10.1001/jamapediatrics.2020.1467
21 Ludvigsson, 2020: https://doi.org/10.1111/apa.15270
22 Heald-Sargent et al., 2020: https://doi.org/10.1001/jamapediatrics.2020.3651
23 Madera et al., 2020: https://doi.org/10.1038/s41598-021-81934-w
24 Park et al., 2020: https://dx.doi.org/10.3201/eid2610.201315
25 Yonker et al., 2020: https://doi.org/10.1016/j.jpeds.2020.08.037
26 Grijalva et al., 2020: http://dx.doi.org/10.15585/mmwr.mm6944e1
27 Koh et al., 2020: https://doi.org/10.1371/journal.pone.0240205
28 Laws et al., 2020: https://doi.org/10.1542/peds.2020-027268
29 Laxminarayan et al., 2020: https://doi.org/10.1126/science.abd7672
30 Madewell et al., 2020: https://doi.org/10.1001/jamanetworkopen.2020.31756
31 Artherstone et al., 2020: http://dx.doi.org/10.15585/mmwr.mm7004e4
32 Siegel et al., 2020: http://dx.doi.org/10.15585/mmwr.mm7011a3
33 Levine-Tiefenbun et al., 2021: https://doi.org/10.1038/s41591-021-01316-7
34 Petter et al., 2021: https://doi.org/10.1101/2021.02.08.21251329
35 Lipsitch & Kahn, 2020: https://doi.org/10.1101/2021.02.25.21252415
for COVID-19 to be about 70%.\textsuperscript{36, 37} 2019 Census data shows 22.2% of Illinois residents are under age 18 years. Nearly every adult in Illinois would need to be vaccinated to reach the herd immunity threshold without vaccinating children. Vaccine is available for all adults in the state, but some will choose not to be vaccinated. It may also be harder to reach herd immunity\textsuperscript{38} because of virus variants\textsuperscript{39} spreading across the state that appear to be more transmissible\textsuperscript{40, 41, 42} and more deadly\textsuperscript{43, 44, 45} and experts are still learning how long immunity will last following vaccination.\textsuperscript{46, 47} As herd immunity becomes harder to reach, children should seek vaccination for protection from the virus.

What would vaccination mean for children’s activities?

Children who are fully vaccinated can engage in more normal, in-person activities. For example:

- Children who are fully vaccinated will be able to attend school for in-person learning with fewer episodes and periods of quarantine for close contacts at school.
- Children who are fully vaccinated can remove their masks and relax physical distancing in all outdoor settings and most indoor settings, according to the CDC.
- Children who are fully vaccinated may resume domestic and international travel without needing to test before departure or self-quarantine upon arrival, according to the CDC.
- Children who are fully vaccinated may skip routine testing for COVID-19, according to the CDC. This applies to screening testing for sports that involve sustained close contacts with others as recommended in the sports safety guidelines from the Illinois Department of Public Health (IDPH).

Do children have to keep wearing a mask after they’re vaccinated?

Children who are fully vaccinated may remove their mask and relax physical distancing in all outdoor settings and most indoor settings, according to the CDC.

Children who are fully vaccinated should continue wearing a well-fitted mask at school until mask mandates are lifted by the governor. COVID-19 mitigation measures will continue in schools to protect individuals at increased risk for severe disease or who live with a household member at increased risk for severe disease. For more information on COVID-19 mitigation efforts for the 2020-2021 school year, see the revised public health guidance for schools jointly

\textsuperscript{36} Fontanet \& Cauchemez, 2020: https://doi.org/10.1038/s41577-020-00451-5
\textsuperscript{37} Randolph \& Barreiro, 2020: https://doi.org/10.1016/j.immuni.2020.04.012
\textsuperscript{38} Aschwaden, 2021: https://doi.org/10.1038/d41586-021-00728-2
\textsuperscript{39} Sette \& Crotty, 2021: https://dx.doi.org/10.1016/j.cell.2021.01.007
\textsuperscript{40} Davies et al., 2021: https://doi.org/10.1126/science.abg3055
\textsuperscript{41} Graham et al., 2021: https://doi.org/10.1016/S2468-2667(21)00055-4
\textsuperscript{42} Washington et al., 2021: https://doi.org/10.1016/j.cell.2021.03.052
\textsuperscript{43} Challen et al., 2021: https://doi.org/10.1136/bmj.n3579
\textsuperscript{44} Davies et al., 2021: https://doi.org/10.1126/science.abg3055
\textsuperscript{45} Grint et al., 2021: https://doi.org/10.2807/1560-7917.ES.2021.26.11.2100256
\textsuperscript{46} Dagan et al., 2021: https://doi.org/10.1056/NEJMoa2101765
\textsuperscript{47} Xie et al., 2021: https://doi.org/10.1038/s41591-021-01270-4
issued by the Illinois State Board of Education (ISBE) and IDPH. The Governor’s Executive Order 2021-18 requires individuals in all public and nonpublic schools in Illinois serving pre-kindergarten through 12th grade students to follow the joint guidance issued by ISBE and IDPH and take proactive measures to ensure the safety of students, staff, and visitors, including universal indoor masking.

For information on sport guidelines, review the IDPH sports guidelines.

Is the possibility of transmission after vaccination the same for children as it is for adults?

Vaccination may reduce the amount of virus in an infected person’s body, thereby making them less likely to spread the virus if later infected. There is no current data to suggest this would be different for children. Researchers will continue to study this question as vaccine trials continue.

Will children have to show proof of vaccination like adults?

Some venues and organizations that serve children (e.g., summer camps, sports leagues, etc.) may require proof of vaccination to participate. The vaccinated individual and/or a parent or guardian will generally be required to consent to disclosing vaccination status. There is currently no state requirement for children to show proof of vaccination to gain access to any location or venue, but other entities may choose to require proof of vaccination separate from state requirements.

