COVID 19 VACCINES

Currently there are 3 vaccines that have been granted for emergency use authorization by the FDA (Food and Drug Administration) being the Moderna, Pfizer, and Johnson & Johnson. The Moderna and Pfizer vaccine are both 2 dose MRNA vaccines given via intramuscular injection either 28 (Moderna) or 21 (Pfizer) days apart. The Moderna vaccine is 94.1% effective whereas the Pfizer is 95% effective following 2 weeks after the second vaccination has been given. The Johnson & Johnson vaccine is a one dose viral vector vaccine also given via intramuscular injection that is considered to be 85% effective 2 weeks post vaccination.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Type of Vaccine</th>
<th>Number of Doses</th>
<th>Prevents Death from COVID-19*</th>
<th>Prevents Hospitalization / Severe Illness from COVID-19*</th>
<th>Full Protection Gained</th>
<th>Approved Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pfizer</td>
<td>mRNA</td>
<td>2</td>
<td>100%</td>
<td>75-95% 7 days after 2nd dose</td>
<td>14 days after 2nd dose</td>
<td>16+</td>
</tr>
<tr>
<td>Moderna</td>
<td>mRNA</td>
<td>2</td>
<td>100%</td>
<td>94-100% 14 days after 2nd dose</td>
<td>14 days after 2nd dose</td>
<td>18+</td>
</tr>
<tr>
<td>Johnson-Johnson</td>
<td>Viral vector (adenovirus)</td>
<td>1</td>
<td>100%</td>
<td>73-85% 14-28 days after 1st dose</td>
<td>28 days after 1st dose</td>
<td>18+</td>
</tr>
</tbody>
</table>

As of February 27, 2021, large-scale (Phase 3) clinical trials are in progress or being planned for two COVID-19 vaccines in the United States:

- AstraZeneca COVID-19 vaccine
- Novavax COVID-19 vaccine

For more information on the Pfizer vaccine: visit https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/Pfizer-BioNTech.html

For more information on the Moderna vaccine: visit https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines/Moderna.html

For more information on the J&J vaccine: visit https://www.cdc.gov/vaccines/covid-19/information-by-product/janssen/index.html
How do the Moderna and Pfizer Vaccines (mRNA) work?

mRNA vaccines are new but not unknown. Researchers have been working with these vaccines for decades for flu, zika, and rabies. mRNA vaccines teach cells how to make a harmless protein called a “spike protein.” When you receive your shot, the cell will use the mRNA to make the spike protein and place it on the surface of the cell. Your body will realize these don’t belong and begin building an immune response and making antibodies, like what happens in a natural infection. At the end, your body will know how to protect against future infection.

Can the COVID-19 Vaccine make me sick?

No. You can not get COVID 19 from the vaccine.

How does the Johnson and Johnson Vaccine Work?

The J&J shot is a viral vector vaccine. This method is commonly used in vaccines and have also been studied for gene therapy, cancer treatment, and molecular biology research. The viral vector vaccine uses a vector (a modified version of the virus, NOT the COVID 19 virus) to teach the body how to make an immune response. The vaccine creates a spike protein on the surface of the cell, which your body will recognize and trigger an immune response. At the end of the process, our bodies will learn to protect us against future infection of COVID 19.

Will I test positive after receiving the COVID 19 vaccine?

No. You will not test positive on a antigen test, which tests for an active infection.

What We Know and What We’re Still Learning

- We know that the COVID vaccine prevents COVID-19 disease, especially severe illness and death.
  - We’re still learning how effective the vaccines are against variants of virus.
  - We’re still learning how well COVID-19 vaccines keep people from spreading the disease.
  - We’re still learning how long the COVID 19 vaccines can protect people.
Who is Eligible?

- As of December 15th, 2020: Healthcare Personnel, Long Term Care Residents and Staff
- As of January 7th: Frontline First Responders
- As of January 14th: Persons aged 65 and older, Persons ages 16 to 64 years old who have at least one medical condition
- As of March 2nd: Childcare workers
- As of March 15th: Persons experiencing homelessness, migrant workers, persons living in shelters, tribal communities, front essential workers (public/local transportation, public safety)
- As of March 29th: Frontline essential sectors (clergy, elder care and support, elections personnel, food production, agriculture, and distribution, hospitality, judicial system, medical supply chain, social services support staff, postal and shipping services, warehousing and logistics)
Isolation vs. Quarantine

Isolation is used to separate those who are infected with COVID-19 or have symptoms of COVID-19 from those who are not infected. People who are in isolation should stay at home. To isolate safely at home, anyone who is sick should stay in a separate room or area in the house and continue to monitor symptoms. It is safe to come out of isolation when the infected person is three days without a fever, cough has improved, or is ten days without any symptoms.

Quarantine is to keep someone who might have been in contact with someone with COVID-19 away from others. This helps the spread of disease that may occur before a person knows if they are sick or infected. Those in quarantine should stay home for 14 days after last contact with a positive COVID-19 person. They should separate themselves from others while monitoring their symptoms and health.

Double Masking

On Feb. 10, 2021, the CDC released data that supports that double-masking (with a cloth mask on top of a medical-grade mask) can substantially reduce the wearer’s exposure to COVID-19. The studies they performed examined two ways of enhancing mask use:

1) double-masking, and 2) knotting the ear loops of the medical procedure mask and tucking in and flattening the material close to the face.

The CDC’s study found that when both people in an in-person scenario are taking advantage of these techniques to enhance mask effectiveness, their exposure to potentially infectious aerosols is decreased by about 95%.

A combination of a cloth mask covering a medical procedure mask (double masked) blocked 85.4 percent of cough particles in a CDC conducted experiment.

**Contract Tracing**

Contact tracing is used by health departments to prevent further spread of an infectious disease. This is key to slowing the spread of COVID-19 and helps keep you, your family, and your community safe.

Contact Tracing Involves:

- Interviewing people with COVID-19 to identify who they have been in contact with during the time of infection.
- Notifying the contacts that they have been exposed to a COVID-19 positive person.
- Referring contacts for testing.
- Connecting contacts with services they might need during self-quarantine.

**Morris County Medical Reserve Corps**

The Morris County Medical Reserve Corps is a well-prepared and trained workforce of volunteers to help public health protect the community in the event of a public health emergency.

To learn more about the MRC, or to fill out a volunteer application, visit [https://www.morriscountynj.gov/Residents/Health/Volunteer-for-the-Medical-Reserve-Corps](https://www.morriscountynj.gov/Residents/Health/Volunteer-for-the-Medical-Reserve-Corps)

**Who is my Local Health Department?**

Morris County has 11 different health departments that service it’s 39 municipalities. Many health departments cover numerous towns. To see who your local health department is, visit [https://www.state.nj.us/health/lh/documents/LocalHealthDirectory.pdf](https://www.state.nj.us/health/lh/documents/LocalHealthDirectory.pdf)
The mission of the Morris County Division of Public Health is to promote public health, to prevent the spread of disease, and to protect the environment, through awareness, compliance, education, training, and emergency response.

Contributing Writers:
Imge Uludogan, CHES
Kristina Favo, MPH
Bonnie Smith, CHES

Your Health Matters is not copyrighted. Any or all parts may be reproduced without permission. However, an acknowledgment of the source would be appreciated. The following resources were used as references in this addition: Centers of Disease Control and New Jersey Department of Health. Reference to any site on the internet is provided as a service to readers and does not constitute or imply endorsement of the information on the web site by the Morris County Division of Public Health. The Morris County Division of Public Health is not responsible for the content of the pages found at these sites.