



PITTSFIELD BOARD OF HEALTH

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Information about the COVID-19 Vaccines – FAQs

While there has been much anticipation and excitement about the COVID-19 vaccines, there have understandably been some concerns about safety and long-term effectiveness. This FAQ communication has been developed to address those concerns.

Can I get COVID-19 disease from the vaccine? Is there “live virus” in the vaccine?

No, to both. The COVID vaccines that have been approved for human usage **do not** contain live or even inactivated viruses so you cannot get the COVID disease from the vaccines. They have been developed using a technology that has been under development for many years but is now being used in vaccine production. It utilizes messenger RNA (mRNA) which provides a genetic “instruction manual” or “blueprint” to enable the vaccine recipient’s cells to make the same spike protein that exists on the outer coat of the COVID virus. This protein (not a live virus, just the spike protein) is recognized by the body’s immune system as “foreign”, thereby stimulating the production of antibodies which would be available to neutralize the virus should a person come in contact with it. After the mRNA directs the production of antibodies, it is degraded by the cell. (While we all have thrown away instruction manuals in the past, in this case it is a good thing.)

It is important to point out that while mRNA is genetic material, ***it does not in any way alter the genetic make-up or the DNA of the person getting the vaccine.*** It does not even enter the nucleus of the cell where DNA is located and again, the body degrades the mRNA after it has done its job making antibodies.

What are the side effects of the vaccine?

A very small percentage of people who have gotten the vaccine have gotten side effects that are similar to symptoms seen in the disease such as headache, muscle aches, and fatigue but these generally last no more than 1-2 days and usually are not severe enough to interfere with work. It is not uncommon to have some pain in the arm where the shot is given but that is also short-lived. Vaccines are among the safest pharmaceuticals out there.

I have read that the vaccines were developed on a “fast track”. Is it possible that safety concerns were overlooked or compromised to get it out quickly?

The vaccines from Pfizer/BioNTech and Moderna that have so far received “emergency use authorization” from the Food and Drug Administration and the CDC were approved after testing on 30,000 to 40,000 individuals and the results showed overwhelming effectiveness and safety. It is true that these vaccines were developed more quickly than other vaccines in the past but that is because the unique technology used allowed it to be produced more quickly. Instead of giving an actual viral particle which causes the body to make antibodies, we are giving the body “instructions” on how to make antibodies (see first question above) and this is a quicker, more efficient process.

Going forward, people who get the vaccines will be monitored for side effects and if there appears to be any sign that there are serious unanticipated side effects, vaccine policy will be modified accordingly.

I have heard there is a dangerous new “variant” virus with a “mutation” that is going around. What’s up with that?

Viruses commonly mutate; that is, they spontaneously change some of their genetic structure. The mutation that was discovered initially in the United Kingdom and now elsewhere does not appear to be making the virus cause more serious disease or making the vaccine less effective though it might be making it easier to transmit from person to person which can increase the number of people who contract COVID-19 – ***yet one more good reason to keep wearing masks, maintaining social distancing, and washing your hands.***

Will the two doses of the vaccine give me life-long immunity?

At this point in time, we just do not know because it is a brand-new vaccine. After you get the vaccine, the antibody level in your bloodstream will gradually rise and peak at about two weeks but with the currently-used vaccines, a second dose, or booster, will be required to confer long-term immunity. With every vaccine that has ever been developed, antibody levels have been

measured over many years in those who have been vaccinated. Long-term monitoring of COVID antibodies will determine if more booster doses will be needed in the future.

I had COVID-19 disease already. Will I still need to get the vaccine?

You should get the vaccine even if you have already had the disease since it is not known how long immunity from natural disease will last. There is no contraindication for getting the vaccine. Although getting the vaccine will not do any harm if you have had the disease you should wait at least until you are recovered from the illness and are beyond the 10-day period of isolation.

Will I still need to wear a mask after getting the vaccine?

Yes. While we know that the vaccine protects people from getting symptomatic disease, it is still not clear that it completely eradicates the virus from the nasal passages or prevents asymptomatic infection which could potentially be transmitted to another person. Therefore, masking is still essential to protect yourself and others.

I have heard of people having allergic reactions and fainting after getting the vaccine. Should I be concerned if I have seasonal allergies or food allergies?

People who have a history of **severe** allergic reactions such as anaphylaxis will want to mention it when they go to get their vaccine. You should also discuss this with your own medical provider to find out if they might recommend you taking an antihistamine such as diphenhydramine (Benadryl®) before getting the vaccine.

Fainting after any shot or painful procedure is not uncommon and you probably already know if you are one of those people who are prone to fainting. This is not dangerous and the lightheadedness usually passes within minutes. You should mention this to the person giving you the vaccine before it is given. As an extra measure of safety, medical personnel will be on-site at vaccine clinics to help with any unexpected reactions.

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