

# WHY VACCINATE CHILDREN FOR COVID-19?



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Date: 11/16/21

## MEET THE TEAM

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# AGENDA

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- INTRODUCTIONS
- ASK YOUR QUESTIONS
- ANSWERS TO OTHER QUESTIONS
- TIPS FOR TALKING TO OTHERS ABOUT VACCINES



# HOW DID CDC DECIDE TO RECOMMEND COVID-19 VACCINES FOR CHILDREN?

# ARE CHILDREN AT RISK OF COVID-19 ?

**YES!**

**CHILDREN ARE AT LEAST AS LIKELY TO BE INFECTED WITH SARS-CoV-2 AS ADULTS**

- **OVER 1.9 MILLION REPORTED CASES IN CHILDREN;**
- **IT'S LIKELY 1/3 OF CHILDREN 5-11 HAVE ANTIBODIES (ALREADY WERE INFECTED)**
- **INFECTIONS IN CHILDREN LESS LIKELY TO BE REPORTED THAN ADULTS BECAUSE MAY HAVE MILD OR OR NO SYMPTOMS**

## **BUT DO CHILDREN GET REALLY SICK FROM COVID-19?**

### **CHILDREN 5-11 YEARS OF AGE ARE AT RISK OF SEVERE ILLNESS FROM COVID-19**

- **MORE THAN 8,300 COVID-19 RELATED HOSPITALIZATIONS AS OF MID-OCTOBER**
- **THIS NUMBER IS SIMILAR TO HOSPITALIZATIONS FOR FLU BEFORE THE PANDEMIC**
- **AS WITH FLU, COVID-19 HOSPITALIZATIONS ARE SERIOUS;**
  - **94 DEATHS HAVE BEEN REPORTED IN THIS AGE GROUP SINCE PANDEMIC BEGAN**
  - **ABOUT 1/3 OF HOSPITALIZED CHILDREN 5–11 YEARS REQUIRE ICU ADMISSION**
  - **MULTI-SYSTEM INFLAMMATORY SYNDROME-CHILDREN (MIS-C) MOST FREQUENT AMONG CHILDREN 5–11 YEARS WITH 2,316 CASES REPORTED**
  - **POST-COVID CONDITIONS HAVE ALSO BEEN REPORTED IN CHILDREN**

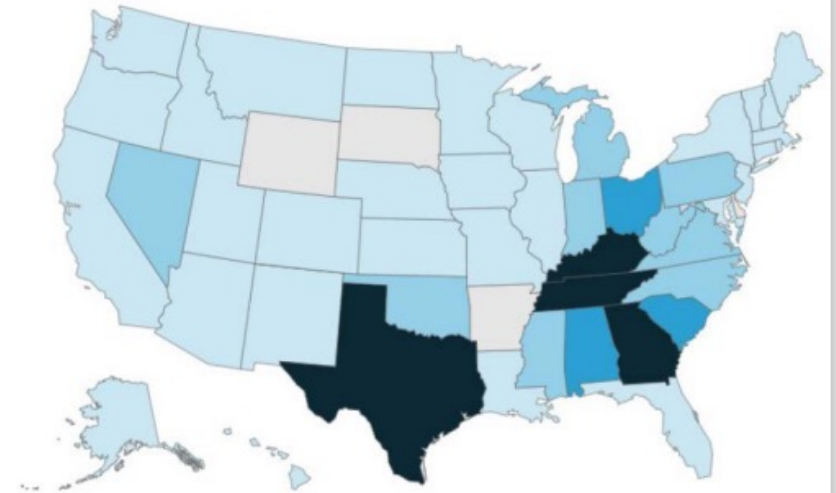


# CAN CHILDREN SPREAD COVID-19?

YES! YOUNG AND SCHOOL AGED CHILDREN MAY SPREAD COVID-19 IN HOUSEHOLD, SCHOOL, AND CHILDCARE SETTINGS

## COVID-19 Related K-12 School Closures by State, August 2, 2021 – October 22, 2021

School districts closed	Total # schools closed*	Estimated # students affected*	Estimated # teachers affected*
313	2,351	<b>1,217,777</b>	78,134



# of Schools Closed 0 1 - 29 30 - 59 60 - 89 90 - 119 120 - 149 150 - 179 180+

Data from the Unplanned School Closure Monitoring Project (DGMQ/CDC), ongoing research that uses systematic daily media searches (methods explained in <https://doi.org/10.1371/journal.pone.0248925>).

