Addressing COVID-19 Vaccine Myths

Material for general public and healthcare workers

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COVID-19 vaccines and safety

Vaccine safety is always a top priority, and this is no different for the COVID-19 vaccines being developed. All vaccines go through three different trial phases before they are approved for use in the population. The trial phases aim to ensure the safety and ability of the vaccine to protect against the disease (efficacy) as well as other questions about it, including how many doses are needed and when it should be given.

The vaccines that are being developed against COVID-19 are following these same phases, but in some cases the phases might overlap or be sped up when enough data is available. Once COVID-19 vaccines are approved for use in the general population, monitoring for safety continues. This monitoring is a normal part of immunization programs and is done for all vaccines.

The timeline for COVID-19 vaccine trials

It's true that the COVID-19 vaccines have been developed more quickly than any other vaccine, but each COVID-19 vaccine candidate is going through the same clinical trials, whose focus is on safety efficacy, that all other vaccines have. Since COVID-19 has affected the entire world, there have been global collaboration and increased government funding unlike ever before that have allowed the COVID-19 vaccines to develop more quickly than previously experienced.

Additionally, the virus that causes COVID-19 is not the first coronavirus to cause an epidemic. Many scientists have been working on coronavirus vaccines since the SARS and MERS epidemics, allowing for a head start in the vaccine development process. What´s more, the technology to use mRNA for vaccines has been in development for over a decade.

mRNA technology and DNA

While the COVID-19 vaccines are the first mRNA vaccines to be approved, they aren’t the first ones to be studied in humans. mRNA vaccines provide “instructions” for our cells to make the protein that is found on the surface of the virus that causes COVID-19. The cells that create that protein won’t make us sick, but help our bodies build an immune response similar to what happens in natural infections. The mRNA never enters the cell’s nucleus, where our DNA is

located, so the vaccine doesn't affect our DNA. The mRNA technology also has other medical uses. For example, it´s routinely used in cancer treatments.

Pauses in vaccine trials

Safety is a main focus for vaccine clinical trials. When an unexplained medical event—which may or may not be related to the vaccine being evaluated—happens to someone participating in a trial, it is normal to investigate. Temporarily pausing vaccine clinical trials is not unusual

while researchers gather more information. This shows us that the manufacturers and researchers are doing everything in their power to ensure a safe and effective vaccine.

Vaccines and the immune system

The COVID-19 vaccine will help your immune system to identify and fight the virus. The vaccine does not weaken nor overwhelm your body and will not make you sick. Some people can experience mild side effects, such as soreness at the injection site, muscle aches, or a fever, but they go away quickly. These side effects are a result of your immune system responding to the vaccine and are not a sign that you are sick with COVID-19.

Continuing public health measures after vaccination

We will need to continue to wear masks, practice physical distancing, and wash our hands frequently, even after COVID-19 vaccines have been approved and are in use. It will take a long time to produce enough doses of the vaccines and distribute them widely enough to stop the spread of the virus. Even when vaccines are widely available, it is estimated that over two-thirds of the population will need to be vaccinated before herd immunity is reached to stop the spread of the disease.

Availability of vaccines for everyone

As COVID-19 vaccines are initially introduced, demand will be very high and supply will be low. Because of this, the vaccines will be introduced in stages, and countries must determine who in their population will be among the first to be vaccinated. Even when vaccination starts, physical distancing, wearing masks, and practicing good hygiene will continue to be important to stop the spread of the virus and help to save lives.

The need for vaccines: Natural immunity vs immunity from vaccines

Effective COVID-19 vaccines are going to be one of the crucial ways of protecting people from disease and ensuring societies can remain open. Vaccines build immunity without the damaging effects that COVID-19 can have. Allowing the disease to spread until herd immunity is reached could cause millions of deaths and even more people living with the long-term effects of the virus.

COVID-19 vaccines for people who have had COVID-19

There is still much we don't know about COVID-19. The immunity someone builds after having COVID-19 can vary from person to person and there isn't enough data right now to know how strong this natural immunity is or how long it lasts. Since COVID-19 can have severe health risks, and there is the possibility of re-infection, the general recommendation is to get the vaccine when it's available, upon consultation with your health care provider.

Vaccines and claims of microchips

Vaccines are solely used to protect people from diseases that can make them sick or cause death. Microchips have never been used in vaccines and are not part of COVID-19 vaccines.

Vaccines and infertility

Study phases of the vaccines that have already received Emergency Use Authorizations have shown that receiving COVID-19 does not have any effect on fertility. In fact, some participants in the clinical studies got pregnant during the studies. No vaccines suspected of impacting a person´s ability to conceive have ever been or will be approved.

For more information please visit:

Pan American Health Organization: COVID-19 vaccines
World Health Organization: COVID-19 vaccines

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