



# Why Should You Take the COVID-19 Vaccine?

Project Meducate

# NJ Covid-19 Statistics

- Total cases of COVID: 461,221
- Total Confirmed Deaths due to COVID: 16,685
- 3,619 hospitalizations due to COVID
  - Only 282 discharges (7.8%)
- 105 school outbreaks

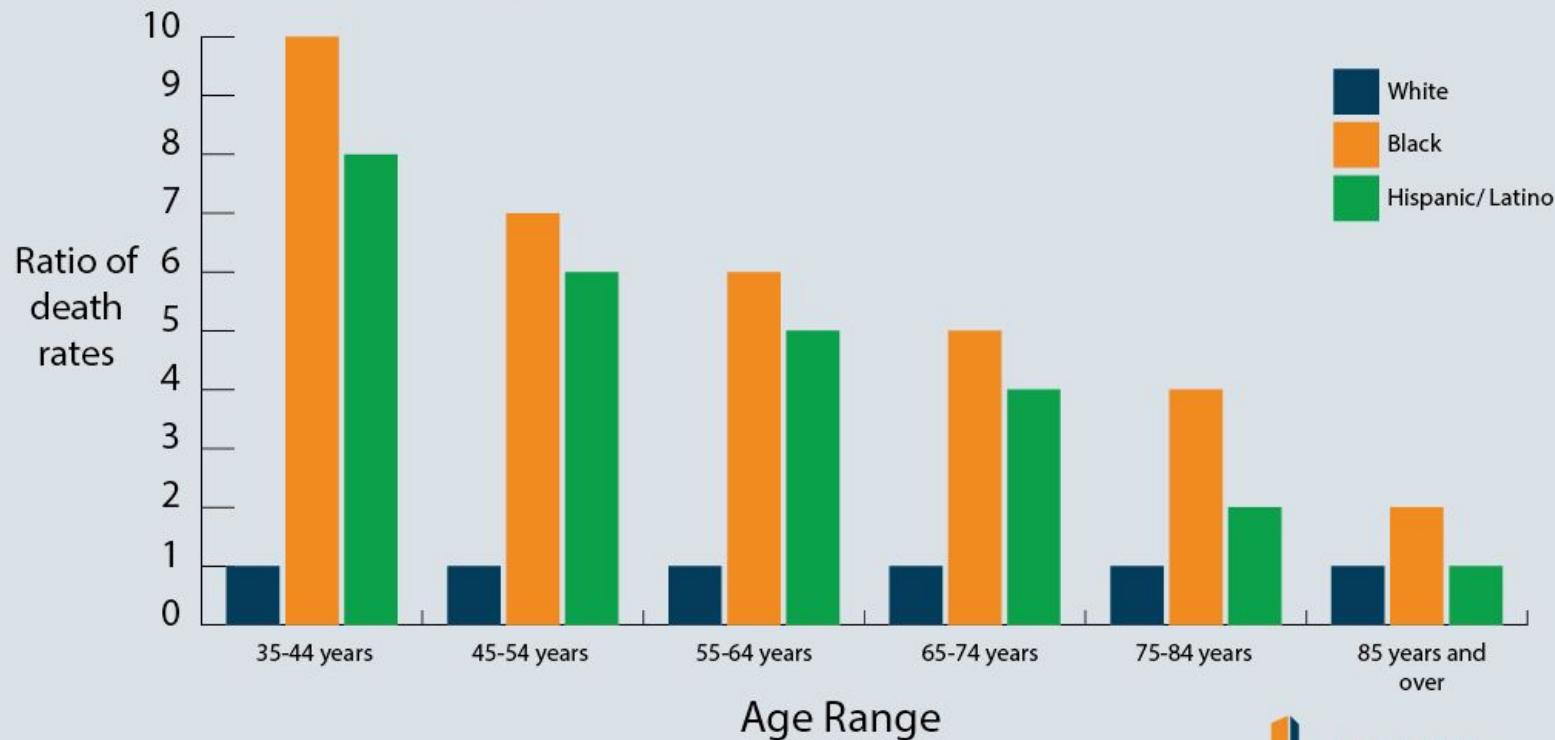




# How the Pandemic Has Affected Your Community

- Black and Latinx communities have been disproportionately affected by COVID-19
  - There have been 4.1 times more hospitalizations as compared to white communities
  - 1.7 times more cases as compared to white communities
  - 2.8 times more deaths as compared to white communities (CDC)

