



VACCINES



HOW DO THEY WORK?

A vaccine works by training the immune system to recognize and combat pathogens, either viruses or bacteria. To do this, certain molecules from the pathogen must be introduced into the body to trigger an immune response. These molecules are called antigens. By injecting the antigens into the body, the immune system safely learns how to recognize and fight hostile invaders. If they appear again, the immune system will recognize the antigens and attack before the pathogen spreads.

WHY ARE VACCINES IMPORTANT?

Vaccines have reduced and, in some cases, eliminated many diseases that killed or severely disabled people just a few generations ago. For example, the smallpox vaccination eradicated that disease worldwide. If we continue vaccinating thoroughly, we can help eradicate certain diseases for future generations.

VACCINATION IS SAFE

Developing a vaccine takes multiple stages and each stage of the process is carefully reviewed. When a vaccine is administered to a patient, there can be some initial discomfort, especially at the site of the injection. But, this is minimal compared to any health problems associated with a disease. The disease-prevention benefits of getting vaccines are much greater than the possible side effects.

WHERE TO GET VACCINES

Getting vaccinated is convenient. You can go to your doctor's office but many vaccines are available at local pharmacies, health centers, health departments, and travel clinics.

COVID-19 AND VACCINATION

Since the outbreak of COVID-19, researchers have been rushing to develop an effective vaccine. Work began in January with deciphering of the SARS-COV-2 genome. Vaccine development goes through many trials and clinical tests before they are deemed effective. Of those in trail some will fail, and others can end without clear results. But a few trails may succeed in stimulating the immune system to produce effective antibodies against the virus.

To get more information about vaccines visit [cdc.gov](https://www.cdc.gov) and [hhs.gov](https://www.hhs.gov)