



# COVID-19 Vaccines and MS

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# DISCLAIMER

The COVID-19 pandemic changes rapidly and public health recommendations change frequently as new information is learned.

Every effort has been made to provide accurate and up-to-date information today. Please seek reputable resources, like the CDC website or talk to your health care providers for current ongoing recommendations.

# COVID-19 Infections in the United States



	TOTAL REPORTED	ON FEB. 9	14-DAY CHANGE
<b>Cases</b>	27.2 million+	96,460	-35% →
<b>Deaths</b>	468,088	3,167	-20% →
<b>Hospitalized</b>		79,179	-26% →

<https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html>. Accessed 2/10/2021

# COVID-19 Vaccines in the United States

## *Pfizer / BioNTech & Moderna Vaccines*

- Emergency Use Authorization
- Non-Live mRNA Vaccines

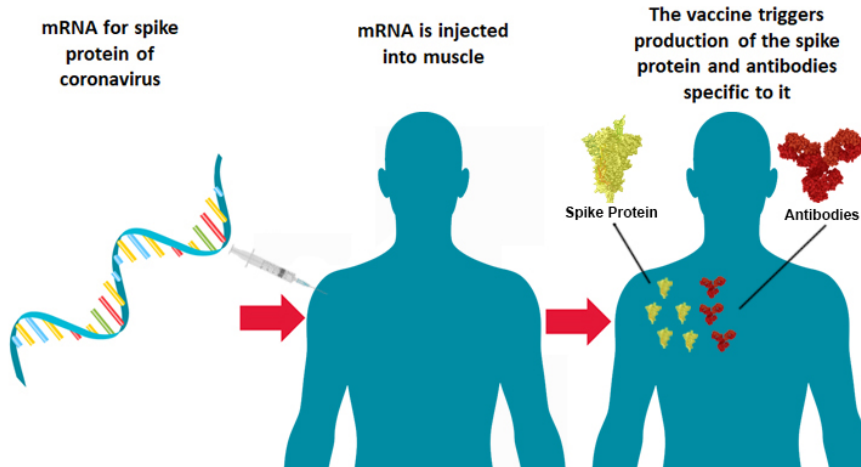


Image: NIH

# COVID-19 Vaccines Clinical Studies

## *Pfizer / BioNTech & Moderna Vaccines*

- Pfizer Participants: 43,548
- Moderna Participants: 30,420
- Included: age 16 and older who were healthy or had stable chronic conditions
- Excluded: previous COVID-19 infection, immunosuppressive medication or immunocompromising condition, pregnant and breast feeding women
- Study Outcomes: effectiveness and safety of two doses of COVID-19 vaccine to prevent confirmed cases of COVID-19 infection

Safety and efficacy of the BNT162b2 mRNA covid-19 vaccine. NEJM. 2020; 383(27):2603-15  
Efficacy and safety of the mRNA-1273 SARS-CoV-2 vaccine. NEJM. 2021; 384(5):403-16. Epub 2020 Dec 30.

# COVID-19 Vaccines Clinical Studies

## *Effectiveness*

### **Pfizer / BioNTech**

170 COVID-19 cases after two doses of vaccine or placebo

- Placebo: 162 COVID-19 Cases
- Vaccine: 8 COVID-19 Cases
- **Effectiveness: 95%**

COVID-19 confirmed cases between first and second doses

- Placebo: 82 COVID-19 Cases
- Vaccine: 39 COVID-19 Cases
- **Effectiveness: 52%**

### **Moderna**

196 COVID-19 cases after two doses of vaccine or placebo

- Placebo: 185 COVID-19 Cases
- Vaccine: 11 COVID-19 Cases
- **Effectiveness: 94%**

Severe COVID-19 Infections

- Placebo: 30 COVID-19 Cases
- Vaccine: 0 COVID-19 Cases

# COVID-19 Vaccines Clinical Studies

## *Safety*

### Common Side Effects

- Injection Site Reactions: pain, redness, swelling
- Flu-like Symptoms: tiredness, headache, low-grade fever, chills, muscle aches, joint pain

### Rare Side Effects

- Swelling of lymph nodes
- Severe allergic reactions: No cases in clinical trials

#### Rates of anaphylaxis

- Pfizer: 21 cases in more than 1.8 million doses
- Moderna: 10 cases in more than 4 million doses
- No deaths

# mRNA COVID-19 Vaccines are Safe & Effective

## Who should NOT get the COVID-19 Vaccine?

- Severe or immediate allergic reaction to an mRNA COVID-19 vaccine or any of its components
- Severe or immediate allergic reaction to polyethylene glycol (PEG) or polysorbate