# Race gaps in COVID-19 death rates



Source: CDC data from 2/1/20-6/6/20 and 2018 Census Population Estimates for USA

# Long Term Impacts of COVID-19

- While many people recover from COVID-19, even those who only experienced mild effects, have symptoms after their initial recovery
  - *This includes all ages*





# Long Term Impacts of COVID-19

Symptoms experienced months after the infection includes:

- **fatigue**
- **shortness of breath**
- **Cough**
- **joint pain**
- **chest pain**
- **muscle pain**
- **headaches**
- **pounding heartbeat**
- **loss of smell and taste**
- **memory/concentration/sleep problems**
- **Rashes**

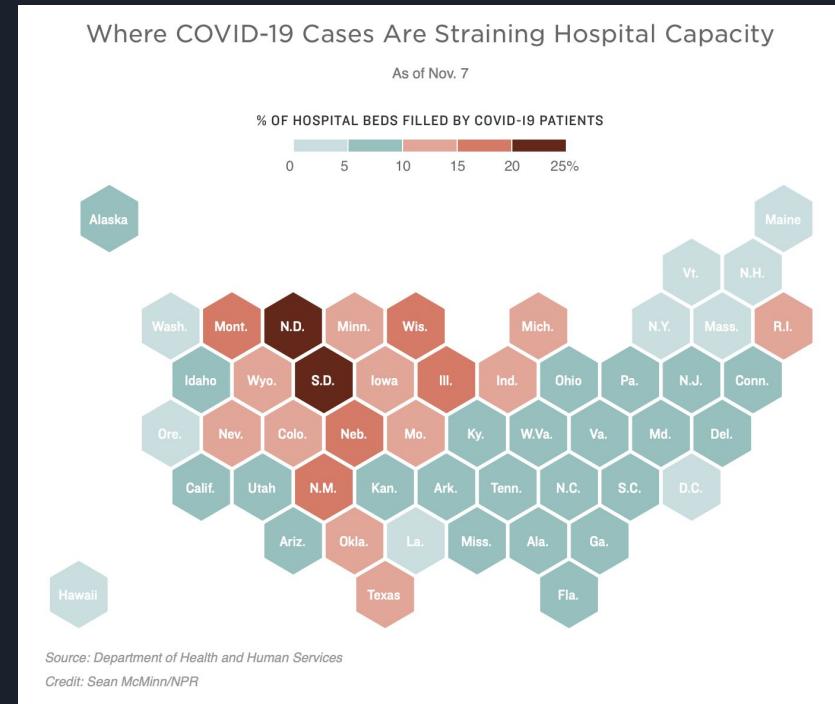


# Long Term Impacts of COVID-19

- There are also long term negative effects to organs such as the heart, lungs, and brain.
  - This **increases the risk for:**
    - heart failure
    - long term breathing problems
    - temporary paralysis
    - developing Parkinson's disease and Alzheimer's disease

# Rising Impact on Health Systems

- With a second wave of COVID-19 on the rise, the influx of new cases is putting a huge strain on healthcare workers, hospitals, and disaster response officials
- Increasing Numbers in New Jersey** - In NJ between 5-10% of hospital beds are filled only by Covid-19 patients
- These numbers are cause for alarm as they signal that hospitals are reaching their capacity in not only beds but resources



Increasing # of Covid patients = Hospitals at capacity = **Lack of proper treatment & medical care**

# COVID-19 Vaccine: A Vital Solution



- With all current vaccines having **over a 94% effectiveness rate**, the vaccines are extremely effective at preventing the contraction of COVID-19
- If 80-90% of the population are vaccinated, there is hope that a vibrant herd immunity will be created, to protect those more vulnerable

# How The Vaccine Works

- Vaccines train your immune system to recognize foreign “invaders” and attack them.
- The vaccine uses genetic material for a harmless protein on the outside of the virus
  - Does not actually contain the virus
- **Allows your body to learn to fight off COVID-19 without getting exposed.**



# Effective COVID-19 Vaccines

## Pfizer Vaccine

- Trials conducted with 43,000 participants across all populations
- 95% effectiveness in preventing Covid symptoms and infection
- Equally protective among all age, racial, and ethnic groups
- 16 and older

