

# Myths and Misinformation Surrounding COVID-19

## Vaccines

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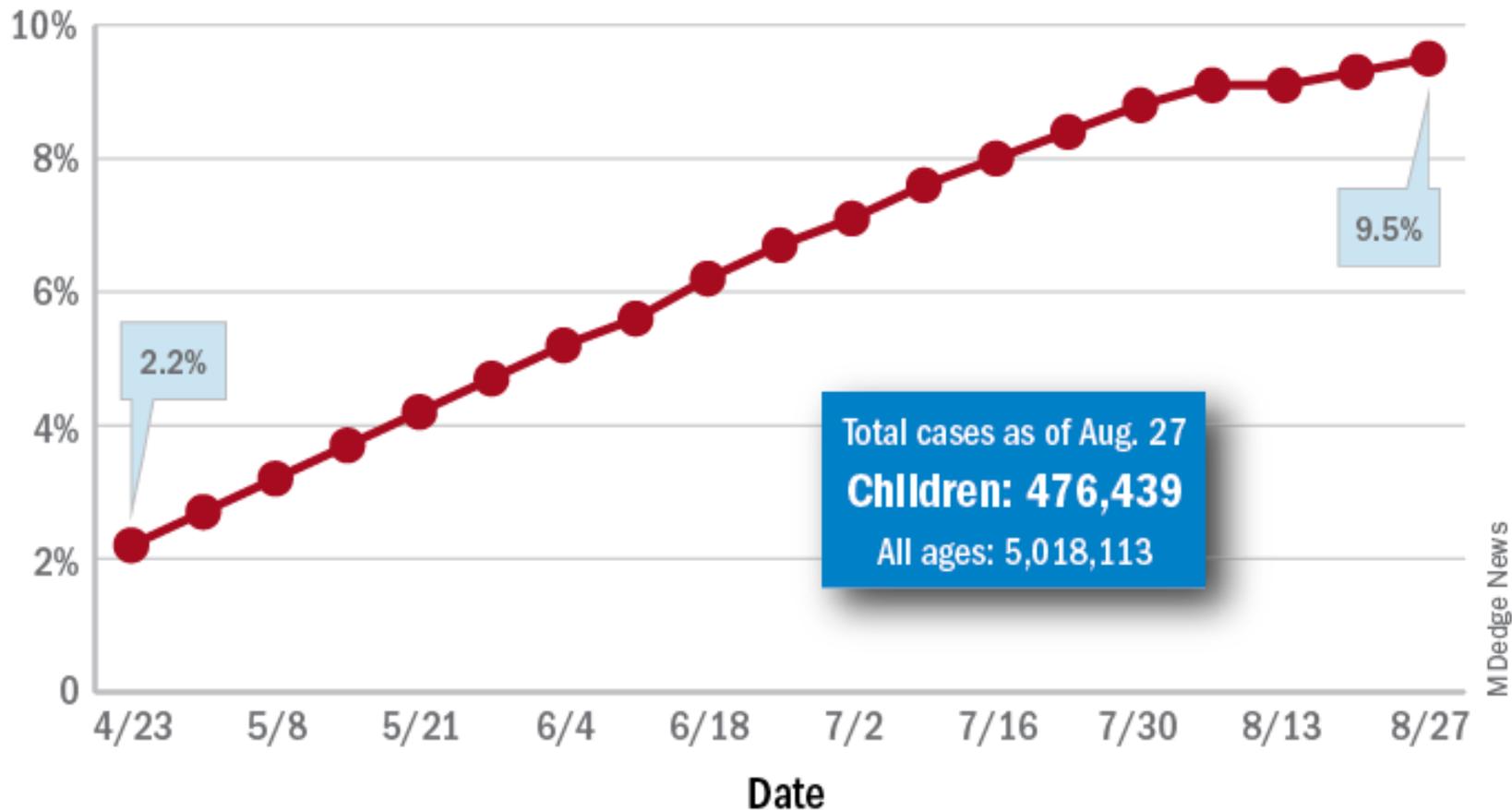
Perelman School of Medicine

The University of Pennsylvania

August 18, 2021

Covid-19 vaccines aren't  
necessary for children

## Proportion of cumulative COVID-19 cases that were children



Note: Data represent cumulative counts since state/local health departments began reporting.

