



**Indiana**  
**Department**  
**of**  
**Health**

# COVID-19 VACCINE INFORMATION FOR HEALTHCARE PROVIDERS

Epidemiology Resource Center- Created 1/12/21

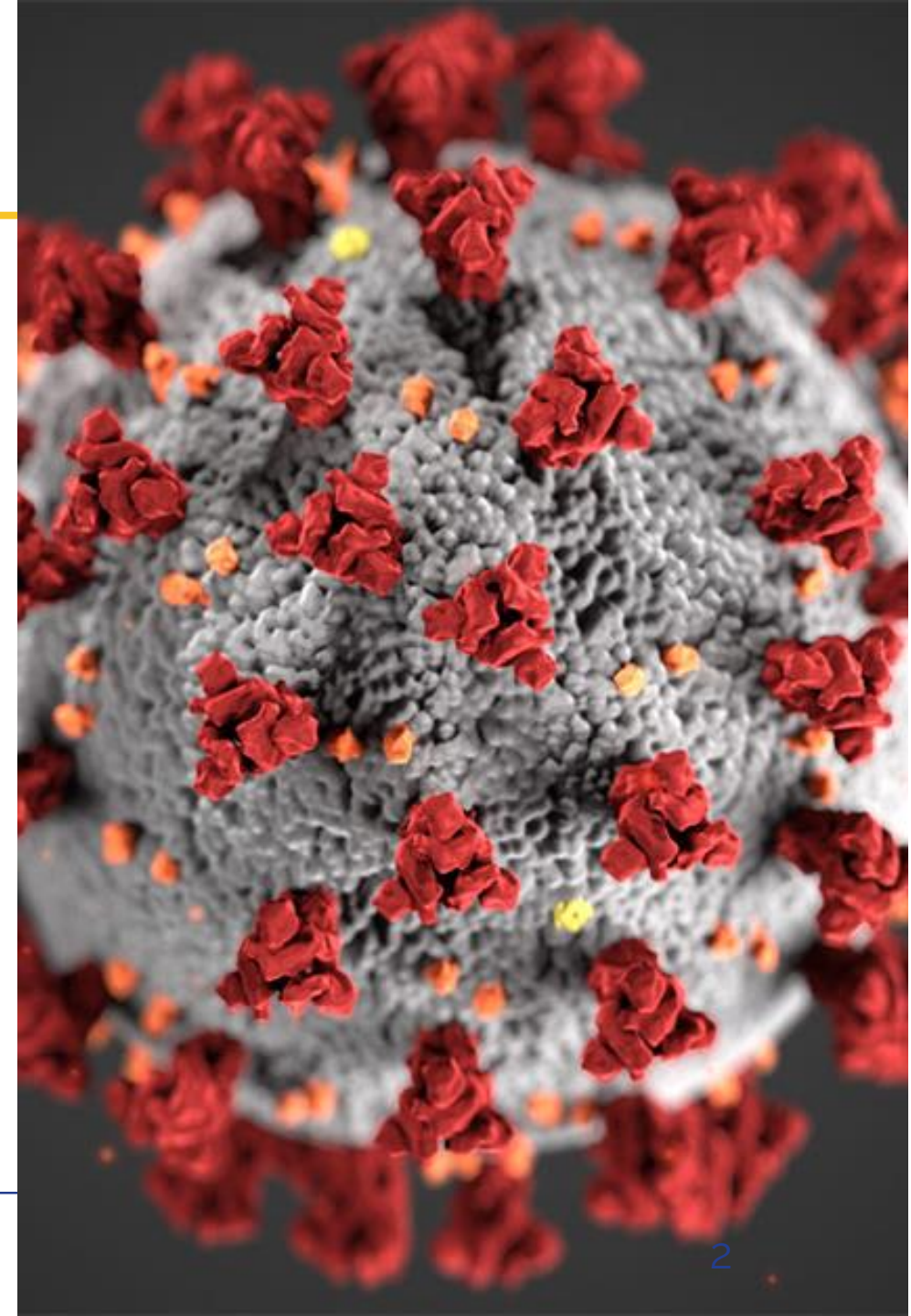
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# COVID-19