2 doses 3 weeks apart



## Moderna Vaccine

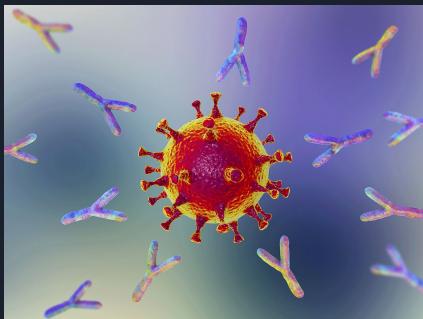
- Trials conducted with 30,000 participants across all populations
- 94.1% effectiveness in preventing Covid symptoms and infection
- Equally protective among all age, racial, and ethnic groups
- 18 and older

2 doses 4 weeks apart



# Benefits of Vaccination

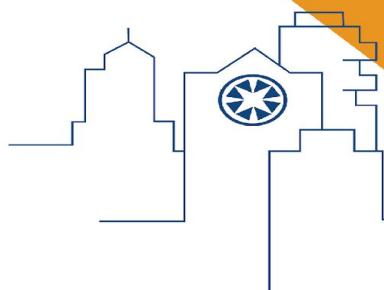
- Prevents you from getting COVID-19 and the associated symptoms



- Will allow your body to create COVID-19 antibodies to prevent the high risk associated with natural immunity
- Important tool to stop the spread of COVID-19 by protecting yourself and others



# Frequently Asked Questions About the Vaccine



# Pfizer: What's in the Vaccine?

**Pfizer-BioNTech COVID-19 Vaccine**  
*Suspension for Intramuscular Injection*

**195 Multiple Dose Vials**  
(after dilution each vial contains  
5 doses of 0.3 mL)

**Pfizer | BIONTECH**

**INGREDIENTS AND APPEARANCE**

**PFIZER-BIONTECH COVID-19 VACCINE**  
RNA ingredient bnt-162b2 injection, suspension

**PRODUCT INFORMATION**

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:59267-1000
Route of Administration	INTRAMUSCULAR	RNA code that instructs cells to produce SARS CoV2 Spike Protein	

**ACTIVE INGREDIENT/ACTIVE MOIETY**

Ingredient Name	Basis of Strength	Strength
RNA ingredient BNT-162B2 (UNII: 5085ZFP6S) (RNA ingredient BNT-162B2 - UNII:5085ZFP6S)	RNA ingredient BNT-162B2	0.23 g in 1.8 mL

**INACTIVE INGREDIENTS**

Ingredient Name	Strength
lipid ALC-0159 (UNII: PJH39UMU6H)	Lipid nanoparticles that carry and protect the mRNA from degradation
lipid ALC-0315 (UNII: AVX8DX713V)	
POTASSIUM CHLORIDE (UNII: 660YQ98I10)	Adjuvant used to antagonise the immune system into a sustained response
MONOBASIC POTASSIUM PHOSPHATE (UNII: 4J9FJ0HL51)	
SODIUM CHLORIDE (UNII: 451W47IQ8X)	Ionic compounds to balance pH
SODIUM PHOSPHATE, DIBASIC, UNSPECIFIED FORM (UNII: GR686LBA74)	
SUCROSE (UNII: C151H8M554)	Stabiliser used to prevent ingredient separation & sticking

