

Introduction

There is good evidence that COVID-19 vaccines will prevent the severe complications of COVID-19. Getting vaccinated may also protect those around you.

This summary explains COVID-19 vaccines and their side effects. Common myths and misconceptions about the COVID-19 vaccines are also explored.

How Vaccines Work

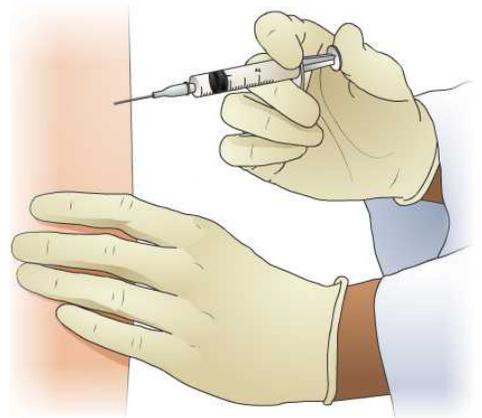
When germs enter the body, the immune system learns how to build antibodies and other special cells that recognize and fight off the germs.

Sometimes the germs multiply faster than the body can fight them off. When this happens, they overwhelm the body, and the person gets sick.

Once the immune system catches up, it overpowers the germs, and the person recovers. If the immune system can't catch up and adapt intelligently, complications can happen. In very severe cases, this can result in death.

Vaccines teach the body to make antibodies ahead of time before a living germ ever enters the body. Traditional vaccines do this by exposing the immune system to a non-living part of that germ or a weakened version of the germ. This prepares the immune system to fight off that specific germ if it attacks later, making the person immune.

COVID-19 vaccines do not contain live viruses and cannot make a person sick. Traditional vaccines use a virus that is either dead or too weak to cause illness. COVID-19 vaccines may combine a weakened cold virus with DNA from the COVID-19 virus. This type of vaccine is called a viral vector vaccine.



A new vaccine technology is used in some COVID-19 vaccines. Instead of using weakened or dead viruses to train the body to fight COVID-19, these vaccines use mRNA, or messenger RNA.

The mRNA in the vaccine enters the body's cells and tells them to make a protein found on the virus. The immune system learns to recognize this protein so it can destroy the COVID-19 virus if it enters the body. This prevents future illness.

Considerations

There is good evidence that COVID-19 vaccines will prevent the severe complications of COVID-19.

When you have COVID-19, you may be contagious. This means that you may pass the disease to others around you. Getting vaccinated means that if the virus enters your body, you are less likely to get sick and be coughing and sneezing around others. This helps protect those around you from getting sick.

When most people in a community get vaccinated, it also helps protect those who cannot receive the vaccine.

The body needs a little time after vaccination to build up its defense against COVID-19. If the live virus enters your nose or mouth too soon after vaccination, there might not be enough protection built up yet, and you might get sick.

Even if your body is ready to defend you, viruses in your mouth and nose could spread to other people without your knowledge when you don't feel sick. This can happen when you talk, sing, sneeze, cough or even breathe. Judging by our experience with other vaccines, this is unlikely after vaccination. But until the studies prove it for COVID-19, it is possible that you could make people around you sick after you are immune.



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Vaccinated people can gather without masks or social distancing two weeks after receiving the final dose. For complete guidance on the restrictions after vaccination, visit [CDC.gov](https://www.cdc.gov).

Until everyone has had the opportunity to receive the vaccine and develop an immune response, continue practicing good habits in public to protect others. Good habits like proper hand washing, social distancing, avoiding crowds and proper mask use can help to keep everyone safe. These practices work for COVID-19 and all other contagious diseases.



The vaccine might be given over the course of multiple visits. It's important that you return for the second dose. If you do not return, the vaccine may be less effective for you and others.

Getting vaccinated against COVID-19 helps in many ways:

1. It helps to prevent you from getting COVID-19.
2. Although vaccines don't work 100% of the time, if you get sick, the illness will likely be mild.
3. The vaccine may help protect you from infecting family members, friends and coworkers.
4. The more people who get vaccinated, the sooner we can put an end to the pandemic.

Side Effects

Like any vaccine, the COVID-19 vaccines can have side effects. Some people have side effects, and others don't.