\* Number of schools closed in district-wide closures, total number of students, and total number of teachers are estimated by matching the public school district ID or school ID with the district/school data for school year 2019/20 and private school ID with school data for year 2017/18 as obtained from the National Center for Education Statistics ([https://nces.ed.gov/ipeds/data/ipeds-tables/ipeds\\_datacenter.asp](https://nces.ed.gov/ipeds/data/ipeds-tables/ipeds_datacenter.asp), accessed on Apr 20, 2021). Due to missing information in 2019/20 data, the total number of public school teachers in California is estimated using 2018/19 NCES data.

## IS THE COVID VACCINE SAFE FOR MY CHILD?

**YES!**

- **THERE WERE NO DEATHS AND NO SERIOUS ADVERSE EVENTS (SAE) LINKED TO THE VACCINE**

**SAES ARE REGULARLY DOCUMENTED DURING TESTING OF ANY VACCINE**

- **SAES IN THE INITIAL ENROLLMENT GROUP (MEDIAN FOLLOW-UP 3.3 MONTHS)**
  - **1 CHILD WHO RECEIVED THE VACCINE (N=1518) HAD A LIMB FRACTURE AND 1 CHILD IN THE PLACEBO GROUP (N=750) HAD ABDOMINAL PAIN AND PANCREATITIS**
- **SAES IN THE SAFETY EXPANSION GROUP (MEDIAN FOLLOW-UP 2.4 WEEKS)**
  - **3 SAES IN THE VACCINE GROUP (N=1591): INFECTIVE ARTHRITIS, INGESTION OF A PENNY AND EPIPHYSIAL FRACTURE; NONE IN THE PLACEBO (N=788)**




## WHAT SHORT-TERM SIDE EFFECTS SHOULD I EXPECT FOR MY CHILD?


- LOCAL REACTIONS INCLUDED: REDNESS, SWELLING, PAIN AT THE INJECTION SITE; SYSTEMIC REACTIONS INCLUDED: FEVER, NAUSEA/VOMITING, HEADACHE, FATIGUE, CHILLS, NEW OR WORSENERD MUSCLE PAIN, NEW OR WORSENERD JOINT PAIN.
- 2.7% OF CHILDREN IN THE VACCINE ARM AND 1.1% IN THE PLACEBO ARM HAD LOCAL OR SYSTEMIC REACTIONS THAT WERE SEVERE OR HIGHER; 1 CHILD IN THE VACCINE ARM HAD FEVER >40.0°C
  - REACTIONS WERE MOST COMMON AFTER DOSE 2
  - PAIN AT INJECTION SITE, FATIGUE AND HEADACHE WERE SEEN THE MOST


## WHAT ABOUT THE RISK OF HEART PROBLEMS LIKE MYOCARDITIS?


### Estimated benefits for every million Pfizer-BioNTech COVID-19 vaccinations in children 5-11 years of age using recent incidence

#### 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%;  
All data are from the week ending on 9/11/2021

# HOW WELL DOES THIS VACCINE WORK?

## PFIZER-BIONTECH COVID-19 VACCINE TESTING IN CHILDREN AGED 5–11 YEARS

- RANDOMIZED 2:1 VACCINE TO PLACEBO (MEDIAN FOLLOW-UP TIME: 3.3 MONTHS)
- VACCINE EFFICACY AGAINST SYMPTOMATIC LAB-CONFIRMED COVID-19 WAS 90.9% (95% CI: 68.3%, 98.3%)
  - 3 CASES IN THE VACCINE ARM (N=1461; SURVEILLANCE TIME: 369 PERSON-YEARS)
  - 16 CASES IN THE PLACEBO ARM (N=714; SURVEILLANCE TIME: 179-PERSON-YEARS)
- ANTIBODY RESPONSE WAS SIMILAR TO THAT SEEN IN 16–25-YEAR-OLDS

# WHAT IF MY CHILD ALREADY HAD COVID-19?

## Immune response by serostatus

- Geometric mean titers (GMT) were higher in those with prior infection
- Geometric mean fold rise (GMFR) was less (likely due to higher GMTs initially)

Baseline SARS-CoV-2 status	N (%)	Geometric Mean Titers (GMT)		Geometric Mean Fold Rises (GMFR)
		GMT pre-dose 1 (95% CI)	GMT 1 month post dose 2 (95% CI)	GMFR (95% CI)
Positive	21 (7%)	59.8 (33.5, 106.5)	3270.0 (2032.1, 5261.8)	54.7 (35.3, 84.7)
Negative	273 (93%)	10.1 (9.9, 10.3)	1211.3 (1121.1, 1308.7)	119.6 (110.8, 129.2)

## WHAT IF MY CHILD ALREADY HAD COVID-19? IS IT STILL WORTH GETTING THE VACCINE?

YES!