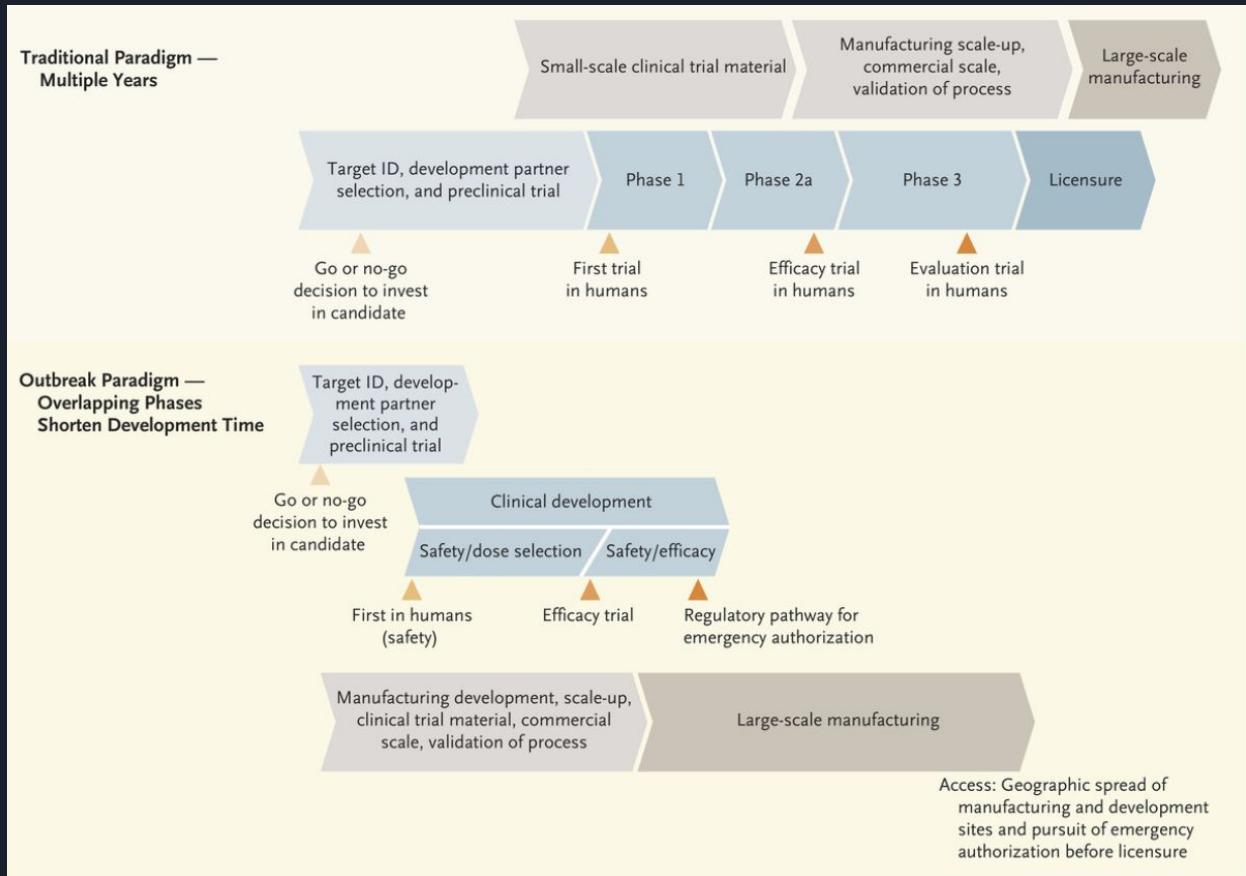
# How was the vaccine developed so rapidly?

## 1. Years of vaccine development

## 2. Large scale funding

## 3. Early manufacturing

## 4. Large sample size of voluntary participants



# Does the vaccine produce allergic reactions?

- Some vaccines do produce allergic reactions in some people
  - **Very uncommon**
- As recommended by the CDC, if you have a history of allergic reactions or have had reactions to other vaccines or injectable medicines, **seek counsel with your doctor to decide if the vaccine is right for you.**



# What are the side effects?

- On the arm where shot was received:
  - May experience soreness and swelling
- Throughout the rest of the body:
  - May experience fever, chills, tiredness and headaches
- Very similar side effects for other common vaccines



# Will I have any severe reactions?

- None of the ingredients in the vaccine have been shown to actively cause illness or injury.
- You may have seen scare media about cases of Bell's Palsy due to the vaccine.
- While some individuals did develop Bell's Palsy, it **did not occur at any greater rate than is natural** in the general population
  - 1 in 10,000 naturally (CDC)
  - 4 in 43,000 in one study (CDC)



Are there different vaccines for different races and ethnic groups?

All the current vaccines are equally protective for all age, racial, and ethnic groups.



