

# COVID and FLU VACCINES

## Webinar for Families

Dec 7, 2022



# OBJECTIVES

- Review facts of new COVID vaccines for children
- Review facts of Flu vaccines
- Address common Q&A from families

# Preparing for the “TRIPLEDEMIC” This Winter

- Trio of viral threats this winter: COVID + Influenza (FLU) + Respiratory Syncytial Virus (RSV)
  - RSV is already surging with 10x more infections this year than last winter and ICU beds full in our children's hospitals
  - Experts are predicting COVID to surge later this winter
  - Flu infections are on the rise in our community
- Expected surge of all three viral infections this winter because:
  - masking policies are less strict
  - more travel
  - Rates of Flu and RSV were 3x higher this past summer in Australia which is often predictive of our rates in the winter



# Best Way to Protect Your Child this Winter



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# COVID-19 Vaccines for Children

**Pfizer-BioNTech and Moderna vaccines are now approved for children 6mo to 18 yo**

- **Safe**
  - Common side effects: fever, tiredness, headache
- **Effective**
  - Prevents serious disease or hospitalization.(> 90%)

## Facts:

Type of vaccine

mRNA

Number of shots for Primary Series

2 shots, ~3-8 weeks apart

Dose

Much smaller than dose used for teens and adults

How given

Shot in the muscle

Does NOT contain

Egg, latex, preservatives, or metals

# Vaccine Efficacy and Safety in Children

- **How well does the vaccine work in children 5-11 years old?**
  - Vaccine efficacy against symptomatic COVID-19 **was 91%**
    - Only 3 positive cases out of 1,461 children who received vaccine
    - Compared to 16 positive cases out of 714 people who received the placebo (fake) vaccine
- **How safe was the vaccine in children 5-11 years old?**
  - Only 3% of vaccine recipients had minor reactions in clinical trial
    - Redness and pain at the injection site most common
    - Other side effects were fever, nausea, headache, fatigue, chills
  - **No serious adverse events or deaths due to the vaccine**

# Bivalent Boosters Now Available for >5yo

- Updated boosters available called “bivalent” because they protect against the original virus that causes COVID-19 and the Omicron variant BA.4 and BA.5
  - Virus that causes COVID-19 has changed over time and scientists will make updates to vaccine available via boosters
- Best to get the bivalent booster at least 2 months after last COVID vaccine
- 2 bivalent vaccine manufacturers, Pfizer and Moderna:
  - Pfizer Bivalent Booster available 5yo – 17yo
  - Moderna Bivalent Boosters available 6yo – 17yo
- Unfortunately bivalent boosters not yet available for children <5yo, but they can receive a 3<sup>rd</sup> dose of primary series as a booster




# FAQ About COVID mRNA Vaccines


- **Should I give my child the COVID vaccine after they have already had COVID-19 infection?**
  - Yes, getting COVID vaccine after infection provides added protection again COVID
- **Can mRNA vaccines change the DNA of a person?**
  - No. mRNA cannot reach the part of your cells that contain DNA (the nucleus)
- **How long will mRNA vaccine immunity last?**
  - After vaccination people are protected for at least 6 months and likely much longer.
- **Can I get COVID from an mRNA vaccine?**
  - No, the vaccine does not contain any live virus and does not cause the COVID virus in the body
- **Can mRNA vaccines cause fertility problems?**
  - There is no evidence of this.
- **Will mRNA vaccine cause Myocarditis?**
  - Risk is unknown; but no cases of myocarditis found in clinical trial 5-11yo;
  - Risk from vaccines is very very low and most common in teenage boy 12-29yo and almost all cases resolved with motrin/ibuprofen
  - Risk of myocarditis from COVID infection is likely to be 100x higher





# Estimated Benefits for Every Million COVID Vaccines

## Females 5-11 years


 **57,301** COVID-19 cases prevented


 **191** hospitalizations prevented


 **130** MIS-C cases prevented


 **60** ICU admissions prevented

## Males 5-11 years

 **56,954** COVID-19 cases prevented

 **226** hospitalizations prevented

 **130** MIS-C cases prevented

 **72** ICU admissions prevented

**Assumptions:** Benefits accrue over **180 days (6 months)**; VE against symptomatic COVID-19: 90%; VE against hospitalization: 95%

**Data Sources:** COVID Data Tracker. <https://covid.cdc.gov/covid-data-tracker/#vaccination-demographic>. COVID Data Tracker [https://covid.cdc.gov/covid-data-tracker/#trends\\_dailycases](https://covid.cdc.gov/covid-data-tracker/#trends_dailycases). COVID-Net [https://gis.cdc.gov/grasp/COVIDNet/COVID19\\_3.html](https://gis.cdc.gov/grasp/COVIDNet/COVID19_3.html). All data are from the week ending on **9/11/2021**.

# Flu Vaccines for Children

- The influenza virus that cause "the Flu" changes each year and thus getting the latest flu vaccine each year is one of the more important steps you can take to protect your child from serious illness
  - Flu causes children to become quite sick for at least a week with high fevers and can be especially dangerous for children with high-risk conditions like asthma
  - Flu causes thousands of deaths in US each year, with about 30 to 200 children and teens who die each year flu, almost all were not vaccinated]
- This winter, experts expect flu and COVID to surge at similar time and some children will catch both at the same time

## Facts:

### 2 Type of flu vaccine

Inactivated vaccines (shot)

Live virus (nasal spray)

### Number of shots for Primary Series

1 vaccine every fall/winter

If 6mo to 8yo and first time receiving the flu shot, then need 2 doses a month apart

### Viral Strains Targeted

Each year new vaccine is made, this year 4 strains targeted (2 A and 2 B strains of influenza)

# FAQ About Flu Vaccines

## ○ Will the flu vaccine interfere with the COVID vaccine?

- No, no evidence of interactions or overwhelming the immune system, and no enhanced side effects, thus you can get flu vaccine at same time as COVID vaccines

## ○ Do I need to give my child both COVID and the flu vaccine?

- Yes, COVID vaccines will not provide any protections against the flu as it is a different virus

## ○ How serious is the flu, isn't it just a really bad cold?

- Simply, one feels a lot worse with the flu than common cold. Symptoms can vary but generally include fevers, chills, muscle aches, headaches. Can be very dangerous for those with other high risk conditions, cause seizures in children, or pneumonia.

## ○ Doesn't the flu shot actually cause the flu?

- No. This is a common misconception. There is no live flu virus in the vaccine in shots and while there is live virus in nasal spray, that is not how they work.

## ○ Last year, my child got sick from the shot, why?

- Some may have some mild low grade fevers, aches, and most commonly a sore arm after receiving the vaccine. But for those that get truly go sick, it wasn't from the shot. There are other viruses and bacteria that one likely caught around the same time that make you sick.

## ○ Is there anyone who shouldn't get the flu shot?

- Almost everyone can get the flu shot. Even those with egg allergies, but just alert your doctor. Only those that had documented history of anaphylactic shock after previous flu shot or had Guillain-Barre syndrome should avoid. If sick with a fever, often better to wait until you feel better.

# Summary

- COVID and flu vaccines for your children are **safe, effective, and truly the best way to protect your child**, your family, and our community during this cold season
- Severe illness and hospitalization due to COVID-19 and the flu are now **vaccine preventable** for all those 6mo and older
- **Stay informed**, with trusted resources or talk more with your doctor

**Questions from Families?**