Vaccines: Facts You Need to Know

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Vaccines are a proven, effective means of controlling life-threatening illnesses around the globe. They boost your body’s natural immune response to diseases caused by viruses and bacteria. Vaccine programs throughout the world have led to improved overall health of our population by shrinking the spread of disease, permanent and temporary disability and infant mortality.

Although vaccines are proven to be safe and effective based on sound scientific evidence, several myths about their effectiveness and risks have continued for decades. While some people need to forgo vaccinations due to potential allergic reactions, others refuse them for themselves or their children for several reasons, mainly a mistrust of the science.

As we enter flu season, review some current facts about vaccines in the U.S.

✓ FACT: Vaccines undergo five phases of research and development that can take up to 15 years before approval by the FDA for public use. Note: During the COVID-19 pandemic, the U.S. government declared that circumstances existed to justify the emergency development and use of vaccines to prevent contagion.

✓ FACT: Billions of vaccine doses have been safely administered in the U.S. for more than 50 years. To date, more than 365 million doses of COVID-19 vaccines have been administered in the U.S. and the number is growing.

✓ FACT: Worldwide, vaccines prevent an estimated 2.5 million deaths among children younger than age five each year. Routine vaccinations in children are recommended to prevent diseases, including chickenpox, influenza (flu), measles, polio, and others.

✓ FACT: Pregnant women are advised to get vaccinated against flu and whooping cough (pertussis) during each pregnancy to protect both mother and baby. Pregnant women are at an increased risk for severe illness from COVID-19. Some women may need other vaccines before, during or after they become pregnant. Check with your health care provider.

✓ FACT: Older adults and those with chronic health conditions have a greater risk of complications from influenza and other vaccine-preventable diseases. Several vaccines are advised for those age 65-plus and younger adults with diabetes, heart disease, lung disease or other chronic conditions that put them at greater risk. Adults who have heart disease are six times more likely to have a heart attack within seven days of flu infection.

✓ FACT: The best way to prevent flu and potentially serious flu complications is to get an annual vaccination. The CDC recommends annual flu vaccination for everyone age six months and older.

✓ FACT: Getting a COVID-19 vaccine is the best protection against contagion. Studies suggest that if you have had COVID-19 and are not vaccinated against it, your risk of getting reinfected is twice as likely than for those who were infected and got vaccinated.

✓ FACT: All three COVID-19 vaccines in the U.S. underwent rigorous clinical trials, testing on 118,000 people. Side effects, including pain at the injection site, headache, fatigue and nausea, were mild to moderate and resolved within a few days.


The COVID-19 pandemic has caused significant illness and loss of life for the world’s population. Despite the approval of vaccines to prevent COVID-19 illness, myths continue circulating about the production, effectiveness and risks of this vaccine.

Learn more about vaccines at historyofvaccines.org.