### DATA FROM PHASE 3 CLINICAL TRIAL

- ~9% OF CHILDREN HAD ANTIBODIES AGAINST SARS-CoV-2 AT BASELINE
- POST-VACCINATION ANTIBODIES WERE HIGHER IN THOSE WITH ANTIBODIES AT BASELINE
- RATES OF LOCAL AND SYSTEMIC REACTIONS, AND ADVERSE EVENTS, WERE LOWER IN CHILDREN WHO HAD ANTIBODIES AT BASELINE

### DATA FROM U.S. STUDIES

- APPROXIMATELY 38% OF CHILDREN AGED 5–11 YEARS HAVE ANTIBODIES FOR SARS-CoV-2
- PRIOR INFECTION CAN RESULT IN PROTECTION AGAINST INFECTION BUT NOT 100%
- CHILDREN MORE LIKELY TO HAVE ASYMPTOMATIC INFECTION COMPARED TO ADULTS

# WHAT ARE THE BENEFITS AND RISKS IF MY CHILD ALREADY HAD COVID-19?

## BENEFITS OF VACCINATION

- NO CONCERNS IDENTIFIED IN SAFETY SURVEILLANCE WITH SEROPOSITIVE ADOLESCENTS AND ADULTS
- VACCINE RECOMMENDATIONS THAT REQUIRE SEROLOGIC TESTING PLACE UNNECESSARY BARRIERS
- LIMITED DATA TO ESTIMATE IMPACT OF VACCINATION OF SEROPOSITIVE CHILDREN, BUT RISKS MINIMAL
- OVERALL, THE BALANCE OF BENEFITS AND RISKS FAVORABLE FOR VACCINATION OF ALL CHILDREN

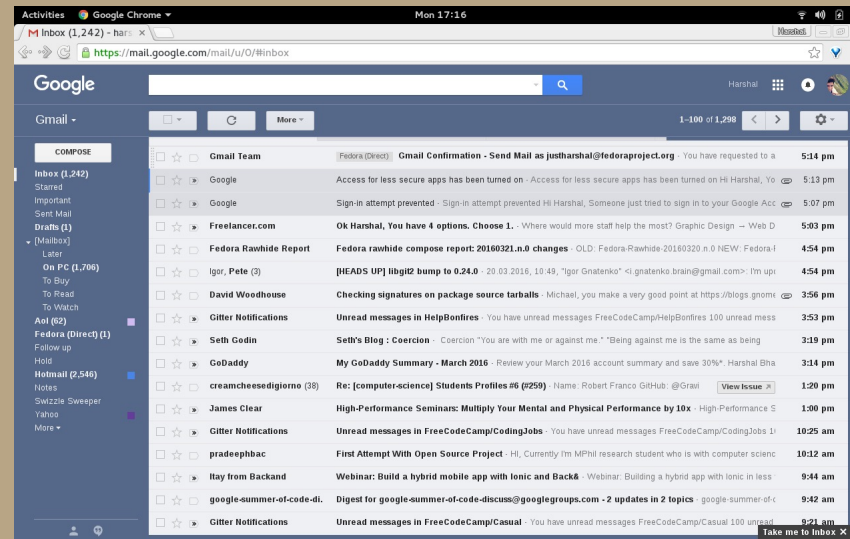
## RISKS OF COVID-19

- DELTA-WAVE SURGES OF PEDIATRIC COVID-19 HOSPITALIZATIONS OCCURRED EVEN WITH SERO-PREVALENCE ~38%, SUGGESTING THIS ALONE IS NOT SUFFICIENT TO PROVIDE BROAD PROTECTION
- LIMITED DATA ON RATES OF REINFECTION IN CHILDREN
- MIS-C TYPICALLY OCCURS AFTER ASYMPTOMATIC OR MILD INFECTION; POST-COVID CONDITIONS CAN ALSO OCCUR AFTER MILD INFECTION
- IT IS NOT ENTIRELY KNOWN YET WHAT LONG TERM OR LONG LASTING PROBLEM COVID-19 MAY CONTRIBUTE TO

