

REGIONE DEL VENETO



Dipartimento di Prevenzione
SPISAL



Covid19

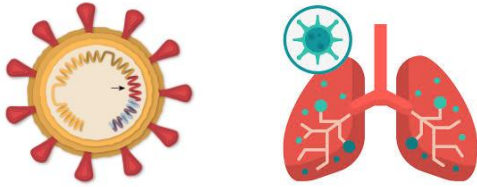
Vaccination

Questions & Answers

INGLESE

What is the Anti-Covid19 vaccine used for?

It is a vaccine that serves to prevent COVID-19 disease in subjects aged 12 years or older. The vaccine does not contain the virus and it cannot cause disease.



Can the vaccine cause the disease?

NO, because these vaccines do not use active viruses. With vaccination, the body receives information that helps it fight the virus. The mRNA of the vaccine (the molecule that carries the message) naturally degrades after a few days in the person receiving it. The vaccine therefore does not contain the virus, but only a small part of it.

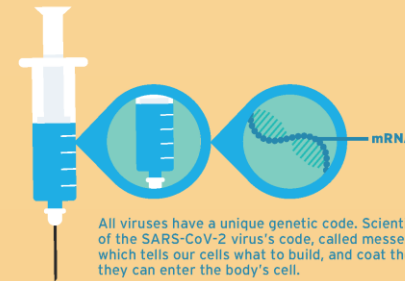
What is the mechanism of action of COVID-19 vaccines?

The SARS-CoV-2 coronavirus, responsible for COVID-19, uses a protein (called 'Spike') which protrudes from its envelope to enter the human cells, where it then reproduces. The vaccines currently available have been developed to induce an immune response capable of blocking the Spike protein, thus preventing the virus from infecting cells.

These vaccines introduce into some cells of the human body not the SARS-CoV-2 coronavirus, but the genetic information necessary to produce the Spike protein for a short time. The presence of this foreign protein will stimulate the immune system to react against it by producing antibodies that will prevent the virus from entering and infecting cells through binding to the Spike protein. The presence of the foreign Spike protein will also activate T lymphocytes driving antibody production and killing virus-infected cells.

How mRNA vaccines work

Every virus is different.
The virus that causes COVID-19 is called SARS-CoV-2.



All viruses have a unique genetic code. Scientists take part of the SARS-CoV-2 virus's code, called messenger RNA (mRNA), which tells our cells what to build, and coat them in a lipid so they can enter the body's cell.

This is what is included in the vaccine to help build an immune response.



CREATE

The mRNA tells the cells to make a specific part of the SARS-CoV-2 virus: the spike protein.



LEARN

The immune system then produces antibodies and activates T-cells to destroy the spike proteins.



PROTECT

If you are exposed to the virus in the future, your immune system will quickly recognize the spike protein and has the antibodies and T-cells ready to begin destroying the virus.

The Benefit of Getting Vaccinated

The virus that causes COVID-19 replicates quickly. Without the vaccine, your body has to identify the virus, learn how to fight it and carry out an immune response. In the meantime, the virus can replicate to a level beyond what your immune system can handle – which means you feel sick. With the vaccine, your body can more quickly identify the virus and skip straight to starting its immune response.

mRNA technology isn't new.

mRNA vaccines are a product of decades of study on RNA therapies and treatment by medical scientists. mRNA therapies are being used to develop personalized cancer treatments, as well as vaccines for infectious diseases such as Zika virus. Researchers are also exploring whether mRNA treatments can be used as protein-replacement therapies for rare conditions such as the blood-clotting disorder haemophilia.

What is the point of getting vaccinated, if in spite of the vaccine it infects me the same?

The vaccine, even in double dose, does not completely defend against the virus. whose infectious capacity could be made more difficult to deal with in the case of more aggressive variants.

This does not mean that the vaccine is not effective. Studies show that those who received the vaccine are better protected from contagion, and if they become infected they do not develop a severe form of the disease, avoiding complications and hospitalizations.

Are Covid19 vaccines Safe?

YES, Vaccines are authorized only after a careful evaluation of the safety profile based on the studies carried out in the experimental phase. In any case, the security profile is continuously monitored even after authorization. The Italian Medicines Agency publishes periodic reports on the pharmacovigilance of Covid-19 vaccines.