Source: American Academy of Pediatrics, Children's Hospital Association

# COVID-19 in children

- As of August 15, 2021, children account for 18 percent of cases.
- About 4.2 million cases reported, likely an underestimate.
- 5,700 cases in children per 100,000 in the population; 94,000 cases reported between 7/29/21-8/5/21.
- Estimated 400 deaths but could be as many as 500.
- Deaths COVID-19 similar in numbers to deaths from influenza (75-150 per year), varicella (75-100 per year), and measles (500 per year)—all diseases for which vaccines are recommended for children.

## Hospitalization of Adolescents Aged 12–17 Years with Laboratory-Confirmed COVID-19 — COVID-NET, 14 States, March 1, 2020–April 24, 2021

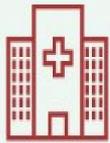
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Most COVID-19–associated hospitalizations occur in older adults, but severe disease that requires hospitalization occurs in all age groups, including adolescents aged 12–17 years (1). On

ventilation; there were no associated deaths. During March 1, 2020–April 24, 2021, weekly adolescent hospitalization rates peaked at 2.1 per 100,000 in early January 2021, declined to

# After initially decreasing in early 2021, adolescent hospitalization rates for COVID-19 increased during March–April

During January–March 2021:



**204**

adolescent hospitalizations assessed\*



**Nearly 1/3**

required ICU admission



**5%**

required mechanical ventilation

**None died**

\* Age 12-17 years identified through the COVID-NET surveillance system (<https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covid-net/purpose-methods.html>)

Adolescents age 12-17 years are now eligible to get a COVID-19 vaccine

## Vaccination:

- Protects against severe illness
- Allows kids to safely join group activities
- Is safe and free

# Health Department–Reported Cases of Multisystem Inflammatory Syndrome in Children (MIS-C) in the United States

Since mid-May 2020, CDC has been [tracking](#) case reports of [multisystem inflammatory syndrome in children \(MIS-C\)](#), a rare but serious condition associated with COVID-19. CDC is working to learn more about why some children and adolescents develop MIS-C after having COVID-19 or contact with someone with COVID-19, while others do not.

As of October 1, 2020, the number of patients meeting the [case definition](#) for MIS-C in the United States surpassed 1,000. In 2021, this number surpassed 2,000 as of February 1, 3,000 as of April 1, and 4,000 as of June 2.

Last updated with cases reported to CDC on or before June 2, 2021\*:

TOTAL MIS-C PATIENTS MEETING CASE  
DEFINITION\*

4018

TOTAL MIS-C DEATHS MEETING CASE  
DEFINITION

36

\*Additional patients are under investigation. After review of additional clinical data, patients may be excluded if there are alternative diagnoses that explained their illness.



Covid-19 vaccines decrease  
fertility



# No, COVID-19 vaccines don't impact fertility — here's the science

BY PAUL A. OFFIT, OPINION CONTRIBUTOR — 05/10/21 08:30 AM EDT  
THE VIEWS EXPRESSED BY CONTRIBUTORS ARE THEIR OWN AND NOT THE VIEW OF THE HILL

448 COMMENTS

7,508 SHARES



Just In...

Fear was born when two researchers petitioned the European Medicines Agency (EMA) to withdraw approval for COVID-19 vaccines claiming that the SARS-CoV-2 spike protein shared genetic sequences with syncytin-1, a protein on placental cells important for placental health.

