

**SAFE AND EFFECTIVE  
COVID-19 VACCINE FACT SHEET**

**VACCINES ARE ONE OF THE KEYS TO ENDING THE COVID-19 PANDEMIC**  
Scientists and pharmaceutical companies around the world have joined together and risen to the challenge of creating a safe and effective vaccine.

**QUESTIONS ABOUT VACCINES** are circulating on [social media](#) and in casual conversations. Understanding the facts is critical to fighting the virus by using a vaccine that is both effective and free of cost to Pennsylvanians.



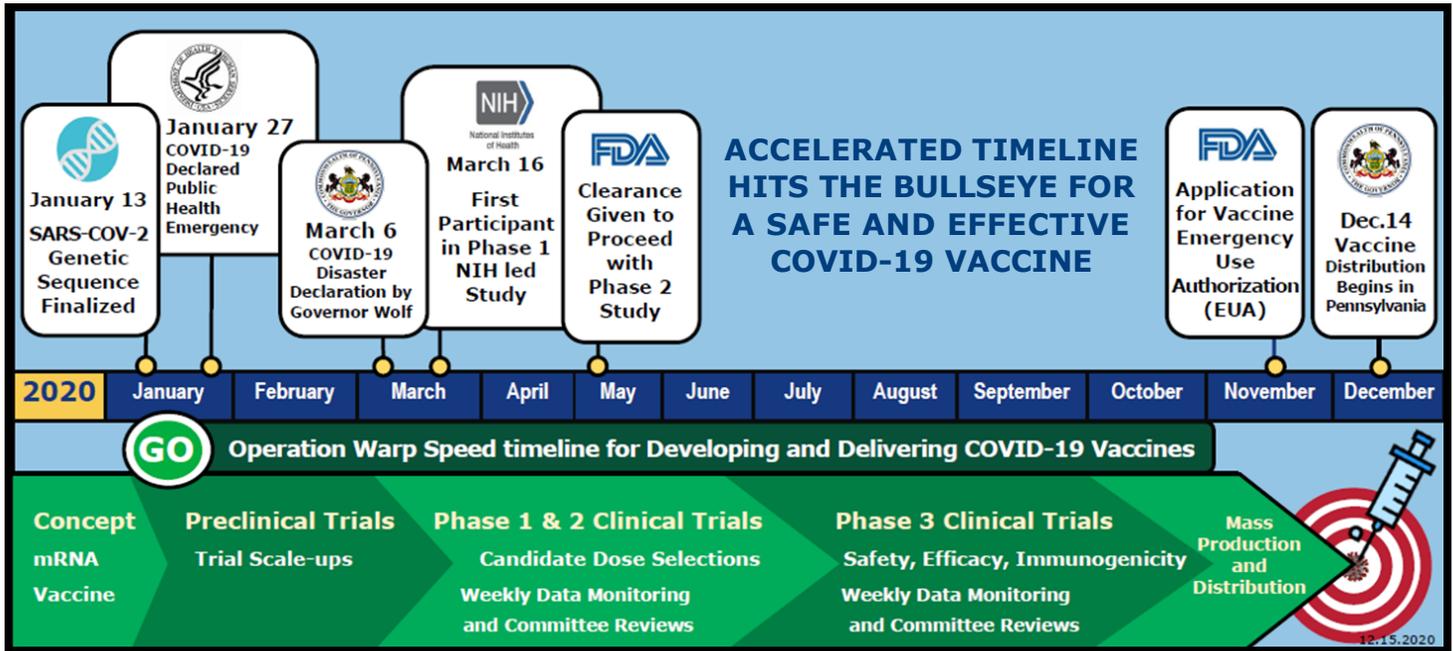
[health.pa.gov](http://health.pa.gov)  
[cdc.gov](http://cdc.gov)

**DEBUNKING COVID-19 VACCINE MYTHS**

VACCINE MYTHS	VACCINE FACTS
Development was rushed and the vaccine is not safe.	No safety shortcuts were taken and large studies show the vaccine is safe.
The COVID-19 vaccine changes your DNA.	The vaccine can not change your DNA, but it does trigger an immune response.
I already had COVID-19, so I do not need a vaccine.	We are still learning if natural immunity occurs in all cases.
The vaccine was made to control people through microchip tracking.	There is no vaccine microchip, and the info that is collected during vaccine administration is maintained confidentially and securely.
The vaccine can give you COVID-19.	The vaccine does not contain the virus and cannot cause infection or positive diagnostic test results. *
The COVID-19 vaccine uses fetal tissue.	Neither the Pfizer nor Moderna vaccines contain or use fetal cells in production.
Very low temperatures are needed for storage because of preservatives.	None of the vaccines contain preservatives. The messenger RNA is fragile and breaks down when not frozen.
The COVID-19 vaccine contains egg protein.	The vaccine does not contain proteins and can be given to people with egg allergies.
The vaccine causes severe side effects or death.	Most people have mild side effects and the vaccine prevents illness from COVID-19.
The COVID-19 vaccine can make women infertile.	There is no evidence that it causes infertility or increases the chances of miscarriage.



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**COVID-19 VACCINE DEVELOPMENT TIMELINE**

was adapted to meet the urgent need to lessen the severity of the world’s COVID-19 outbreak.

**SCIENTISTS AND PUBLIC HEALTH OFFICIALS**

studying COVID-19 have benefited from existing data and years of coronavirus vaccine research. Experience gained from the 2003 SARS and 2012 MERS outbreaks sped up vaccine development. Also, after decades of research, the easier-to-produce mRNA vaccine\* was able to be used.

**COOPERATION AND DATA-SHARING**

saved time as researchers shared the SARS-CoV-2 viral genome sequence with twenty other research institutions in January of 2020.

**THE WORLDWIDE SUPER SPREAD OF COVID-19**

made for the quick gathering of many COVID-19 cases to study vaccine safety and efficacy.

**TO EXPEDITE COVID-19 VACCINE TRIALS,**

some trial phases were stacked or combined.

**STRICT SAFETY TESTING AND ENROLLMENT**

regulations in clinical trials were not “fast-tracked,” instead the paperwork for regulatory approvals was accelerated. Also, the Advisory Committee on Immunization Practices held early meetings concerning distribution before vaccine development, and technology has improved.

**LARGE SCALE FINANCIAL RISK WAS ASSUMED**

as mass manufacturing of vaccines began before the final Emergency Use Authorization (EUA) was received from the FDA. This allowed for vaccine distribution as soon as approval was received. Also, the need to fundraise was eliminated when legislation including the U.S.A’s Operation Warp Speed and the CARES Act was approved.

**\* THE MESSENGER RNA VACCINE (mRNA)**

technology has been used for some of the COVID-19 vaccines authorized in the United States. An mRNA vaccine contains a harmless piece of the virus. The vaccines work by training the body to recognize and respond to the proteins produced by disease causing organisms, such as the SARS-CoV-2 virus. The vaccine allows our bodies to gain protection from the virus without having to risk being sick.

**THE METHODS USED FOR THE SPEEDY DEVELOPMENT OF THE COVID-19 VACCINES ARE BOTH SCIENTIFIC AND ETHICAL**



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DEPARTMENT OF HEALTH

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