Is the vaccine going to be required for my children to go back to school in person?

There is currently no state requirement for students to receive the COVID-19 vaccine. Please check with your child’s school about any school-specific requirements.

Are vaccinated children required to quarantine if exposed to COVID-19?

Children who are fully vaccinated with no symptoms of COVID-19 do not need to quarantine or be restricted from school, athletics, or other extracurricular activities, according to the CDC. Fully vaccinated children should test for COVID-19 5-7 days after an exposure to someone with COVID-19 and monitor for symptoms of COVID-19 for 14 days. If symptoms begin, fully vaccinated children should isolate from others, and contact their health care provider.

Are vaccinated children required to be tested for COVID-19 to attend school or participate in other activities?

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48 Marks et al., 2021: https://doi.org/10.1016/S1473-3099(20)30985-3
49 Cevike et al., 2020: https://doi.org/10.1016/S2666-5247(20)30172-5
50 Walsh et al., 2020: https://doi.org/10.1016/j.jinf.2020.10.009
51 Levine-Tiefenbun et al., 2021: https://doi.org/10.1038/s41591-021-01316-7
52 Petter et al., 2021: https://doi.org/10.1101/2021.02.08.21251329
53 Lipsitch & Kahn, 2020: https://doi.org/10.1101/2021.02.25.21252415
Children who are fully vaccinated with no symptoms of COVID-19 and no known exposure to someone with suspected or confirmed COVID-19 do not need to be tested for COVID-19 in screening programs, according to the CDC.

**Do I need to keep my vaccinated children separate from my other kids at home?**

No. Fully vaccinated children can interact with household members who are not vaccinated, and can do so without a mask or physical distancing, according to the CDC.

**Vaccine Administration**

**Do minors need permission from a parent or guardian to get vaccinated?**

Yes, in many cases, though there are important exceptions. In Illinois, the age of consent is 18 years. Children younger than 18 years of age need consent from a parent or guardian to receive the COVID-19 vaccine. In many cases, the provider of the vaccine will also require a parent or guardian to accompany a minor child for vaccination or sign a consent form before administering vaccine to a minor, especially those unaccompanied by a parent or guardian. However, the Consent by Minors to Health Care Services Act (410 ILCS 210) contains exceptions to parental consent in specific, limited circumstances for those aged 14-17 years. For example, youth experiencing homelessness may consent to care without permission from a parent or guardian using a form such as the McKinney-Vento Homeless Education Certification of Minor Unaccompanied Youth Status for Health Care Form (ISBE 83-04T) or a similar form from the Chicago Coalition for the Homeless. If questions arise, local health departments or local jurisdictions who are administering vaccinations to minors without a parent or guardian should consult with their local state’s attorney’s office or their designated legal counsel.

**Can minors register themselves for the vaccine? If so, what documentation is needed?**

When doing so, minors, in accordance with all requirements under state law, should arrive at the vaccination appointment with their parent or guardian or with a consent form signed by their parent or guardian, photo identification (e.g., school ID, etc.), and, if covered by Medicaid or commercial insurance, an insurance card. Please note that different vaccination sites may have their own requirements that minors and families should follow. The COVID-19 vaccine is free to everyone, with or without insurance, and available to everyone in Illinois, including individuals who are undocumented. Vaccine providers may not ask any individual to provide documentation regarding their immigration status.

**Does it matter which vaccine my child gets?**

Yes. Currently, only the Pfizer-BioNTech COVID-19 vaccine is approved for use in children as young as 5 years old.

**Where can I get a vaccine for my children?**
Children can receive the vaccine at any site that offers an age-appropriate Pfizer-BioNTech vaccine dose. Available sites include local health departments, pharmacies, hospitals, clinics, and other community settings. Find the nearest vaccination site at vaccines.gov.

**Is the vaccine sequence the same for children as for adults?**

Yes. Children will receive two doses of the Pfizer-BioNTech COVID-19 vaccine spaced three weeks (21 days) apart, the same as for adults. Two doses are required for the Pfizer COVID-19 vaccine to produce a stronger immune response, as was shown in the clinical trials.

**Is the vaccine dose the same for children as for adults?**

No. The Pfizer-BioNTech vaccine dose for children ages 5 to 11 is 10 micrograms instead of 30 micrograms given to adults. Children ages 12 and older receive the same dose as adults, 30 micrograms.

**How does the COVID-19 vaccine interact with the normal schedule of childhood vaccines?**

According to the CDC, COVID-19 vaccines may be administered at the same time as other vaccines on the same day or within 14 days.

**When will children younger than 12 be able to get vaccinated?**

On October 29, 2021, the FDA authorized the emergency use of the Pfizer-BioNTech COVID-19 vaccine for children 5 through 11 years of age. Clinical trials for the next two age groups, 6 months to 2 and 2 to 5 are underway. Results from these clinical trials are expected in the forth quarter of 2021.

**Other**

**How diverse was the trial group?**

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<th>According to the CDC, clinical trials demographic information for the Pfizer-BioNTech COVID-19 vaccine.</th>
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<th>12-15 Years</th>
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54 Livingston, 2021: https://doi.org/10.1001/jama.2021.1375
55 Polack et al., 2020: https://doi.org/10.1056/NEJMoa2034577
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**How long was the vaccine studied on 16-18-year-olds?**

This age group was included in phase 2/3 of the clinical trials for the Pfizer-BioNTech vaccine, which took place between July 27, 2020, and November 14, 2020.\(^{56}\)

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\(^{56}\) Polack et al., 2020: [https://doi.org/10.1056/NEJMoia2034577](https://doi.org/10.1056/NEJMoia2034577)