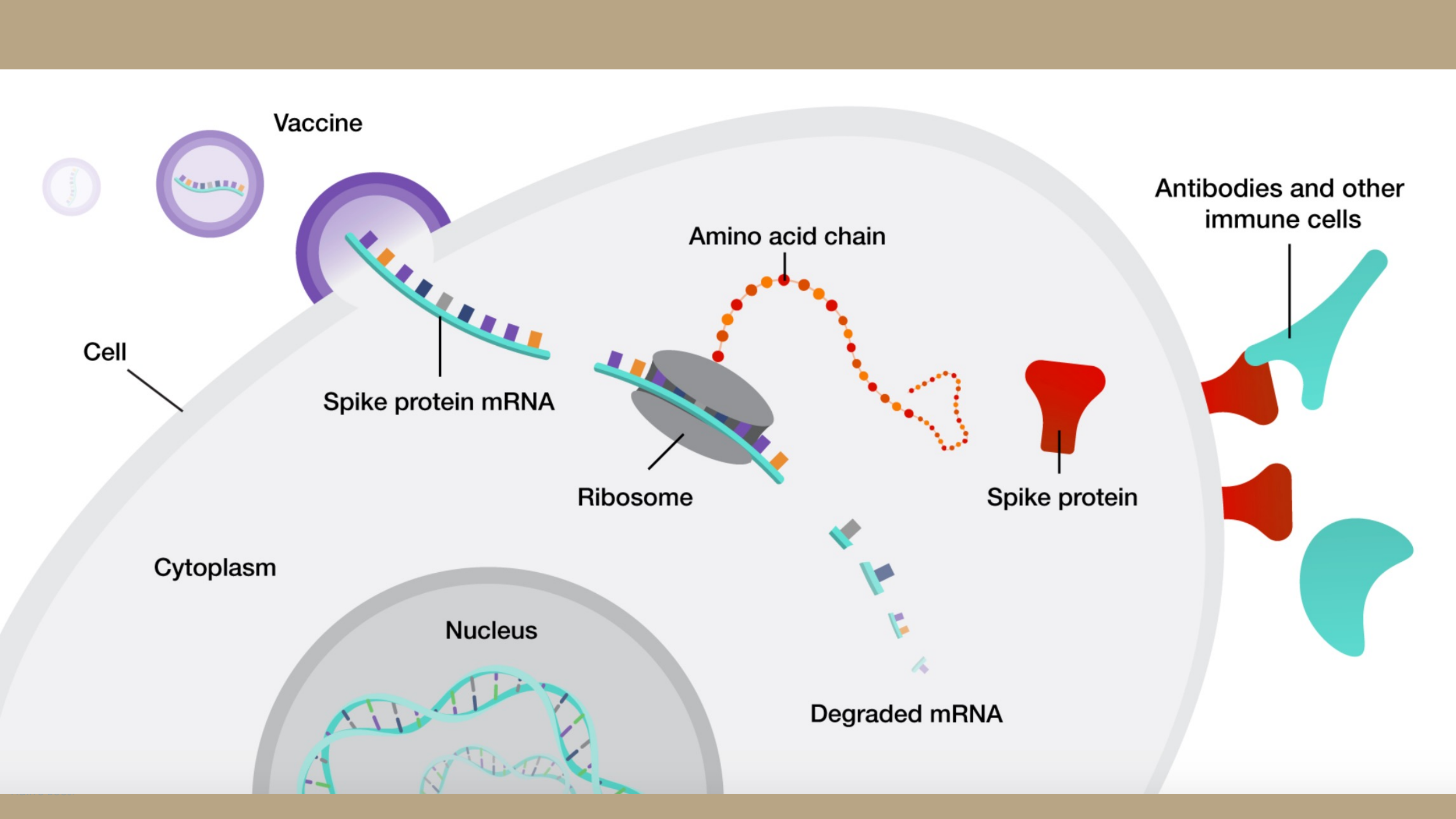


# WILL THE VACCINE CHANGE MY DNA?

RNA VACCINES ARE LIKE AN EMAILED RECIPE



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Vaccine

Cell

Spike protein mRNA

Amino acid chain

Ribosome

Spike protein

Antibodies and other immune cells

Cytoplasm

Nucleus

Degraded mRNA

## IS THE PFIZER VACCINE THE SAME FOR SCHOOL AGED KIDS (5-11) AS THE VACCINE FOR THOSE 12 YEARS AND OLDER?

- NO, THE VACCINE FOR AGES 5-11 IS A SMALLER DOSE THAN THE ONES FOR 12 YEARS OF AGE AND UP
- IT IS ABOUT 1/3 OF THE DOSE FOR AGES 5-11