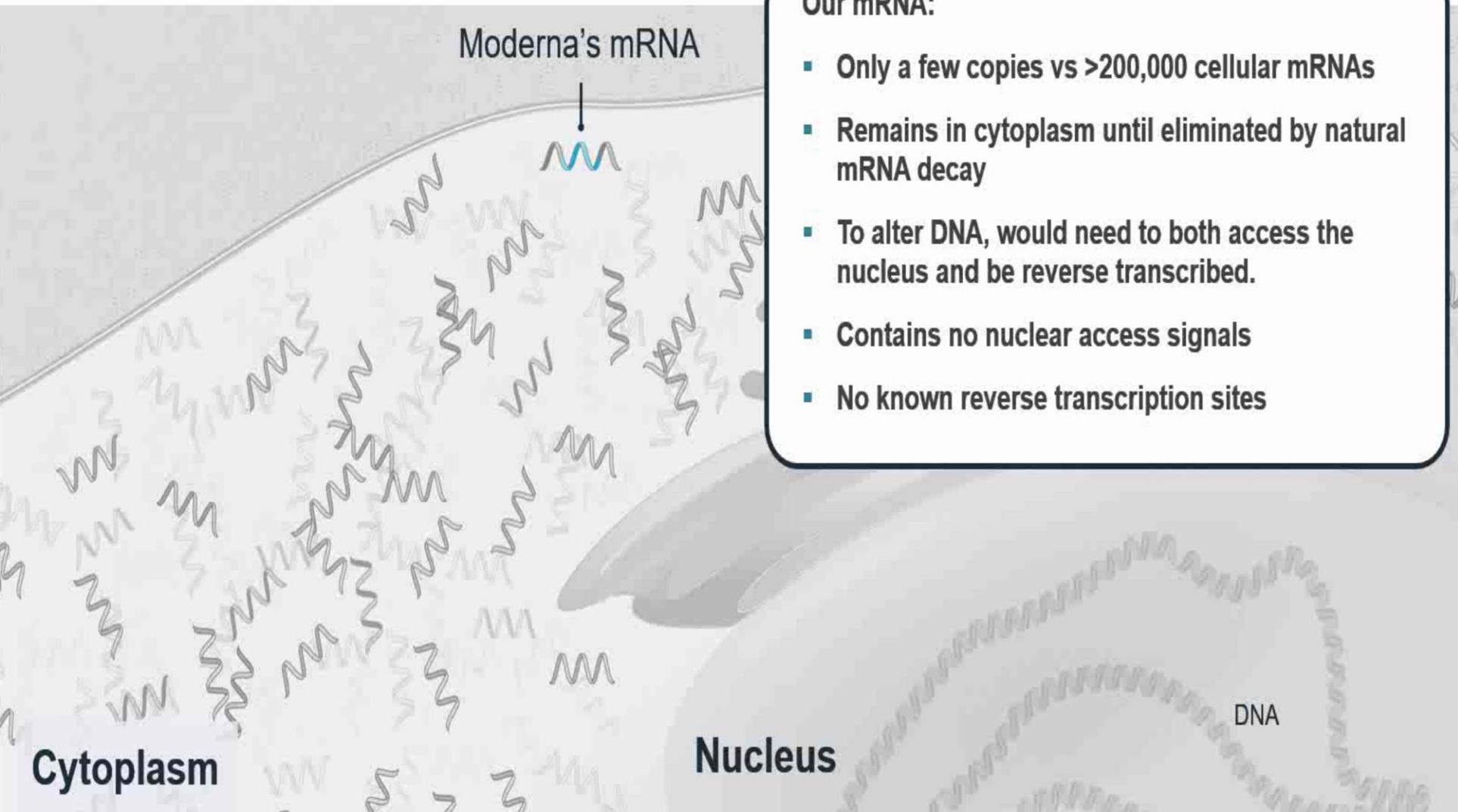
Not true. SARS-CoV-2 spike protein and syncytin-1 are immunologically distinct.

Three dozen women became pregnant during the mRNA phase 3 trials: 18 in the vaccine group and 18 in the placebo group.

Natural infection also induces antibodies against SARS-CoV-2 spike protein. More than 100 million people in the US have been infected. Nonetheless, the birth rate is essentially unchanged from previous years.

Covid-19 vaccines alter DNA

# Our mRNA Vaccine Cannot Alter DNA



## Our mRNA:

- Only a few copies vs >200,000 cellular mRNAs
- Remains in cytoplasm until eliminated by natural mRNA decay
- To alter DNA, would need to both access the nucleus and be reverse transcribed.
- Contains no nuclear access signals
- No known reverse transcription sites



Covid-19 vaccines shouldn't be  
given during pregnancy

# SARS-CoV-2 in pregnancy

- Compared with women of the same age who are not pregnant, pregnant women are:
  - 3 times more likely to require ICU care.
  - 2-3 times more likely to require intubation, mechanical ventilation, or ECMO support.
  - 1.5-fold increased risk of death.

