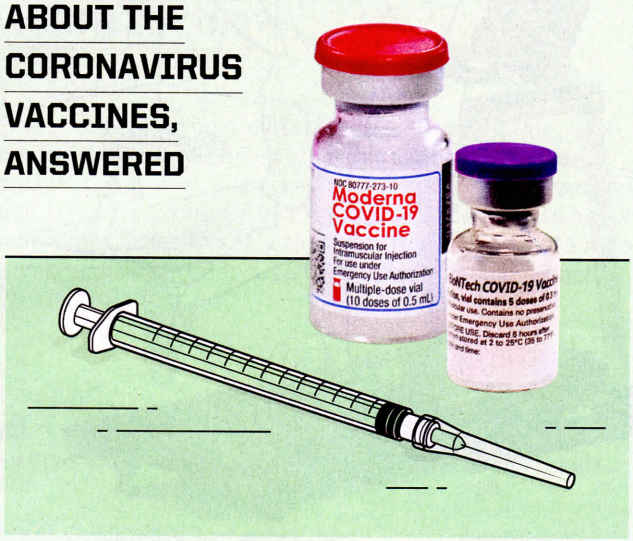
HEALTH UPDATE

YOUR QUESTIONS ABOUT THE CORONAVIRUS VACCINES, ANSWERED



IN A SHORT PERIOD of time—less than one year—scientists managed to design, create, and test several potential vaccines for SARS-CoV-2, the coronavirus that causes COVID-19. Americans began receiving the first approved vaccines, from Pfizer and BioNTech and another from Moderna, in December of 2020, with healthcare workers among the first in line. Today, vaccine distribution continues—you may even have gotten the vaccine already or know someone who has. But you also may still have questions about how these vaccines will affect you and your loved ones. Here, CR consulted with experts and combed through government guidance to answer some of the most common questions.

What does it mean for the FDA to provide emergency use authorization?

Because of the public health crisis caused by the ongoing pandemic, the Food and Drug Administration is empowered to provide expedited permission to distribute a vaccine before fully approving that vaccine, provided it meets certain standards for safety and efficacy. This constitutes an emergency use authorization, designed to more quickly and easily enable use of a vaccine. But it's still a rigorous process that balances the potential risks vs. benefits: Before the first two vaccines were authorized this way, the manufacturers needed to provide at least two months of safety data on people who received the vaccine, which the FDA then reviewed.

Where will I be able to get a vaccine?

Vaccines will be distributed at a wide variety of locations, including hospitals, long-term-care facilities, mobile and temporary clinics, doctors' offices, and pharmacies, according to the Centers for Disease Control and Prevention.

Are the coronavirus vaccines free?

Yes. The U.S. government will pay for vaccines given to Americans, according to the CDC. Providers may charge a fee for administering the vaccine, but the government has mandated that insurers (or the government, in the case of uninsured individuals) cover this fee, so people should not have any out-of-pocket expenses for vaccination.

How long does protection take to kick in?

The Pfizer and Moderna vaccines, like most of the other vaccines that have completed or are in the last stage of trials before being submitted to the FDA for approval, require two doses—an initial shot and a booster, usually several weeks later. Generally with a two-dose vaccine, it takes about two weeks from the second dose for a vaccine's protection to fully kick in, according to Natalie Dean, PhD, an assistant professor of biostatistics specializing in infectious disease and vaccine development at the University of Florida.

But though both doses are necessary, the FDA's analysis of the Pfizer vaccine indicates that people appear to be somewhat less likely to get COVID-19 within two weeks of receiving the first dose. It's unclear how long protection from that first dose may last. And the second dose is still required for full protection, to ensure a more durable immune response.

How effective are the COVID-19 vaccines?

Very effective. In vaccine trials, roughly an equal number of participants receive the real vaccine or a placebo. Pfizer calculated that its vaccine was approximately 95 percent effective, for example, after observing that 172 out of the 181 COVID-19 cases that occurred in trial participants were in the placebo group—demonstrating that people who received the vaccine appear to be generally well-protected. It's possible that the degree of effectiveness in a real-world setting could be lower or higher, however.

If I've had COVID-19, should I still get vaccinated?

Researchers have a range of estimates on how long people may be protected from reinfection after recovering from COVID-19, varying from months to years. But because reinfection is possible, the CDC recommends that people who have recovered from COVID-19 get vaccinated.

Some of the vaccine trials included people who recovered from COVID-19, according to Kathleen Neuzil, MD, director of the Center for Vaccine Development and Global Health at the University of Maryland School of Medicine, and it appeared to be safe for these people to get the vaccine. Even if recovered patients have some natural immunity, the vaccine could provide longer-term benefit, she says. The immune system's natural response to a SARS-CoV-2 infection is varied, and in some cases, protection may not last very long.

Will these vaccines put an end to the pandemic?

Researchers are hopeful that vaccination campaigns will end the pandemic once there is sufficient vaccine supply and enough people get vaccinated. However, some experts caution that the whole world will need to have access to these vaccines for the disease threat to be fully eliminated. If the disease is still spreading somewhere, it could reemerge, especially if people's immunity wanes.

PHOTOS: GETTY IMAGES

Have a question you don't see here? Go to CR.org/vaccine0321 for even more answers from our experts.