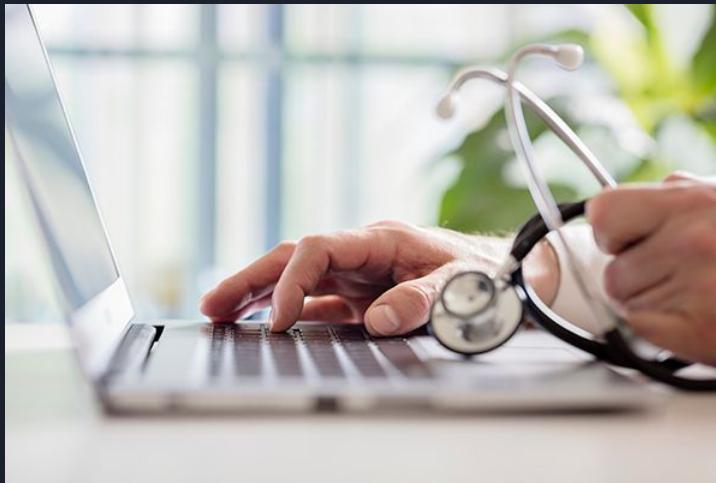


## Are there clinical considerations regarding whether or not you should take the vaccine?

- If you are pregnant or breastfeeding, **consult your doctor**
- If you are immunosuppressed or take immunosuppressive therapy, you may have a **lessered immune response** to the vaccine
- You should **not** receive the vaccine within 14 days of receiving another vaccine
  - Allow 14 days before or after receiving the COVID-19 vaccine to receive any other vaccines
- If you have a history of severe allergic reactions, **consult your doctor**



# Who should not receive the vaccine?



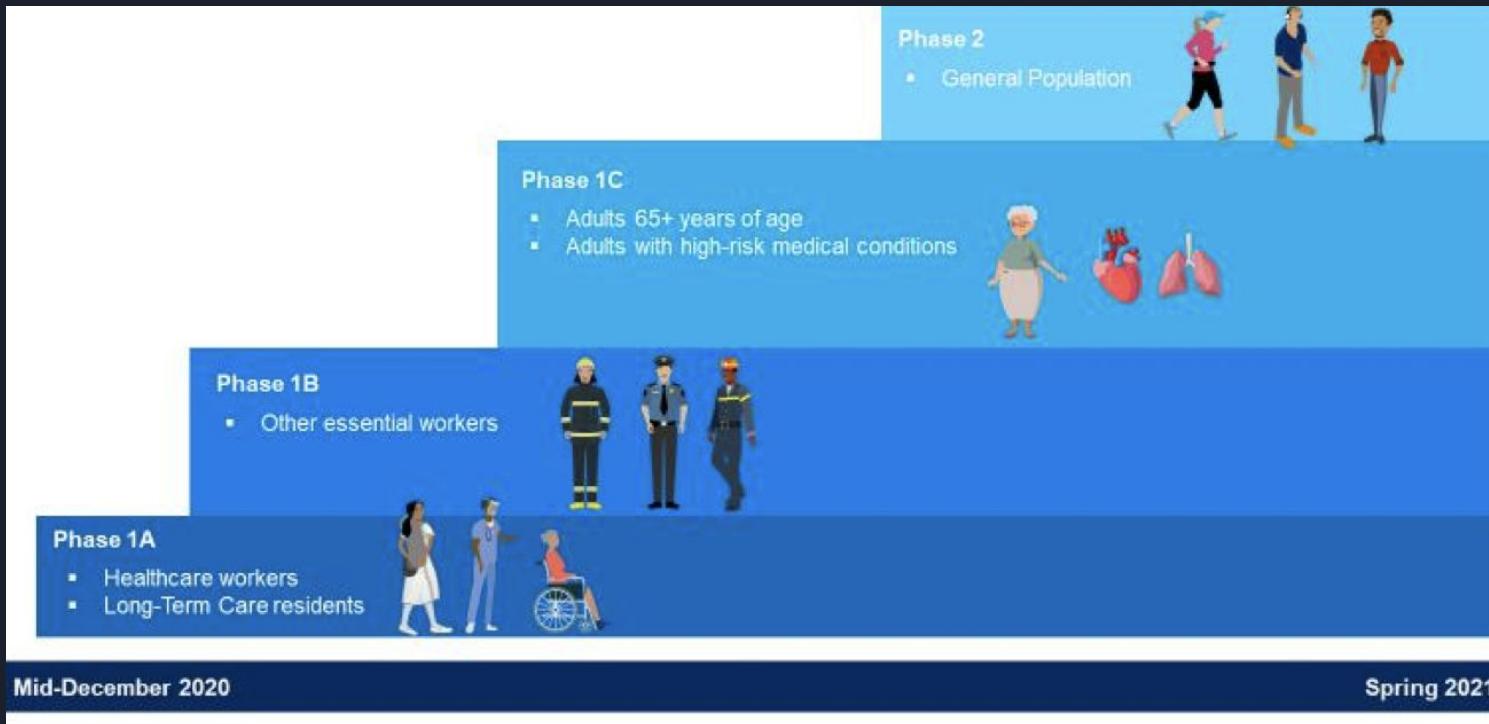
- If you have a history of severe allergic reactions, **consult a doctor beforehand**
- Had a severe allergic reaction to a previous dosage of the COVID-19 vaccine
- Had a severe allergic reaction any ingredients of the vaccine