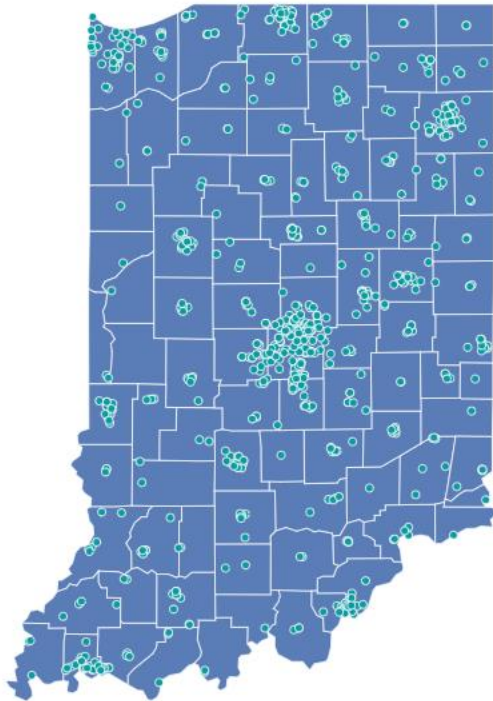
- COVID-19 is the disease caused by the coronavirus called SARS-CoV-2.
- Those infected can be asymptomatic or experience a wide range of symptoms from mild to severe, with some cases being fatal.
- Most commonly causes respiratory symptoms but has been linked to issues in other body systems such as the cardiac and nervous systems.
- Spreads person to person through respiratory droplets, but also can be picked up from touching contaminated surfaces.
- First confirmed case of COVID-19 occurred in the US in January 2020, First case in Indiana was confirmed in March 2020.



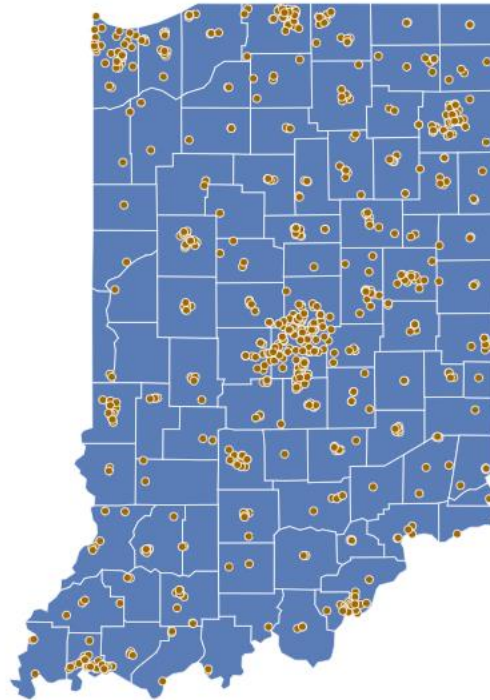
# LTC Facilities in Indiana

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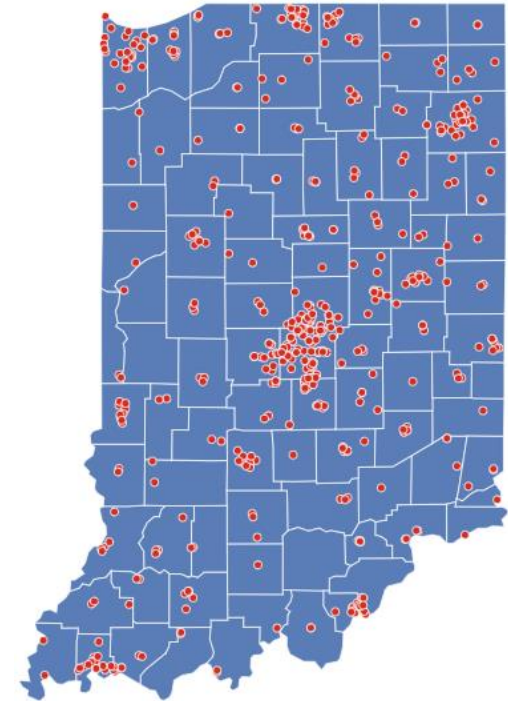
All Facilities