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## Preliminary Findings of mRNA Covid-19 Vaccine Safety in Pregnant Persons

Tom T. Shimabukuro, M.D., Shin Y. Kim, M.P.H., Tanya R. Myers, Ph.D., Pedro L. Moro, M.D., Titilope Oduyebo, M.D., Lakshmi Panagiotakopoulos, M.D., Paige L. Marquez, M.S.P.H., Christine K. Olson, M.D., Ruiling Liu, Ph.D., Karen T. Chang, Ph.D., Sascha R. Ellington, Ph.D., Veronica K. Burkel, M.P.H., Ashley N. Smoots, M.P.H., Caitlin J. Green, M.P.H., Charles Licata, Ph.D., Bicheng C. Zhang, M.S., Meghna Alimchandani, M.D., Adamma Mba-Jonas, M.D., Stacey W. Martin, M.S., Julianne M. Gee, M.P.H., and Dana M. Meaney-Delman, M.D.,  
for the CDC v-safe COVID-19 Pregnancy Registry Team\*

Shimabakuro, T., et al., “Preliminary findings of mRNA Covid-19 vaccine safety in pregnant persons,” *NEJM* (2021) 384: 2273-2282.

# V-safe pregnancy registry: No self-reported pregnancy or neonatal outcomes above the published background rates

Outcomes	Background rates*	V-safe pregnancy registry overall
<b>Pregnancy outcome</b>		
Miscarriage (<20 weeks)	26%	15% <sup>†</sup>
Stillbirth (≥20 weeks)	0.6%	<1%
<b>Pregnancy complications</b>		
Gestational diabetes	7-14%	10%
Preeclampsia or gestational hypertension <sup>§</sup>	10-15%	15%
Eclampsia	0.27%	0%
Intrauterine growth restriction	3-7%	1%
<b>Neonatal</b>		
Preterm birth	10.1%	10%
Congenital anomalies <sup>‡</sup>	3%	4%
Small for gestational age <sup>^</sup>	3-7%	4%
Neonatal death	0.38%	0%

\* Sources listed on slide 33; <sup>†</sup> 93% of these were pregnancy losses <13 weeks of age; <sup>§</sup> Preeclampsia or gestational hypertension diagnosed during pregnancy and/or during delivery; <sup>‡</sup> Congenital anomalies (overall) diagnosed after delivery only; <sup>^</sup> Birth weight below the 10th percentile for gestational age and sex using INTERGROWTH-21st Century growth standards

Data as of February 18, 2021\*

Covid-19 vaccines shouldn't be  
given during lactation

# Immunogenicity of COVID-19 mRNA Vaccines in Pregnant and Lactating Women

Ai-ris Y. Collier, MD; Katherine McMahan, MS; Jingyou Yu, PhD; Lisa H. Tostanoski, PhD; Ricardo Aguayo, BS; Jessica Ansel, NP; Abishek Chandrashekar, MS; Shivani Patel, BA; Esther Apraku Bondzie, BA; Daniel Sellers, BS; Julia Barrett, BS; Owen Sanborn, BS; Huahua Wan, MS; Aiquan Chang, BA; Tochi Anioke, BS; Joseph Nkolola, PhD; Connor Bradshaw, BS; Catherine Jacob-Dolan, BS; Jared Feldman, BS; Makda Gebre, MSc; Erica N. Borducchi, PhD; Jinyan Liu, PhD; Aaron G. Schmidt, PhD; Todd Suscovich, PhD; Caitlyn Linde, PhD; Galit Alter, PhD; Michele R. Hacker, ScD; Dan H. Barouch, MD, PhD

**IMPORTANCE** Pregnant women are at increased risk of morbidity and mortality from COVID-19 but have been excluded from the phase 3 COVID-19 vaccine trials. Data on vaccine safety and immunogenicity in these populations are therefore limited.

Collier, A.Y., et al., “Immunogenicity of COVID-19 mRNA vaccines in pregnant and lactating women,” JAMA (2021) 325: 2370-2380.

