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PUCILLO FAMILY PRACTICE P.A.



WELLNESS CENTER

Family Medicine & Bariatrics

PFP CMPS December Newsletter: Vaccine



We hoped you all had a wonderful holiday.



Dr. Ron Pucillo, M.D.



Dr. Brian Tong, M.D.

As we approach 2021, there have and will be many new developments in the treatments and vaccines for COVID-19 infection. In this edition, we will focus on COVID vaccines. Our clinic will be offering vaccinations in the coming months. Please let us know as soon as possible if you would like to receive vaccinations.

Outline of this month's newsletter:

- Vaccine questions and answers
- How does vaccine work
- Different types of vaccines

Vaccines Questions and Answers

Common Questions

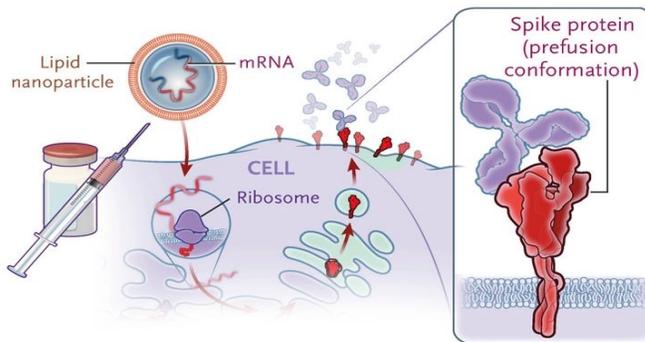
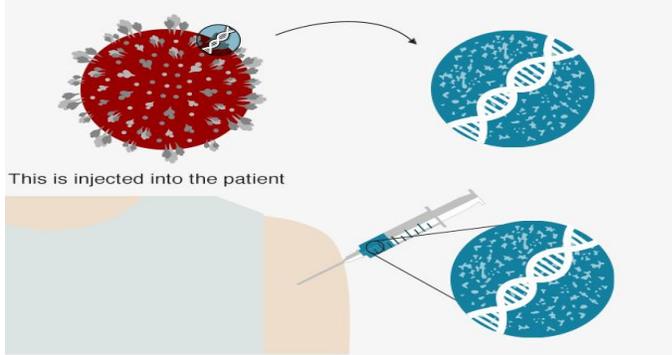
Answers

1. What is a vaccine?
Vaccine is a weakened or killed germ that stimulate the body to produce immunity to prevent disease
2. How does the vaccine work?
Vaccine is injected into the body. The body's immune system, consisting of macrophages, B cells and T cells will work together to build antibodies to recognize and fight off future infection.
3. Is COVID vaccine FDA approved?
No. COVID19 vaccine is Emergency Use Authorization, or "EUA". This is a fast-track process that bypasses the long-term safety and efficacy assessment of normal vaccine approval, and relies heavily on manufacturer input. Nonetheless, the FDA/CDC goes to great lengths to assure that the process is safe.
4. What vaccines are available?
*As of Dec 31st 2020, **Moderna and Pfizer/BioNtech** are available in the U.S.A.*
5. How many shots are needed and why?
2 shots.
 - *1st shot helps the immune system to recognize the COVID 19 virus and start to produce immunity.*
 - *2nd shot to strengthen immunity.*
6. What are the adverse reactions?
Myalgia, local swelling and irritation, joint pain, fever, chills, body ache, severe allergic reaction, facial paralysis
7. How soon will I be immune after vaccination?
*After 1st shot, 10-14 days will provide 50% immunity
After 2nd shot, will provide 95-99% immunity*
8. Do I still have to wear masks?
Yes. Even though the vaccine can provide protection for us. We can pass it onto others who are not vaccinated.
9. How will the vaccine be distributed?
Phases
 - *1a - **Healthcare personnel and residents of long-term care facilities***
 - *1b - **Frontline essential workers** such as fire fighters, police officers, corrections officers, food and agricultural workers, United States Postal Service workers, manufacturing workers, grocery store workers, public transit workers, and those who work in the educational sector (teachers, support staff, and daycare workers.) **People aged 75 years and older***
 - *1c - **People aged 65—74 years** because they are at high risk of hospitalization, illness, and death from COVID-19. People aged 65—74 years who are also residents of long-term care facilities should be offered vaccination in Phase 1a.
People aged 16—64 years with underlying medical conditions which increase the risk of serious, life-threatening complications from COVID-19.
Other essential workers, such as people who work in transportation and logistics, food service, housing construction and finance, information technology, communications, energy, law, media, public safety, and public health.*