**Limited Information:** pregnancy, breast feeding, autoimmune disorders, immunocompromising conditions or medications

**Precautions:** previous severe or immediate allergic reactions, bleeding disorders, taking a blood thinner



# Should a person with MS get an mRNA COVID-19 Vaccine?

- The American Academy of Neurology (AAN) supports COVID-19 vaccination for patients with neurologic conditions
- The National MS Society (NMSS) guidance recommends patients with MS be vaccinated with an mRNA COVID-19 vaccine
  - Consortium of Multiple Sclerosis Centers
  - Multiple Sclerosis Association of America
  - Multiple Sclerosis Foundation
  - Multiple Sclerosis International Federation
- The OSU Multiple Sclerosis Center supports vaccination of patients with multiple sclerosis against the COVID-19 virus

# COVID-19 Vaccine Resources

## Who is eligible to get the COVID-19 Vaccine?

### Ohio Department of Health – Phased Approach

- Phase 1 – Limited supply of vaccine
- As of February 8<sup>th</sup>:
  - Adults 65 and older
  - Healthcare workers, K-12 school employees
  - Certain disease states
  - People living in facilities
- People with MS are not included in Phase 1
- Phases 2-4: to be determined

Ohio Department of Health Coronavirus (COVID-19)

Ohio Public Health Advisory System Responsible RestartOhio COVID-19 Vaccination Program Families and Individuals

COVID-19 / COVID-19 Vaccination Program / Welcome / COVID-19 Vaccination Program

### COVID-19 Vaccination Program

February 04, 2021 | [COVID-19](#)

#### Vaccine Provider Location Search

Looking for a COVID-19 vaccine provider near you? Visit <https://vaccine.coronavirus.ohio.gov> to search for providers vaccinating in the current phase by county and ZIP code.

WELCOME

MYTHS VS. FACTS COVID-19 VACCINE

COVID-19 CHECKLISTS

NEWS RELEASES

COVID-19 CALL CENTER

GENERAL RESOURCES

Latest Information For Vaccine Providers Graphics and Resources

- Questions and Answers
- Preparing for Your COVID-19 Vaccination
- Ohio COVID-19 Vaccine Town Hall
- COVID-19 Vaccination: Phase 1A Distribution
- COVID-19 Vaccination: Phase 1B Distribution

[coronavirus.ohio.gov/wps/portal/gov/covid-19/covid-19-vaccination-program/welcome/covid-19-vaccination-program](https://coronavirus.ohio.gov/wps/portal/gov/covid-19/covid-19-vaccination-program/welcome/covid-19-vaccination-program). Accessed February 6, 2021

# Where to get the COVID-19 Vaccine?

## OSU Schottenstein Center

- MyChart message to schedule when eligible
- [Wexnermedical.osu.edu](https://wexnermedical.osu.edu) → COVID-19 Vaccine Info
- Mon – Fri Phone: 614-688-8299 (VAXX)

## Ohio Department of Health

- [Vaccine.coronavirus.ohio.gov](https://vaccine.coronavirus.ohio.gov)
- Daily Phone: 833-4-ASK-ODH (833-427-5634)

## Outside Ohio

- State Department of Health website
- CDC: [cdc.gov/coronavirus/2019-ncov/vaccines/](https://cdc.gov/coronavirus/2019-ncov/vaccines/)

# mRNA COVID-19 Vaccines

## What to expect with the mRNA COVID-19 vaccines

- Pfizer COVID-19 vaccine is 2-doses separated by 21 days
- Moderna COVID-19 vaccine is 2-doses separated by 28 days
- Should not receive another vaccine within 14 days of either COVID-19 vaccine dose
- CDC Vaccination card is proof of your vaccination
- Observation for 15-30 minutes after the shot
- Side effects are normal! Your immune system is responding.
  - Cold compress, Use your arm
  - Drink plenty of fluids, Tylenol, Advil are okay
- Full effectiveness 2-weeks after second dose



# Ongoing Questions

- ? How long does immunity from the mRNA COVID-19 vaccines last?
- ? Will booster doses be needed for the mRNA COVID-19 vaccines?
- ? Can a vaccinated person continue to spread the COVID-19 virus?

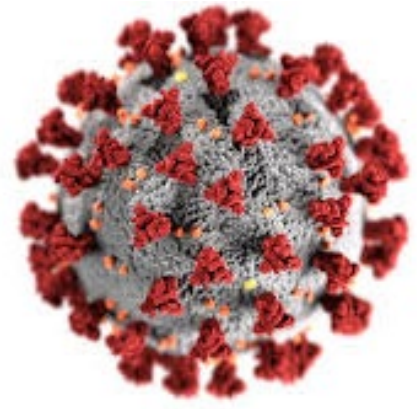


Image: [phil.cdc.gov](https://phil.cdc.gov)

# Final Points

- The mRNA COVID-19 vaccines have been shown to be safe and effective
- Patients with MS are encouraged to get the COVID-19 vaccine when available
- Side effects are generally mild or moderate and are signs that your immune system is responding
- Speak with your neurologist and other health care providers if you have additional questions or concerns
- **Continue to Protect Yourself and Others!**



Images: cdc.gov



**Thank You**

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*[www.wexnermedical.osu.edu](http://www.wexnermedical.osu.edu)*



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