Possible side effects of the vaccine are often mild. Typical side effects include:

- Chills or fever.
- Headache or body aches.
- Swelling, pain or redness near the injection site.
- Tiredness or feeling unwell.



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Side effects are a common response of the immune system to the vaccine. Developing side effects does not mean that you are sick with COVID-19. The vaccine cannot make you sick.

In very rare cases, a person could develop a serious allergic reaction to the vaccine. Be sure to tell your health care provider about any allergic reactions you have had to food, medications or other vaccines before getting the COVID vaccine. If you are allergic to any ingredient in the COVID-19 vaccine, your health care provider may advise you not to get vaccinated.

If you develop an allergic reaction to the first dose of a vaccine, you should not receive a second dose. Seek medical care if you develop an allergic reaction after the first dose.

Signs of serious allergic reactions, called anaphylaxis, include:

- Trouble breathing.
- Feeling dizzy, weak or like your heart is racing.
- A swollen face or throat.
- Skin rash or itchy red bumps on your skin, called hives.

Before getting the vaccine, tell your health care provider about any medical conditions or allergies you have. Tell them if you:

- Are pregnant, breastfeeding or planning to become pregnant.
- Have a bleeding disorder or are taking blood thinners.
- Have a weakened immune system.
- Have a fever.



Bring a list of any medications you are taking and show it to the provider.

Before getting the vaccine, tell your health care provider if you have received another COVID-19 vaccine or have been treated for COVID-19 within the past 90 days. Treatments such as convalescent plasma and monoclonal antibodies could possibly make the vaccine less effective.

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The benefit of being vaccinated against COVID-19 far exceeds the risk of immediate side effects, according to current studies. Talk to your health care provider before getting the vaccine to make sure it is safe for you. They can answer any questions you have about the vaccine and its potential side effects.

Myths and Misconceptions

Myth: The COVID vaccines are not safe.

The Food and Drug Administration (FDA) required rigorous testing in clinical trials to ensure the safety of the vaccines before approving them for emergency public use. While we don't know whether COVID vaccines could have side effects years from now, vaccines in general have been used safely for more than 200 years.

Myth: The COVID vaccines might change my DNA.

Your genes, or DNA, are kept in an enclosed bag-like space called the nucleus inside each of your cells. The mRNA vaccines never enter the nucleus, so they cannot affect your DNA.

Unlike mRNA vaccines, viral vector vaccines rely on virus DNA to trigger an immune response. The virus DNA can enter the nucleus. But it will not change your DNA because it lacks the necessary parts to do that.

Myth: The vaccines use microchips or nanotransducers to track where you go or control your mind.

The COVID vaccines do not use microchips or nanotransducers. This type of technology may have applications for future use in healthcare, but it has not been used in the COVID-19 vaccines. The vaccines cannot track your location, affect your thinking or gather data about you.

Myth: There's no reason to get the vaccine if you are young and healthy.

Anyone can develop long-term complications, such as heart damage or fatigue, from COVID-19. Besides protecting you from complications, getting vaccinated may also protect the community at large by reducing the spread of the virus.



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Myth: The COVID-19 vaccines have severe side effects.

The side effects are often mild and last only a few days. These side effects may be an indication that your immune system is responding to the vaccine.

Summary

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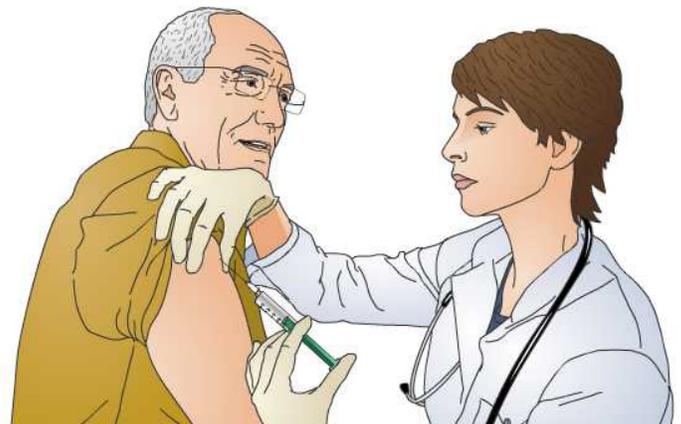
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