COVID-19 Vaccines For Children

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July 13, 2022 Information is subject to change.





COVID cases in Alaska July 13, 2022





$\overline{\&}$ 10% Increase in Cases from Jun 29 - Jul 05



https://experience.arcgis.com/experience/af2efc8bffbf4cdc83c2d1a134354074/

COVID-19 hospitalizations in children



COVID-19-associated hospitalizations among children and adolescents 6 months-17 years, COVID-NET

March 2020 – March 2022



COVID-19 in young children



- Nationally, COVID-19 has caused over 2 million cases among children ages 1-4 years
- Deaths from COVID-19
 - Over 480 deaths in children under 5
 - Over 600 deaths in 5-17 years
- For children under 5, COVID-19 is in the top 5 leading causes of death
- Children are at risk of severe illness from COVID-19, and over half of hospitalized children ages 6 months through 4 years had no underlying medical conditions
- Prior infection may not provide broad protection against newer variants

Long COVID





How is it diagnosed?

No specific test—based on symptoms and duration.
 Symptoms may be hard to explain and manage.

How long does it last?

 Unknown and varies amongst kids, more studies are being done

What are symptoms?

- Tiredness or fatigue that interferes with daily life
- Difficulty breathing or shortness of breath
- Cough
- Difficulty thinking or concentrating ("brain fog")
- Headache
- Sleep problems
- Dizziness when standing up (lightheadedness)
- Diarrhea
- Stomach pain
- Joint or muscle pain
- Rash



Multisystem Inflammatory Syndrome in Children (MIS-C)





What is it?

- MIS-C is a rare but serious complication that can occur in children, adolescents, and young adults.
- Inflammation in body within many organs/systems

When does it appear?

• Usually 2-6 weeks after COVID/exposure to COVID

What are the symptoms?

- Fever
- Stomach pain (or vomiting/diarrhea)
- Bloodshot eyes
- Dizziness/light headedness
- Skin rash

How common is it?

In Alaska, 23 MIS-C pediatric cases (as of March 2022):

- 11 ages 0-4
- 6 ages 5-10
- All admitted
- 13 admitted to ICU
 Nationally, 8,525 MIS-C cases:
- 69 MIS-C deaths

Impacts of COVID-19 pandemic on children





As of March 7, 2022, over 200,000 US kids have lost a parent or caregiver due to COVID-19.

Over 5 million children worldwide have lost a parent or caregiver from COVID-19.

- Loss of family resources (job time, lost wages, etc.)
- Worsening of mental or emotional health
- Decreased physical and social activities
- Decreased routine health care and immunizations
- Widening of existing education gaps
- Disproportionate impacts on racial and ethnic minorities in addition to children with special healthcare needs and disabilities

Statewide & Regional Vaccination Rates July 13, 2022





Routine Immunizations

L CDC



Routine childhood series vaccinations are **falling behind** in Alaska, tracking national trends



Take steps to make sure your kids are ready to return to school with recommended vaccinations.



Childhood Series = 4313314 (4 DTaP/DTP/DT, 3 IPV, 1 MMR, 3 hib, 3 hep b, 1 Varicella, 4 PCV) Adolescent Series = 1 Tdap, 1 Meningococcal, 2 HPV Adult Series = 1 Flu, 1 Zoster, 1 PPSV

COVID-19 vaccines: key points



- COVID-19 vaccines are effective at protecting against death or hospitalization caused by COVID-19.
- COVID-19 vaccines are safe
 Millions of people in the United
 States have received COVID 19 vaccines under intense
 safety monitoring.
- Vaccines provide individual and community protection





COVID-19 Vaccine Options for Children

A summary of trial data

COVID-19 primary series for children and teens







- No deaths were reported in any trial participants
- Serious adverse events rare
- No cases of myocarditis/pericarditis in trial participants
- No cases of vaccine-associated anaphylaxis
- Local reactions occurring within 7 days were common
 - Pain at injection site most common
- Systemic reactions within 7 days were common:
 - Fatigue or headache most common in children ages 2–5 years
 - Irritability and sleepiness more common in children ages 6–23 months
- Fever more common with Moderna



Moderna Vaccines for over 6 months old



Moderna

- Unanimous approval for Emergency Use Authorization (EUA) from FDA
- Recommended for children ages 6 months and older under the EUA issued by FDA
- 2 doses
 - 4-8 weeks between dose 1 & 2







How many kids: ~6400 (~4800 got vaccine; ~1600 placebo) 2 groups: infants ages 6-23 months, children ages 2-5 years