Facilities with Positive Cases



Facilities with Deaths




# Indiana Long-term Care Facilities & COVID-19

## Newly Verified LTC COVID-19 Counts

New Resident Positive Cases 

**1,309**

7/16/2020 ... 1/6/2021

New Resident Deaths 


**254**

7/25/2020 ... 1/11/2021

## Total Verified LTC COVID-19 Counts

Total Resident Positive Cases 

**21,651**

Total Resident Deaths 

**4,524**

# The current vaccines

## Pfizer-BioNTech

**Type of vaccine:** mRNA

**Number of shots:** 2 shots, 21 days apart

**Who Can Get It:** Anyone 16 years or older

**How given:** Shot in the muscle of the upper arm

**Efficacy after both doses:** 95%

**Does not contain:**

- Eggs
- Preservatives
- Latex

**Full ingredients list can be found here:**

<https://www.fda.gov/media/144414/download>

## Moderna

**Type of vaccine:** mRNA

**Number of shots:** 2 shots, 28 days apart

**Who Can Get It:** Anyone 18 years or older

**How given:** Shot in the muscle of the upper arm

**Efficacy after both doses:** 94.1%

**Does not contain:**

- Eggs
- Preservatives
- Latex

**Full Ingredients list can be found here:**

<https://www.fda.gov/media/144638/download>



How did these vaccines get produced so quickly?

# Vaccine safety

ALL the COVID-19 vaccines that are being used have gone through the same safety tests as other vaccines produced and meet the same standards that ensure safety and efficacy!