How does Vaccine Work

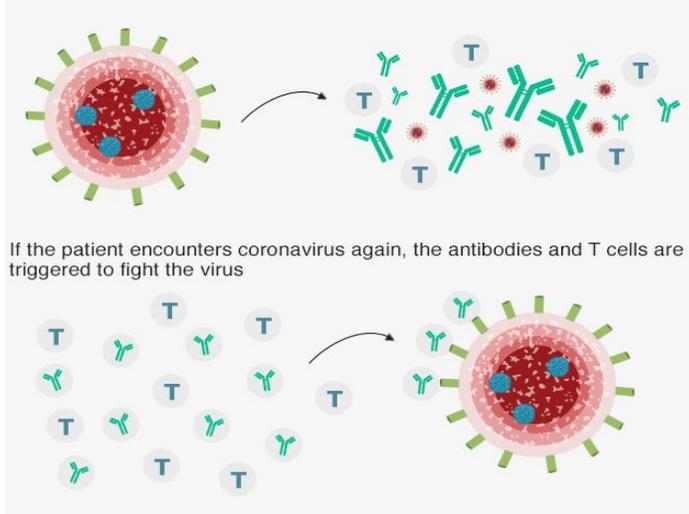
How coronavirus vaccine will work

Scientists have taken genes for the spike protein on the surface of coronavirus, and put them into a harmless virus to make a vaccine



The vaccine enters cells, which then start to produce the coronavirus spike protein

This prompts the immune system to produce antibodies and activate killer T-cells to destroy infected cells



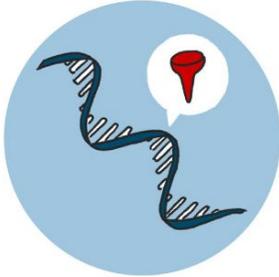
- Injection of mRNA vaccine into patient
- Body will absorb the mRNA vaccine and starts to produce viral spike proteins on our cell's surface
- The spike proteins will elicit the body to start to produce antibodies and Killer T cells in preparation to fight off the virus
- When our body encounter COVID virus, it will quickly recognize and ready to neutralize them

Different Types of Vaccine

Vaccines

Type

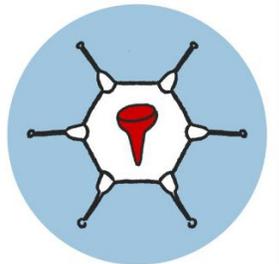
Companies



mRNA Vaccine

- messenger RNA, (viral genetic software that instructs cells to make a piece of the coronavirus spike protein. That will get the attention of the immune system. The mRNA is coated in soft fatty lipids to protect it.

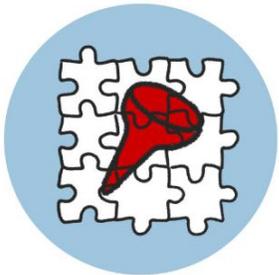
**Pfizer
Moderna**



Vector Vaccine

- Vector vaccines use another virus to carry in the genetic instructions to make the spike protein.
- For coronavirus they all use adenoviruses, a type of common cold virus. They attach to cells and inject DNA that tells the cells to make coronavirus spike protein.

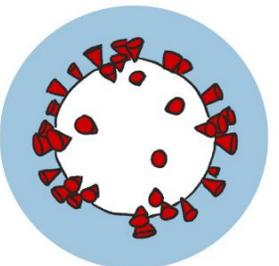
**Astrazeneca
Janssen
Sputnik**



Protein subunit vaccine

- Protein subunit vaccines just get little pieces of the target virus circulating in the system for the immune system to find and recognize.

**Novavax
Sanofi**



Whole killed vaccine

- inactivated virus vaccines help

Sinovac

We wish you all the very best in 2021. Please feel free to contact us if you have any questions.

Sincerely,

Everyone at Pucillo Family Practice