Time period for trial: data from Dec '21 – June '22, will continue one year beyond last dose

Dose size/how many doses: 25 µg, 2 doses, 28 days apart

Immunobridging: robust protective antibody response

Vaccine efficacy:

Overall vaccine efficacy 6 months – 5 years: 37.8%

- Vaccine efficacy during Omicron:
 - Infants 6 months-23 months: 50.6%
 - Children 2-5 years: 36.8%

(Efficacy data based on 51 COVID-19 cases in vaccine group and 34 in placebo group)



Side effects/adverse events:

- No allergic reactions or heart inflammation seen in trial
- Local and systemic reactions lower than older children and adults
- Irritability: 65%
- Fatigue: 37%
- Fever: ~25% of participants, mostly grade 1-2, short duration
- Swollen lymph nodes: 9%
- 1 related Serious Adverse Event of febrile seizure within 28 days

Pfizer Vaccines for Under 5 yrs old



Pfizer-BioNTech

- Unanimous approval for Emergency Use Authorization from FDA
- Recommended for children ages 6 month 4 years
- 3 doses
 - 3-8 weeks between dose 1 & 2
 - at least 8 weeks between dose 2 & 3





How many kids: ~4,500 (~3,000 got vaccine, ~1500 got placebo)

Time period for trial: June '21 through April '22

Dose size/how many doses: 3 µg, 3 doses, 21 days between dose 1 and dose 2, at least 8 weeks between dose 2 and 3

(Initial study with 2-dose series did not mount a strong enough protective response, so the trial was extended with a 3rd dose)

Immunobridging: robust protective antibody response

Preliminary vaccine efficacy: Overall vaccine efficacy 6 months – 4 years: 80.3%

- Infants 6 months-23 months: 75.5%
- Children 2-4 years: 82.3% ٠

(Efficacy data based on 3 cases in vaccine group and 7 in placebo group. Efficacy data will be better understood after more time has passed and there are more COVID-19 cases in trial participants.)



Side effects/adverse events:

- No allergic reactions or heart inflammation seen in trial
- Local and systemic reactions lower than older children and adults
- Irritability: 51%
- Fatigue: 27-30%
- Fever: 5.8%
- Serious Adverse Events:
 - 1 fever with extremity pain requiring hospitalization
 - 1 unfortunate hot coffee spill that resulted in a thermal burn

Questions and Considerations

Deciding on a vaccine type



Which vaccine should I choose?

Both the Pfizer-BioNTech and the Moderna COVID-19 vaccines for children are safe and effective.

Parents and caregivers should get their child vaccinated with the COVID-19 vaccine that is available to them.

The benefit outweighs the risk in evaluations of the data.

Some health care providers may only carry one type of COVID-19 vaccine for children.

You need to use the same brand for all your primary series doses





What does the interval between the 1st and 2nd doses mean?

How do I know when to bring my child back for the 2nd dose?

Moderna (6 months+)



• A longer interval provided increased protection for some individuals.

- Potential for pericarditis/myocarditis may be lower with longer interval.
- Shorter interval provides quicker protection, especially for those who are at high risk or immunocompromised.

Pfizer (6 months-4 yrs)



Dosage by Age



What do I do if my child has a birthday in the middle of their vaccine series?



- Generally, people should receive the recommended age-appropriate vaccine dosage based on their age on the day of vaccination.
- If a person moves from a younger age group to an older age group during the primary series or between the primary series and receipt of the booster dose(s), they should receive the vaccine product and dosage for the older age group for all subsequent doses.

Vaccinating after infection



What if my child has had COVID?

- Children can get added protection by getting vaccinated after having had COVID-19. Hybrid immunity provides extra protection.
- For children who have been infected with COVID-19, their next dose can be delayed 3 months from onset of symptoms/positive test. They can also get vaccinated as soon as they are done with acute illness and isolation has ended.





Can my child receive other vaccines at the same time as a COVID-19 vaccine?

Yes, it is safe to get a COVID-19 vaccine and other vaccines, including the flu shot or other routine pediatric immunizations, during the same visit.



What about Myocarditis?



- No cases of myocarditis in either clinical trials
 - This was expected, as it is too rare to be picked up in clinical trials
- We expect myocarditis to be very rare after vaccination in young children
 - Smaller doses
 - Classic myocarditis is fundamentally different in young children
 - No safety concerns seen in 5-11 year olds
- Kids get myocarditis from COVID-19 infection
 - Risk of heart complications is higher after COVID-19 infection than after COVID-19 vaccination.