# Operation Warp Speed

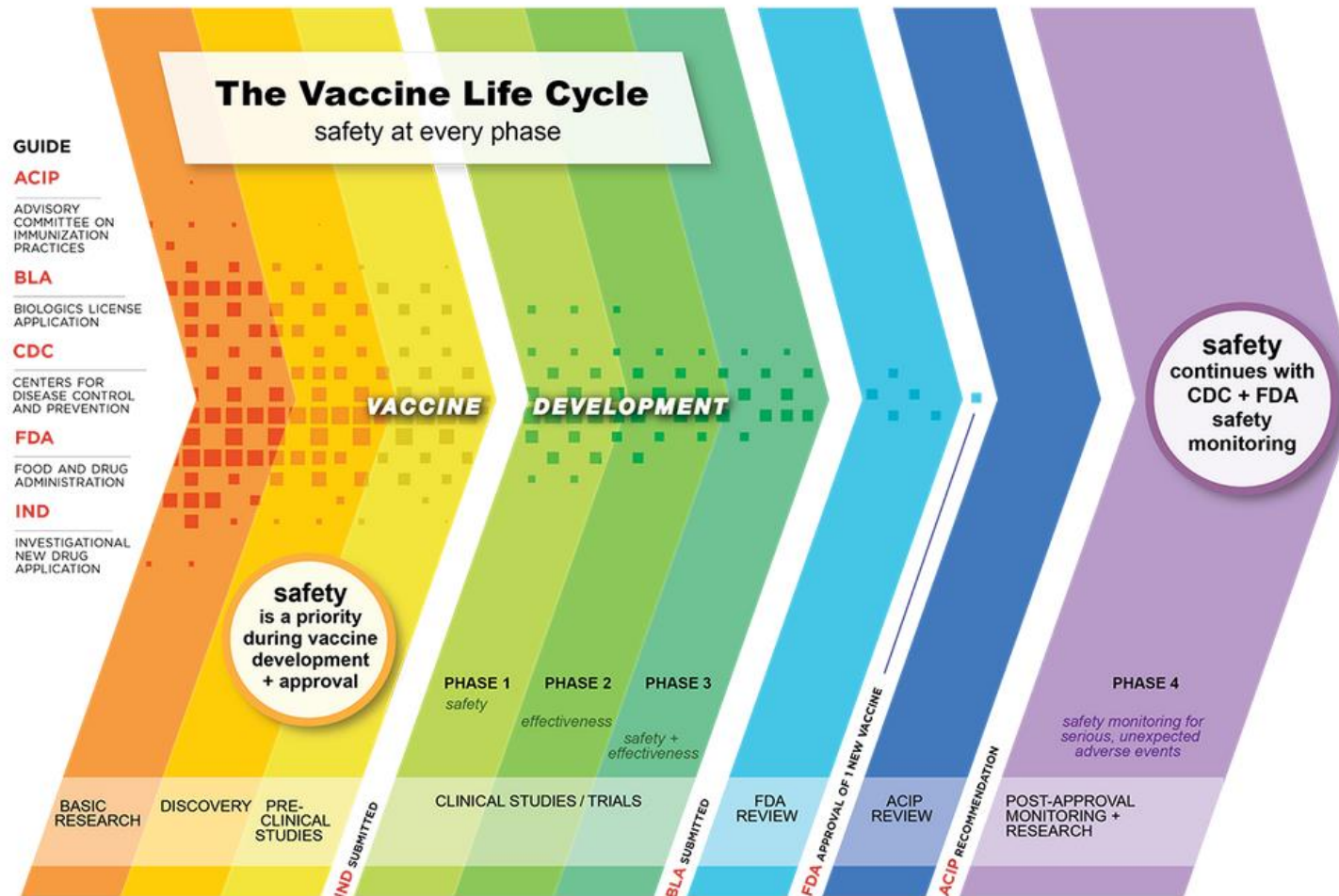
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Operation Warp Speed (OWS) from the U.S. Department of Defense accelerated the process in multiple ways:

- Worldwide interest led to increased funding and staffing
- Rapid whole-genome sequencing of SARS-CoV-2 early in the pandemic
- Utilizing pre-existing vaccine knowledge (mRNA vaccines have been studied for over 30 years)
- Large scale manufacturing of the most promising vaccines during Phase III of studies, to ensure timely distribution after approval by the FDA
- Began planning distribution and infrastructure techniques from the beginning
- Large scale Phase III studies that included 30,000 participants, allowing for copious data on diverse patients
- Studies provided continuous safety and efficacy data to the FDA
- FDA looked at the studies immediately upon filing for EUA approval, instead of the normal 10 to 12-month processing wait period.