Are the first to receive the vaccine serving as a test for safety and efficacy?

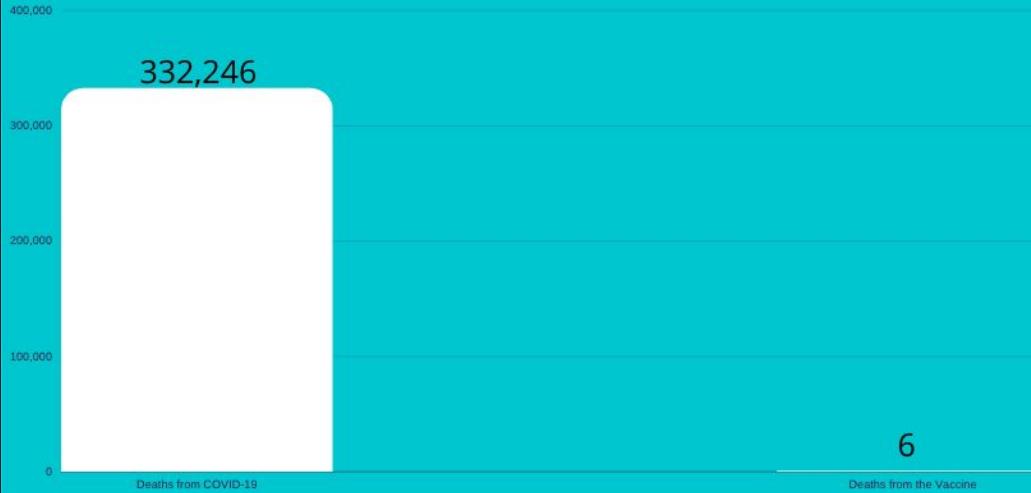
- The vaccine has gone through all 3 phases of clinical trials, verifying the effectiveness of the vaccine on over 43,000 trial participants
- More than 2.1 million americans have already received the vaccine
  - vouching for the safety and widespread desire to take the vaccine

# Vaccine Roll-out Schedule: Who will be able to get vaccinated?



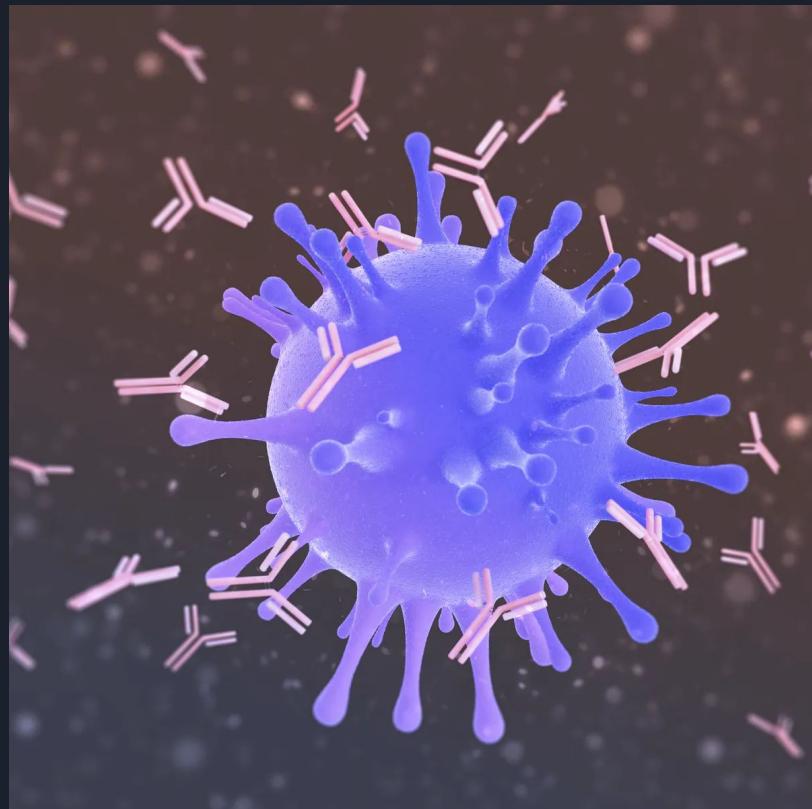
# Is the vaccine safe?

