

Alphas are at higher risk for diseases that may be prevented with a vaccine.

### Vaccines Past and Present

- ✓ Getting vaccinated saves lives.
- ✓ The first successful vaccine was developed in 1796 to prevent smallpox. Due to the development of this vaccine, smallpox has been eradicated. The last known natural case of smallpox was in 1977.
- ✓ Vaccines typically take 10 to 15 years of research and clinical trials before they receive FDA approval.
- ✓ The COVID-19 vaccine was approved in a much shorter timeline. However, the development of the COVID-19 vaccine actually built on decades of research.
- ✓ The new technique used in the COVID-19 vaccine is messenger RNA (mRNA). Messenger RNA does not affect our genes. The mRNA in the vaccine is not produced by the cell nucleus, where DNA is kept.

### How Vaccines Work

- ✓ Vaccines imitate an infection. Most vaccines imitate viral infections. A smaller number of vaccines imitate bacterial infections.
- ✓ In response to a vaccine, the immune system fights the infection that the vaccine imitated.
- ✓ It usually takes a few weeks for a vaccine to become fully effective. This is because it takes time for the immune system to build up the ability to effectively fight off a future infection from the virus or bacteria. Vaccination of a population also adds to an individual's protection from new infections.
- ✓ Some vaccines are recommended every year. These are vaccines for viruses that mutate often, such as the flu and COVID-19. Vaccines for these viruses are updated each year to be effective against the most frequently circulating strains of the virus.
- ✓ Individuals with lung disease are more likely to have poor outcomes if they get a respiratory viral illness. For this reason, healthcare providers typically recommend flu, COVID-19, and RSV vaccines for eligible individuals with lung disease.

### Possible Side Effects

- ✓ Any vaccine can cause side effects. Most are due to the immune system's appropriate reaction.
- ✓ Most side effects from vaccines are minor and stop within a few days. Common side effects include tiredness, headache, and low-grade fever.
- ✓ Serious side effects from vaccines are extremely rare. For example, for every 1 million doses of a vaccine, 1 person may have a severe reaction called anaphylaxis. Anaphylaxis usually occurs within minutes of receiving a vaccine, and is treatable.
- ✓ Vaccines are continually monitored for safety, even after they have been approved.
- ✓ Vaccine safety is monitored by the Food and Drug Administration (FDA) and the Centers for Disease Control and Prevention (CDC) through the following systems:
  - ❑ Vaccine Adverse Event Reporting System ([VAERS](#)). Anyone can report suspected vaccine reactions to VAERS.
  - ❑ Vaccine Safety Datalink ([VSD](#)). This system facilitates searching of vaccine-related data and ongoing safety monitoring.
  - ❑ The Clinical Immunization Safety Assessment ([CISA](#)) Project. This is a partnership that focuses on vaccine-related health risks.
- ✓ Individuals who have experienced a severe side effect from a vaccine can file a claim for compensation through the National Vaccine Injury Compensation Program ([NVICP](#)).
- ✓ There is no evidence that vaccines cause health conditions such as autism, asthma, or diabetes.

### Additional Information

- ✓ Evidence-based sources of information about vaccines include:
  - ❑ The Centers for Disease Control and Prevention (CDC) [vaccines website](#).
  - ❑ The World Health Organization [vaccines website](#).
- ✓ In addition, AlphaNet has developed information sheets that focus on pneumonia vaccines and seasonal respiratory vaccines. These information sheets are available [here](#).