

Agenda

Basics of COVID-19 Overview of COVID-19 Vaccines Myths and Facts COVID-19 Health Disparities

2 © 2019 Mid-Atlantic Permanente Medical Group











How COVID-19 Vaccines Work

How COVID-19 Vaccines Work

COVID-19 vaccines help our bodies develop immunity to the virus that causes COVID-19 without us having to get the illness.

There are three types:

- 1. **mRNA vaccines:** Pfizer/BioNTech & Moderna
- 2. Viral vector vaccines: Janssen
- 3. Protein subunit vaccines: none are currently approved





Myocarditis after mRNA vaccines

U.S. Food and Drug Administration added a warning about rare cases of heart inflammation in adolescents and young adults to fact sheets for the Pfizer/BioNTech (PFE.N), and Moderna (MRNA.O) COVID-19 vaccines

What You Need to Know

- · Cases of myocarditis have occurred:
 - After mRNA COVID-19 vaccination (Pfizer-BioNTech or Moderna), especially in male adolescents and young adults,
 - More often after the second dose
 - Usually within several days after vaccination
- Most patients with myocarditis or pericarditis who received care responded well to medicine and rest and felt better quickly.
- Patients can usually return to their normal daily activities after their symptoms improve. Those who have been diagnosed
 with myocarditis should consult with their cardiologist (heart doctor) about return to exercise or sports. More information
 will be shared as it becomes available.

CDC/ACIP. CDC/ACIP recommendations are:

- · Benefits greatly outweigh risks
- · Take complaints of chest pain seriously post-vaccination and rule out serious conditions

Source: CDC COVID-19. Myocarditis and Pericarditis After mRNA COVID-19 Vaccination. Available at: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/myocarditis.html



Thrombosis with Thrombocytopenia Syndrome (TTS) after Vaccination with J&J/Janssen COVID-19 Vaccination

After receiving the J&J/Janssen COVID-19 Vaccine, there is risk for a rare but serious adverse event—blood clots with low platelets (thrombosis with thrombocytopenia syndrome, or TTS).

Women younger than 50 years old should especially be aware of their increased risk for this rare adverse event. There are other COVID-19 vaccines available for which this risk has not been seen.

This adverse event is rare, occurring at a rate of about 7 per 1 million vaccinated women between 18 and 49 years old.

For women 50 years and older and men of all ages, this adverse event is even more rare.

12 © 2019 Mid-Atlantic Permanente Medical Group



Approved COVID-19 Vaccines

PERMANENTE MEDICINE.

Pfizer-BioNTech

Who Can Get this Vaccine ^[1] People 5 years and older

Number of Shots 2 shots Given 3 weeks (21 days) apart ^[2]

When Fully Vaccinated 2 weeks after your second shot

Additional Dose Recommended for <u>moderately to</u> <u>severely immunocompromised</u> <u>people</u> Given 4 weeks after second shot

Booster Dose

Recommended for some people who are <u>at higher risk for COVID-19</u> <u>exposure or severe illness</u> ^[2] Given 6 or more months after second shot Who Can Get this Vaccine [1] People 18 years and older

Moderna

Number of Shots 2 shots Given 4 weeks (28 days) apart ^[2]

When Fully Vaccinated 2 weeks after your second shot

Additional Dose Recommended for <u>moderately to</u> <u>severely immunocompromised</u> <u>people</u> Given 4 weeks after second shot

Booster Dose Not recommended at this time Who Can Get this Vaccine [1] People 18 years and older

Johnson & Johnson's Janssen

Number of Shots 1 shot

When Fully Vaccinated 2 weeks after your shot

Additional Dose Not recommended at this time

Booster Dose Not recommended at this time

Mid-Atlantic Permanente Medical Group

Source: CDC COVID-19. Different COVID-19 Vaccines.

Overview

COVID-19

Vaccines

of

Available at: https://www.cdc.gov/coronavirus/2019-ncov/vaccines/different-vaccines.html





How do the three vaccines compare?

The only way to accurately compare the effectiveness is by direct head-to-head clinical trials, which have not been done for these vaccines.

The clinical trials for these vaccines were conducted in different geographic regions and at different points during the pandemic with varying COVID-19 infection rates.

The Centers for Disease Control and Prevention (CDC), vaccine experts, and Kaiser Permanente do not advocate any one COVID-19 vaccine over another.

All 3 vaccines are highly effective (greater than 90%) at preventing severe disease and hospitalization from COVID.

All 3 vaccines were effective across gender, age, race and ethnicities in clinical trials.

It is important to understand the full immune protection is expected two weeks after completing vaccination.

PERMANENTE MEDICINE® Mid-Atlantic Permanente Medical Group



COVID-19 Vaccine Effectiveness

Vaccine Effectiveness

Vaccine effectiveness studies provide a growing body of evidence that mRNA COVID-19 vaccines offer similar protection in real-world conditions as they have in clinical trial settings. Reducing the risk of COVID-19, including severe illness, among people who are fully vaccinated by **90 percent or more.**

CDC and other experts continue to study the effectiveness of both mRNA vaccines and the Johnson & Johnson's Janssen (J&J/Janssen) COVID-19 vaccine in real-world conditions.