## COMPARISON OF DEATHS FROM COVID-19 AND FROM THE VACCINE



# How soon after getting the vaccine will you be protected?

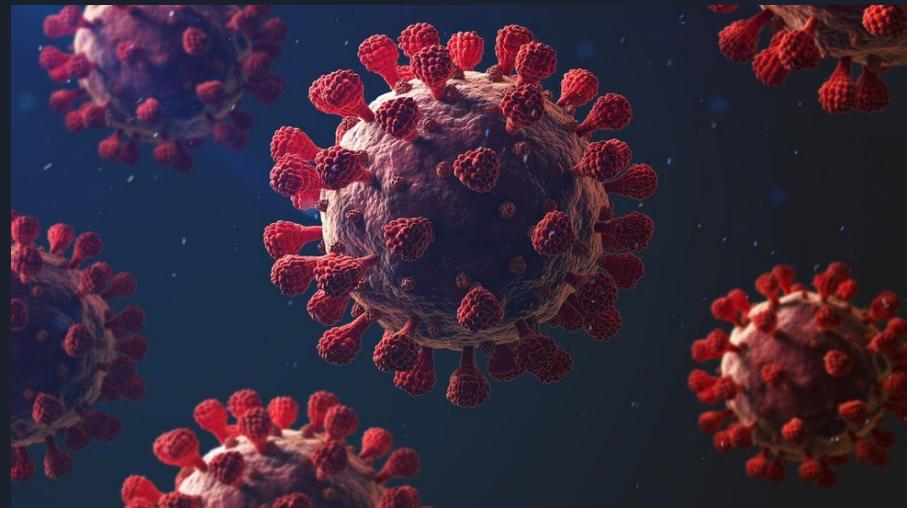
- Antibodies form about 1 to 2 weeks after receiving the vaccine
- Immunity can be expected at least a week **after receiving the 2nd dose**
- **To receive full protection, you must get both doses of the vaccine**





If you had a COVID-19 antibody test and had antibodies, do you still need to be vaccinated?

- Recovering from COVID-19 may provide you with natural immunity, but it is unclear how long this immunity lasts and how effective it is.
  - Some early evidence shows that natural immunity from COVID-19 may not last very long.
- In order to be well protected from COVID-19, you should get vaccinated.





Do you still need a mask and social distancing after getting the vaccine?



- **Yes, you must still wear a mask and social distance**
- The vaccine will boost your immune system but it is not known if vaccinated people can still transmit the virus to others
- There is currently not enough of the vaccine to vaccinate everybody, so the virus is still spreading
- Continue to follow all CDC guidelines

# Can the COVID-19 vaccine alter your DNA?

No, the vaccine cannot alter your DNA.

- The vaccine uses Messenger RNA, or mRNA, to provoke an immune response.
- The mRNA **does not interact** with the DNA in your cells.



# Is it safer to get COVID-19 instead of getting the vaccine?

## COVID-19

- fever
- long term shortness of breath
- cough
- joint pain
- muscle pain
- headaches
- loss of smell
- loss of taste
- memory problems
- sleep problems
- concentration problems
- rashes
- hair loss
- increased risk for Parkinson's
- increased risk for Alzheimer's
- increased risk for heart attack and stroke

## VACCINE

- pain at injection site
- fever
- chills
- tiredness
- headache

# Where Will You Be Able to Get the Vaccine?

- The Paterson Division of Health Building will be dispensing vaccines to healthcare workers.
- The Division of Health plans on opening a center at the International High School.





Questions?

# References

- <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/underlying-conditions.html>
- <https://www.nejm.org/doi/full/10.1056/NEJMoa2034577>
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