Heart complications after COVID-19 infection



Risk of heart complications* is higher after COVID-19 infection than after mRNA COVID-19 vaccination among males and females of all ages

TEEN BOYS (ages 12-17 years) had

the risk of heart complications after infection compared to after vaccination⁺

YOUNG MEN (ages 18-29 years) had

7–8x

the risk of heart complications after infection compared to after vaccination⁺

COVID-19 vaccination is the best way to protect against COVID-19 and rare heart complications

* Myocarditis, pericarditis, or multisystem inflammatory syndrome among U.S. patients in 40 healthcare systems, Jan 1, 2021-Jan 31, 2022 † Compared with the risk after second dose of mRNA COVID-19 vaccine





Looking ahead



- Are we done yet?
- Will the recommendation change again?
- Planning for the fall season
- Evolving information as new variants emerge



Resources

Vaccine Appointments How to prepare What to expect

Contact the COVID Helpline for Assistance





Alaska COVID Helpline

for info about vaccines, testing or treatment



Hours: 9am - 6:30pm (Mon-Fri)

What to expect at your vaccine appointment



EUA Fact Sheets

- Moderna EUA Fact Sheet for 6 mos 5 yrs
- Moderna EUA Fact Sheet for 6 yrs 11 yrs
- Pfizer EUA Fact Sheet for 6 mos 4 yrs
- Pfizer EUA Fact Sheet for 5 though 11 yrs

Vaccination sites in children:



thigh



deltoid

Tips to make shots easier for you and your children:



- Distract and comfort your child by cuddling, singing, or talking softly.
- Smile and make eye contact with your child.
 Let your child know that everything is ok.
- Comfort your child with a favorite toy or book.
 A blanket that smells familiar will help your child feel more comfortable.
- Hold your child firmly on your lap, whenever possible.

What to expect at your vaccine appointment



Comfort holds for children:



For an injection in the thigh:

- 1. Undress child so that leg to be vaccinated is exposed.
- 2. Sit your child on your thigh to the side of you.
- 3. Place one of your child's other arm on your back or under your arm.
- 4. Hold your child's other arm with just enough force to prevent them from moving.
- 5. Hold the leg to be vaccinated firmly.



For an injection in the arm:

- 1. Sit your child on your thigh to the side of you.
- 2. Expose the child's upper arm to be vaccinated.
- 3. Place your child's other arm on your back or under your arm.
- 4. Hold your child's legs firmly between your thighs.
- 5. Hold the arm to be vaccinated with just enough force to prevent the child from moving it.

What to expect after your child's vaccine appointment





Your child will be asked to wait for 15 minutes following the vaccination



There may be pain, redness, or swelling following vaccination



Ask your health care provider about options you can use at home to comfort your child if they have pain, headache, or fever.



Sign up for v-safe



V-safe



- V-safe is a smartphone-based monitoring program for COVID-19 vaccine safety in the US
- A parent/guardian must be registered with v-safe in order to add a child to their account as a dependent
- You will be prompted to complete brief surveys on how your child feels after COVID-19 vaccination
- To enroll, visit <u>https://vsafe.cdc.gov/en/</u>



Tools and resources



The Meg Foundation megfoundationforpain.org

- **Centers for Disease** 0 Control (CDC) cdc.gov
- American Academy of Pediatrics (AAP) • AAP.org
- Healthychildren.org

COVID Vaccine Checklist for Kids

COVID-19 virus is still spreading. That's why getting the vaccine is the best thing to do for your child's health. It also helps make sure that your kids can keep attending child care, school and other activities that are so important for their physical and mental health.



All eligible kids should get the COVID vaccine to get protected and also to protect the

A vaccine for babies, kids & teens

The COVID-19 vaccine is recommended for kids 6 months old and up. The COVID vaccine dose your child will get is based on their age. Two COVID-19 vaccine products are authorized for kids. Your pediatrician can explain which vaccine is right for your Here's a checklist as you prepare for your child's COVID vaccination:

Call your child's pediatrician or primary care doctor and tell them you 're planning to have your child vaccinated. Ask them questions about any

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Schedule your child's COVID-19 vaccine appointment at your pediatrician's office, vaccination clinic, pharmacy, community vaccination site, church or

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Your child can also **receive routine shots at the same appointment** for the COVID-19 shot. This includes getting an annual influenza shot. Ask if your child is caught up on all recommended immunizations.







Thank you!



Questions?