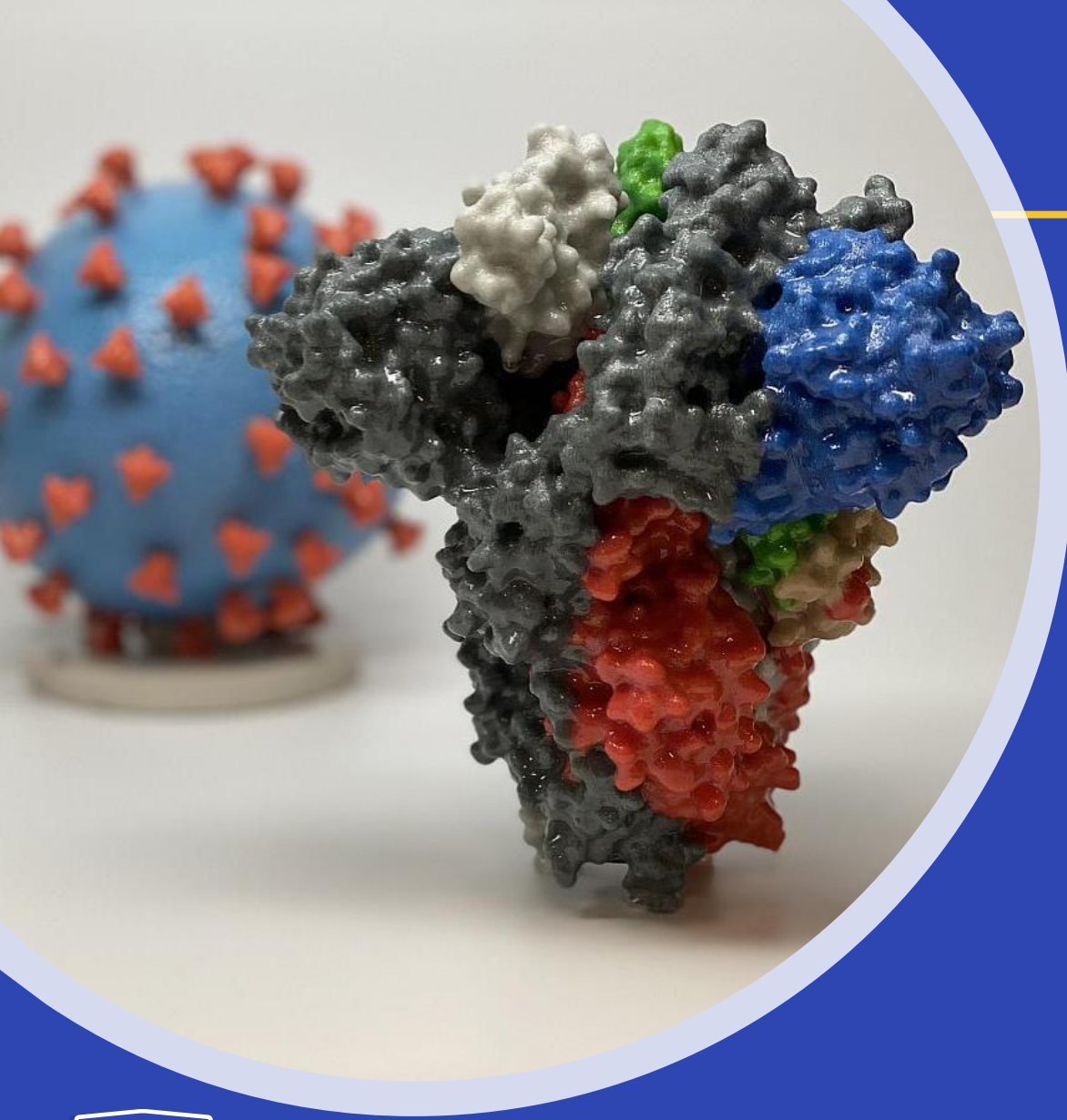


# Vaccine Life Cycle: Safety at Every Phase



**Will I develop COVID-19  
after getting the vaccine?**

# NO



- The full pathogen is not injected into your body.
- The vaccine gives your body the mRNA of a SARS-CoV-2's spike protein.
- Your body then creates that protein, causing your body to have an immune response.
- The mRNA that was injected quickly gets destroyed after the spike protein is created.
- That immune response and subsequent production of antibodies is what protects us from getting infected if the real virus enters our bodies.

# Anaphylactic reactions

**21 cases of anaphylaxis occurred during 1,893,360 (0.0011%) first doses of Pfizer administration**

- 17 of the 21 occurred in individuals that have experienced anaphylaxis before
- Majority happened within the first 15 mins of administration
- No deaths

Facilities have been instructed to have epi pens on site in case of severe reactions and all recipients are monitored for the first 15 minutes after administration of the vaccine.