## CAN THE VACCINE AFFECT FERTILITY?

- **THERE IS CURRENTLY NO EVIDENCE THAT ANY VACCINES, INCLUDING COVID-19 VACCINES, CAUSE FERTILITY PROBLEMS (PROBLEMS TRYING TO GET PREGNANT) IN WOMEN OR MEN.**
- **THERE IS CURRENTLY NO EVIDENCE THAT ANTIBODIES MADE FOLLOWING COVID-19 VACCINATION OR THAT VACCINE INGREDIENTS WOULD CAUSE ANY PROBLEMS WITH BECOMING PREGNANT NOW OR IN THE FUTURE.**

## CAN MY CHILD GET OTHER CHILDHOOD VACCINES WITH OR NEAR THE PFIZER VACCINE?

- YES!
- YOUR CHILD CAN RECEIVE CHILDHOOD VACCINES WITH THE PFIZER VACCINE
- IT IS VERY IMPORTANT TO KEEP UP TO DATE ON CHILDHOOD VACCINES

## I WANT TO GET A VACCINE FOR MY CHILD, BUT HOW DO I TALK TO MY FAMILY WHO DON'T?

- LISTEN WITH EMPATHY
- ASK OPEN-ENDED QUESTIONS
- ASK PERMISSION TO SHARE INFORMATION
- HELP THEM FIND THEIR “WHY”
- HELP MAKE THEIR VACCINATION HAPPEN





# COVID-19 VACCINES FOR CHILDREN RESOURCES

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## WHERE DO I FIND MORE INFORMATION I CAN TRUST?

- [COVID-19 VACCINATION OF MINORS](#)
- [U.S. COVID-19 VACCINE PRODUCT INFORMATION](#) – OFFICIAL CDC GUIDANCE FOR CLINICIANS ON EACH OF THE AUTHORIZED COVID-19 VACCINES.
- [KEY THINGS TO KNOW ABOUT COVID-19 VACCINES](#) – OFFICIAL CDC GUIDANCE THAT CAN BE SHARED WITH PARENTS AND PRACTICE STAFF ON THE EFFECTIVENESS AND SAFETY OF COVID-19 VACCINES, AS WELL AS HOW THEY’RE DEVELOPED AND APPROVED BY THE FDA.
- [MYOCARDITIS AND PERICARDITIS FOLLOWING MRNA COVID-19 VACCINATION](#) – THESE REPORTS ARE RARE, GIVEN THE HUNDREDS OF MILLIONS OF VACCINE DOSES ADMINISTERED, AND HAVE BEEN REPORTED AFTER MRNA COVID-19 VACCINATION, PARTICULARLY IN ADOLESCENTS AND YOUNG ADULTS.
- [COVID-19 VACCINE: WHAT PEDIATRICIANS CAN DO NOW](#)[EXTERNAL ICON](#) (AMERICAN ACADEMY OF PEDIATRICS)
- [ABOUT THE COVID-19 VACCINE: FREQUENTLY ASKED QUESTIONS](#)[EXTERNAL ICON](#) (AMERICAN ACADEMY OF PEDIATRICS)
- [THE SCIENCE BEHIND COVID-19 VACCINES: PARENT FAQ](#)[EXTERNAL ICON](#) (HEALTHYCHILDREN.ORG)



## CONTACT US

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PLEASE FILL OUT THE SURVEY IF YOU WOULD  
LIKE TO PARTICIPATE IN A FOCUS GROUP ON  
THE TOPIC:

[HTTPS://WWW.SURVEYMONKEY.COM/R/COVIDVACCINEFORCHILDRENQUESTIONS](https://www.surveymonkey.com/r/COVIDVACCINEFORCHILDRENQUESTIONS)





THANK YOU