> Source: CDC COVID-19. COVID-19 Vaccines Work. Available at: <u>https://www.cdc.gov/coronavirus/2019-r</u>

VACCINE

Possibility of COVID-19 Illness after Vaccination

Slowing the Spread of COVID-19

 COVID-19 vaccines protect people from getting infected and severely ill, and significantly reduce the likelihood of hospitalization and death

19 © 2019 Mid-Atlantic Permanente Medical Group

 Getting vaccinated is the best way to slow the spread of COVID-19 and to prevent infection by Delta or other variants.

Vaccine Breakthroughs

- A vaccine breakthrough infection happens when a fully vaccinated person gets infected with COVID-19. People with vaccine breakthrough infections can be contagious.
- Fully vaccinated people with a vaccine breakthrough infection are less likely to develop serious illness than those who are unvaccinated and get COVID-19

20 © 2019 Mid-Atlantic Permanente Medical Group



Vaccine Breakthroughs & Variants

PERMANENTE MEDICINE. Mid-Atlantic Permanente Medical Group

- Research shows that the FDA-authorized vaccines offer protection against severe disease, hospitalization, and death against currently circulating variants.
- The risk of complications from COVID-19 variants is much greater in unvaccinated compared
- to vaccinated people

How CDC Monitors Breakthrough Infections

- CDC collects data on vaccine breakthrough infections through outbreak investigations.
- CDC also conducts ongoing research studies to monitor the performance of vaccines in preventing infection, disease, hospitalization, and death.













PERMANENTE MEDICINE. Mid-Atlantic Permanente Medical Group

Robust vaccine safety monitoring systems exist Existing systems and data sources are used to monitor safety of vaccines post-authorization and post-licensure, such as: Vaccine Adverse Event Reporting System (VAERS) Vaccine Safety Datalink (VSD) Clinical Immunization Safety Assessment (CISA) 4 Biologics Effectiveness and Safety System (BEST) New systems have been developed to monitor COVID-19 vaccine safety, such as v-safe: Active surveillance that uses text messaging to initiate web-based survey monitoring. Will provide telephone follow up to anyone who reports 4 medically significant adverse events.

27 © 2019 Mid-Atlantic Permanente Medical Group





Women and Children

COVID Vaccine and Pregnancy

Pregnant and recently pregnant people are more likely to get severely ill with COVID-19 compared with non-pregnant people.

Evidence about the safety and effectiveness of COVID-19 vaccination during pregnancy has been growing.

COVID-19 vaccination is recommended for all people 5 years and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future.

There is currently no evidence that any vaccines, including COVID-19 vaccines, cause fertility problems in women or men.



Source: NIH Director's Blog Studies Confirm COVID-19 mRNA Vaccines Safe, Effective for Pregnant Women

COVID Vaccine in Children 5-11 Years Old

FDA and CDC approved the Pfizer-BioNTech COVID-19 vaccine for all children 5 through 11 years of age.

- Administration: two-dose primary series, 21 days apart,
- **Dosage:** lower dose (10 micrograms) and with smaller needles than that used for individuals 12 years of age and older (30 micrograms)
- Effectiveness: 90% effective in clinical trial

31 © 2019 Mid-Atlantic Permanente Medical Group

- Expected side effects: children may experience fewer side effects than adolescents or young adults. Expected side effects include:
 - · Local: pain, swelling, erythema at the injection site
 - Systemic: fever, fatigue, headache, chills, myalgia, arthralgia, lymphadenopathy
- Myocarditis: There were no cases of myocarditis after vaccination in the clinical trial



PERMANENTE MEDICINE. Mid-Atlantic Permanente Medical Group



Myths and Facts















ines a Light on Pr	re-existing I	Dispariti	es	
Risk for COV and Death B Updated Sept. 9, 2021 Print	ʻlD-19 Infe Sy Race/Eth	ction, H nnicity	ospitalizat	tion,
Rate ratios compared to White, Non-Hispanic persons	American Indian or Alaska Native, Non-Hispanic persons	Asian, Non- Hispanic persons	Black or African American, Non- Hispanic persons	Hispanic or Latino persons
Cases ¹	1.7x	0.7x	1.1x	1.9x
Hospitalization ²	3.5x	1.0x	2.8x	2.8x
Death ³	2.4x	1.0x	2.0x	2.3x
Race and ethnicity are risl socioeconomic status, acc frontline, essential, and cr	< markers for other ur ess to health care, an ritical infrastructure w	nderlying condit d exposure to th orkers.	ions that affect health ne virus related to occ	ı, including :upation, e.g.,
Sou http	https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization- desth-hy-race-ethnicity.html			

Factors that Drive Health Decision Making



possible patient **barriers**

➤ Different:

- Beliefs
- Backgrounds
- Culture
- ➤ Socio-economic concerns:
 - Taking time off work
 - Finding reliable transportation