	MAY PROCEED WITH VACCINATION	PRECAUTION TO VACCINATION	CONTRAINDICATION TO VACCINATION
CONDITIONS	<p><b>CONDITIONS</b></p> <ul style="list-style-type: none"> <li>Immunocompromising conditions</li> <li>Pregnancy</li> <li>Lactation</li> </ul> <p><b>ACTIONS</b></p> <ul style="list-style-type: none"> <li>Additional information provided*</li> <li>15 minute observation period</li> </ul>	<p><b>CONDITIONS</b></p> <ul style="list-style-type: none"> <li>Moderate/severe acute illness</li> </ul> <p><b>ACTIONS</b></p> <ul style="list-style-type: none"> <li>Risk assessment</li> <li>Potential deferral of vaccination</li> <li>15-minute observation period if vaccinated</li> </ul>	<p><b>CONDITIONS</b></p> <ul style="list-style-type: none"> <li>None</li> </ul> <p><b>ACTIONS</b></p> <ul style="list-style-type: none"> <li>N/A</li> </ul>
ALLERGIES	<p><b>ALLERGIES</b> History of allergies that are unrelated to components of an mRNA COVID-19 vaccine*, other vaccines, injectable therapies, or polysorbate, such as:</p> <ul style="list-style-type: none"> <li>Allergy to oral medications (including the oral equivalent of an injectable medication)</li> <li>History of food, pet, insect, venom, environmental, latex, etc., allergies</li> <li>Family history of allergies</li> </ul> <p><b>ACTIONS</b></p> <ul style="list-style-type: none"> <li>30-minute observation period: Persons with a history of anaphylaxis (due to any cause)</li> <li>15-minute observation period: All other persons</li> </ul>	<p><b>ALLERGIES</b></p> <ul style="list-style-type: none"> <li>History of any immediate allergic reaction† to vaccines or injectable therapies (except those related to component of mRNA COVID-19 vaccines† or polysorbate, as these are contraindicated)</li> </ul> <p><b>ACTIONS:</b></p> <ul style="list-style-type: none"> <li>Risk assessment</li> <li>Consider deferral of vaccination and/or referral to allergist-immunologist</li> <li>30-minute observation period if vaccinated</li> </ul>	<p><b>ALLERGIES</b> History of the following are contraindications to receiving either of the mRNA COVID-19 vaccines‡:</p> <ul style="list-style-type: none"> <li>Severe allergic reaction (e.g., anaphylaxis) after a previous dose of an mRNA COVID-19 vaccine or any of its components</li> <li>Immediate allergic reaction‡ of any severity to a previous dose of an mRNA COVID-19 vaccine or any of its components^ (including polyethylene glycol)^#</li> <li>Immediate allergic reaction of any severity to polysorbate^#</li> </ul> <p><b>ACTIONS</b></p> <ul style="list-style-type: none"> <li>Do not vaccinate#</li> <li>Consider referral to allergist-immunologist</li> </ul>



**Can getting the vaccine cause me to test positive for COVID-19?**



# NO

The full pathogen is not injected into your body. Instead, the mRNA for a spike protein from the virus is used to create an immune response.

Since the pathogen is not injected, the vaccine will **not** cause you to test positive for the virus

IMPORTANT TO NOTE– if you were infected with the virus shortly before receiving the vaccines or shortly after, the vaccine will not prevent you from developing the disease. It can take up to two weeks for the immune response to take effect. You could test positive, if you've caught the illness before immunity develops.



## Vaccine Side Effects vs. COVID-19 Side Effects



**Normal vaccine side effects are to be expected and indicate an immune response! These side effects should not last longer than 24-48 hours:**

- Mild fever
- Sore Arm
- Headache
- Fatigue

**If you develop symptoms aligned with COVID-19, you should not assume these are vaccine side effects and should be tested for COVID-19:**

- Cough
- Shortness of breath
- Loss of taste or smell
- Diarrhea
- Nasal congestion
- High fevers or mild fevers lasting longer than 48 hours



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The full protection from the vaccine may take up to two weeks after the second dose.