# Covid-19 vaccines during lactation

- Researchers examined 30 pregnant, 16 lactating, and 57 women who were neither pregnant nor lactating who had received mRNA vaccines.
- After the second dose, fever was reported in 4 pregnant women (14%), 7 lactating women (44%), and 27 non-pregnant women (52%).
- Binding and neutralizing antibodies and CD4- and CD8-T cell responses were observed in all three groups; binding and neutralizing antibodies were observed in infant cord blood and breast milk.

Collier, A.Y., et al., "Immunogenicity of COVID-19 mRNA vaccines in pregnant and lactating women," JAMA (2021) 325: 2370-2380.

Covid-19 vaccines cause people  
to be magnetic



Anti-vaccine activist Dr. Sheri Tenpenny testifies in front of Ohio lawmakers claiming that COVID-19 vaccines make people magnetic



The Proof

# COVID-19 vaccines and magnetism

- mRNA vaccines contain lipids, potassium chloride, monobasic potassium phosphate, sodium chloride, dibasic sodium phosphate dihydrate, and sucrose. None of which are paramagnetic.
- Professor Michael Coey, from the School of Physics at Trinity College Dublin, stated, “you would need about one gram of iron metal to attract and support a permanent magnet at the injection site, something you would easily feel if it was there.”
- Joe Schwarcz, PhD, from the Office of Science and Society at McGill University, stated, “our liver, which is loaded with iron, isn’t ripped out of our body when we get an MRI scan, is it? And people who get iron injections or take iron supplements, which do contain ferrous or ferric ions that are paramagnetic, do not become magnetized.”



Joe Schwarcz, PhD, Office of Science and Society, McGill University

SARS-CoV-2 spike protein is a  
toxin



Dr. Byram W. Bridle, PHD

1:01



## RESEARCH LETTERS

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# SARS-CoV-2 Spike Protein Impairs Endothelial Function via Downregulation of ACE 2

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Meet the First Author, see p 1239

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Yuyang Lei<sup>†</sup>, Jiao Zhang<sup>†</sup>, Cara R. Schiavon , Ming He, Lili Chen, Hui Shen, Yichi Zhang, Qian Yin, Yoshitake Cho, Leonardo Andrade, Gerald S. Shadel, Mark Hepokoski, Ting Lei, Hongliang Wang, Jin Zhang, Jason X.-J. Yuan, Atul Malhotra, Uri Manor , Shengpeng Wang, Zu-Yi Yuan, and John Y.-J. Shyy 

Study of mice inoculated by an abnormal route (intratracheally) with an extraordinarily high quantity (500,000,000 plaque-forming units) of a pseudovirus called vesicular stomatitis virus expressing the SARS-CoV-2 spike protein

According to VAERS, Covid-19  
vaccines kill people



“3,362 people apparently died after getting the COVID-19 vaccine”;  
“more people, according to VAERS, have died after getting the [COVID-19] shot [...] than from all the other vaccines.”

Tucker Carlson, Fox News, May 6, 2021

# National death statistics

- 751 deaths in the US per 100,000 per year.
- Therefore, 2 people die per 100,000 per day.
- By May 6, 2021, 110 million people in the US had been vaccinated.
- Therefore, 2,200 people would have been expected to die within 24 hours of receiving the vaccine and 4,400 within 48 hours (unless the vaccines conferred immortality).
- The 3,300 deaths claimed by Carlson to have been caused by the vaccines are exactly what one would have expected assuming that the vaccines killed nobody.

# Misinformation potpourri

# PLANDEMIC

Released May 4, 2020

# “Plandemic”

- Hydroxychloroquine cures COVID-19.
- SARS-CoV-2 was manipulated to create a pandemic strain.
- Influenza vaccine increases the chance of getting COVID-19.
- Influenza vaccine contains SARS-CoV-2.

# “Plandemic”

- Microbes in the ocean cure COVID-19.
- Wearing a protective mask activates SARS-CoV-2.
- Bill Gates created SARS-CoV-2 pandemic so that he could make money selling vaccines to prevent it.
- COVID-19 death statistics have been manipulated to control the public.

Find us online:

[vaccine.chop.edu](https://vaccine.chop.edu)



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