Was the clinical trial shortened to have these vaccines available quickly?

The studies that led to the development of COVID-19 vaccines did not skip any of the phases of verification of the efficacy and safety required for the development of a medicine; on the contrary, these studies saw the participation of a very large number of volunteers, about ten times higher than that of similar studies for the development of other vaccines.

The rapid development and approval is due to new technologies, to the huge resources made available very quickly and to a new evaluation process by the regulatory agencies, which evaluated the results as they were obtained and not when all the studies were completed - as was previously the case.

Can COVID-19 vaccines alter my DNA?

No, the COVID-19 vaccine uses a fragment of messenger RNA (mRNA) to instruct your body to make an immune response against COVID-19. There is a crucial difference between mRNA and DNA.

DNA, which makes up our genetic code, is larger, double stranded and very long. The mRNA is a single stranded copy of a small part of the DNA, which is often released to send instructions to other parts of the cell. DNA is stored in the protected centre of our cells – the nucleus. The mRNA is broken down quickly by the body. It never enters the nucleus, and cannot affect or combine with our DNA in any way to change our genetic code.

What are the most frequent adverse reactions after the vaccine?

The most frequently observed adverse reactions are local reactions at the injection site (**pain, swelling, redness**), fatigue, headache and muscle or joint pain. **Fever, nausea or, more rarely, swelling of the lymph nodes may also occur.** These are reactions that are not serious, of mild or moderate severity which, although annoying, resolve in a few hours or a few days.

As with all drugs, allergic reactions up to anaphylactic shock are also possible, albeit very rare. For this reason, vaccinations are carried out in safe contexts by trained personnel and there is an observation period of at least 15 minutes after vaccination.

Another aspect that is taken into account is that, following the injection, anxiety reactions can also occur with vaso-vagal phenomena ranging from the sensation of being about to faint up to actual fainting, for which the staff will be careful to avoid falling injuries.

Can people who have already had COVID-19 be vaccinated?

Yes, it is possible to administer a single dose of COVID-19 vaccine to people who have already had SARS-CoV-2 infection, both symptomatically and asymptotically, as long as vaccination is preferably performed within 6 months from infection and in any case no later than 12 months after recovery.

Does COVID-19 vaccination affect fertility?

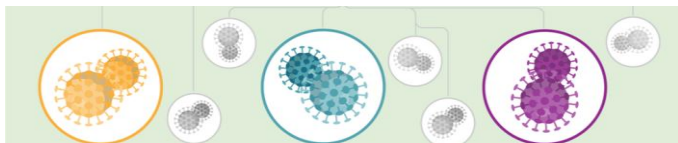
No, the COVID-19 vaccination does not affect fertility in any way. Vaccination does not cause the formation of antibodies against the placenta, but triggers a very specific defense reaction of the body against the coronavirus, which has no influence on fertility.

Can I get the vaccine if I am sick?

If you are unwell on the day of your appointment, you will need to reschedule it. You can be vaccinated once you are well again. If you have symptoms of COVID-19, get a test and stay at home until you get your results. You can be vaccinated once you have a negative test.

How long does the protection induced by such vaccines last?

The duration of protection has not yet been defined with certainty, because so far the observation period has necessarily been a few months. However, data on other types of coronaviruses suggest that it should be at least 9-12 months.



If I am pregnant or planning to become pregnant, can I get a Covid-19 vaccine?

Yes, COVID-19 vaccination is recommended for all people 12 years and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future. You might want to have a conversation with your healthcare provider about COVID-19 vaccination.

Should I wear a face mask and practice social distancing even if I am vaccinated against COVID-19?

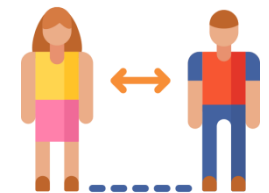
Yes, vaccinated people should continue wearing a face mask when visiting confined public spaces or using public transport in areas with community transmission of COVID-19. The vaccine is very effective in preventing severe disease and death but vaccinated people may still get infected and transmit the infection. Wearing a face mask decreases the risk of this happening.



Wear a face mask
Cover your nose
and mouth



Wash your
hands



Practice social
distancing