# You will still need to take precautions!

**Socially distance**

**Mask up**

**Avoid crowds**

**Stay home if you are sick**

**Hand hygiene**





**Will the vaccine change my DNA?**



# NO



**COVID-19 mRNA vaccines do not change or interact with your DNA in any way.**

Messenger RNA vaccines—also called mRNA vaccines—are the first COVID-19 vaccines authorized for use in the United States. mRNA vaccines teach our cells how to make a protein that triggers an immune response.

The mRNA from a COVID-19 vaccine never enters the nucleus of the cell, which is where our DNA is kept. This means the mRNA cannot affect or interact with our DNA in any way.



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**Does the vaccine contain  
a microchip to track me?**



# NO

The vaccine will not inject you with a microchip.

The only “microchip” potentially involved in the vaccination process is similar to a barcode on the syringe itself, used to scan the dose to check for expiration date and other manufacturer information. This helps keep track of doses given. No patient information is collected from this microchip and it is NOT injected into your skin.

**I've already had COVID-19.  
Should I get the vaccine?**

# YES



Due to the severe health risks associated with COVID-19 and the fact that re-infection with COVID-19 is possible, vaccine should be offered to you regardless of whether you already had COVID-19 infection.

At this time, experts do not know how long someone is protected from getting sick again after recovering from COVID-19. The immunity someone gains from having an infection, called natural immunity, varies from person to person. Some early evidence suggests natural immunity may not last very long.

**Should I be concerned about  
long-term side effects?**

No one has had the vaccine in their body longer than 9 months (as of January 2021), so while we cannot say with 100% certainty there are no long-term effects, **the history of vaccines suggests long-term effects are unlikely.**

In the past, long-term effects of vaccines were rarely noted beyond 6 weeks. In response to this fact, the FDA requires all Emergency Use Application (EUA) applicants to wait until 60 days after giving at least 50% of their study participants the last dose of the vaccine. This allows the researchers to monitor for these potential longer-term side effects and ensure safety.

Over 30,000 participants received both vaccine doses and have not had significant side effects. Thousands of people are getting vaccinated daily across the world and world health organizations are closely tracking short term and long-term effects.

# COVID-19 Has Known Long-Term Effects

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The worst-case scenario from COVID-19 is obviously **death**, however, there are numerous **short-term and long-term effects** associated with the disease:

- Fatigue
- Shortness of breath
- Joint and muscle pain
- Rash and hair loss
- Concentration and memory problems
- Blood clots
- Organ Damage: Brain, Lungs, and Heart

As of January 2021, Over **22 million** Americans have had COVID-19 and over **380,000** people have died from the disease in the US alone. Nearly **2 million** people have died worldwide.



Why should I get the vaccine?



- Healthcare personnel are at high risk of exposure to COVID-19
- Vaccinating healthcare personnel protects healthcare capacity
- Vaccinating healthcare personnel helps prevent patients from getting COVID-19
- Benefits of vaccination believed to outweigh possible risks
- Based on what we know about vaccines for other diseases and early data from clinical trials, experts believe that getting a COVID-19 vaccine may also help keep you from getting seriously ill even if you do get COVID-19.
- The vaccine is FREE.
- Vaccinating Long-term care staff and residents WILL save lives!

