UNDERSTANDING VACCINATIONS

Vaccines teach our immune system to produce an immune response to an antigen (bacteria or virus) by safely introducing the germ to our immune system.

Our immune system is our defense against disease. When disease-causing bacteria or viruses (antigens) enter our body, our immune system responds by manufacturing various antibodies, which work to destroy the germs, and remember them to prevent future infections.

Vaccine Development

The development and FDA approval of new drugs in the United States typically takes between 10-15 years. However, alternate pathways allow for expedited reviews, like 'Emergency Use Authorization' (EUA).

This expedited approval process has led to an increase in hesitance to be vaccinated by some. Those who are hesitant are concerned that the vaccines that are approved under the EUA have been rushed.

There are standards in place to ensure safety and efficacy for fast-tracking medications. These medications and vaccines must meet strict clinical and statutory criteria to be considered for EUA.

To qualify for EUA, the vaccines must be tested in at least 30,000 people in clinical trials.

DNA Alteration Rumors

Rumors are circulating that the COVID-19 vaccines will alter a person's DNA. The first COVID-19 vaccines to reach the market are messenger RNA (mRNA) vaccines. According to the CDC, mRNA vaccines work by instructing cells in the body how to make a protein that triggers an immune response.

Injecting mRNA into your body will not interact or do anything to the DNA of your cells. Human cells break down and get rid of the mRNA soon after they have used the instructions.

Building Immunity

It typically takes several weeks after vaccination for the body to build protection (immunity) against the virus that causes COVID-19. That means it is possible a person could still get COVID-19 just after vaccination.

Return to "Normal"

Life does not necessarily return to normal once you are vaccinated. Vaccines plus masks allow us to start expanding our bubble among other people who have gotten the vaccine and wear masks. According to Dr. Sanjay Gupta, "Vaccines are part of the prevention strategy. Wearing masks, hand-washing, and social distancing are part of the comprehensive solution to this global pandemic impacting millions of lives."

It is important to note that as the virus mutates, new variants of the COVID-19 virus are arriving that may lead to a reduction in vaccine efficacy.

Knowledge is Power

Vigilance and knowledge are the order of the day. Stay informed with information from reputable health organizations. Make sure to check your local hospital's resource pages for local information on COVID vaccines.

Resources

ConnectCare3 suggests the following resources:

American Academy of Pediatrics (AAP)

- https://www.aap.org/en-us/Pages/Default.aspx

The Center for Disease Control and Prevention (CDC)

- https://www.cdc.gov/coronavirus/2019-ncov/vaccines/

Childrens Hospital of Philadelphia (CHOP)

- https://www.chop.edu/centers-programs/vaccine-education-center

Johns Hopkins

- https://www.hopkinsmedicine.org/coronavirus/covid-19-vaccine/

Mayo Clinic

- https://www.mayoclinic.org/

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ScienceDirect. "COVID-19: The first documented coronavirus pandemic in history"
Accessed at https://www.sciencedirect.com/science/article/pii/S2319417020300445
Baylor College of Medicine. "SARS and MERS."
Accessed at https://www.bcm.edu/departments/molecular-virology-and-microbiology/emerging-infections-and-biodefense/specific-agents/sars-mers
Baylor College of Medicine. "Coronavirus Vaccines."
Accessed at https://www.bcm.edu/departments/pediatrics/sections-divisions-centers/tropical-medicine/research/vaccine-development/coronavirus-vaccines
UChicagoMedicine. "What to know about the COVID-19 vaccine."
Accessed at https://www.uchicagomedicine.org/forefront/coronavirus-disease-covid-19/what-to-know-about-the-covid-19-vaccine

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