# The Elderly Are at Greater Risk!

LTC residents made-up

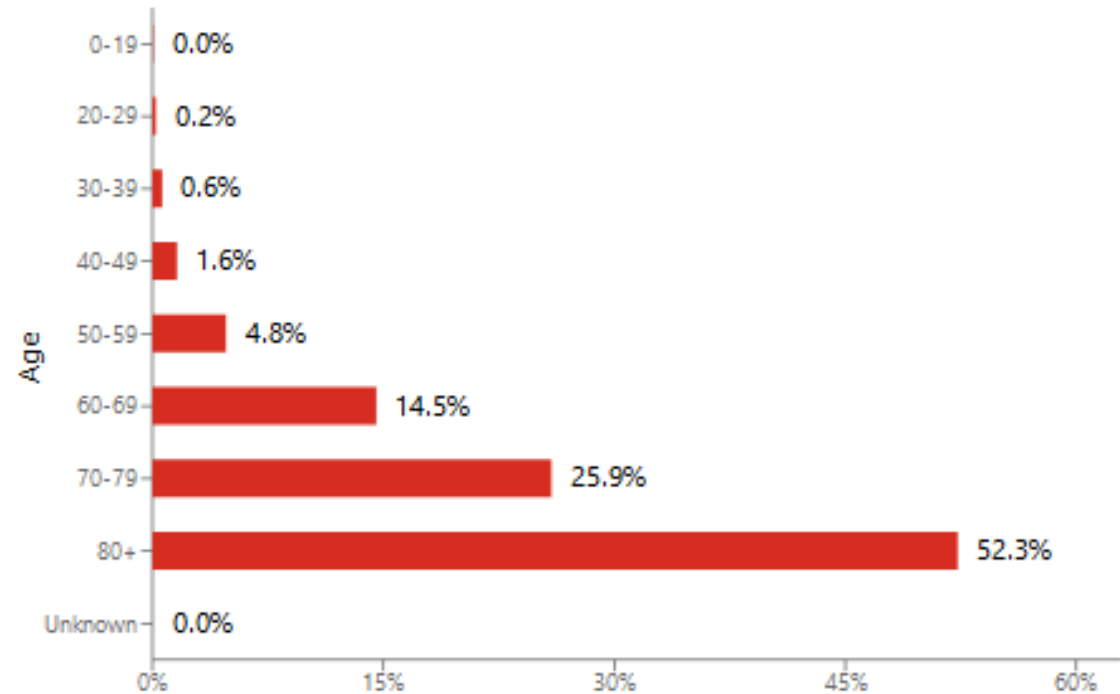
**over 48%**

of all Indiana COVID-19 deaths, as of Jan 2021.

**When you protect yourself,  
you protect your  
residents!**



Statewide Demographics for Deaths\*



\* Indiana population percentages provided by 2019 U.S. Census Bureau; Population Estimate Program.

*Data obtained from IDOH COVID-19 Dashboard  
on 1/12/2021*



COVID-19 can have serious, life-threatening complications, and there is no way to know how COVID-19 will affect you. And if you get sick, you could spread the disease to friends, family, your patients, and others around you.

# Thank you!

Epidemiology Resource Center

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***Program Manager Infection Prevention***

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# References and Resources

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1. <https://www.coronavirus.in.gov/>
2. <https://www.cdc.gov/vaccines/covid-19/info-by-product/pfizer/index.html>
3. <https://www.cdc.gov/vaccines/covid-19/info-by-product/moderna/index.html>
4. <https://media.defense.gov/2020/Aug/13/2002476369/-1/-1/0/200813-D-ZZ999-100.JPG>
5. <https://www.cdc.gov/vaccinesafety/ensuringsafety/history/index.html>
6. [https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fvaccines%2Fvaccine-benefits%2Ffacts.html](https://www.cdc.gov/coronavirus/2019-ncov/vaccines/facts.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fvaccines%2Fvaccine-benefits%2Ffacts.html)

# Reference and Resources cont'd

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1. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/hcp.html>
2. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/LTCF-residents.html>
3. <https://wvumedicine.org/news/article/wvu-medicine-officials-answer-frequently-asked-questions-aboutcovid-vaccine/>
4. <https://www.mayoclinichealthsystem.org/hometown-health/featured-topic/covid-19-vaccine-myths-debunked>
5. <https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-long-term-effects/art-20490351>