Influenza Complications

Influenza-Related Complications Can Affect Everyone
Influenza is a serious infectious disease that can cause severe illness in people of all ages and backgrounds. An individual’s response to influenza is difficult to predict. Some people will experience mild symptoms, while in others the virus will take hold and cause serious infection. It is not possible to predict who will be affected; even healthy children and young adults can get very sick from the flu and spread it to others. Some healthy people die from it. Influenza complications that can affect anyone include:

- Pneumonia
- Bronchitis
- Sinus infections
- Ear infections
- Worsening of chronic medical conditions such as asthma, diabetes, and heart disease

Here are some key facts about how influenza affects different populations:

- **Children and infants:**
  - **Under 5 years old:** Each year, 20,000 children younger than five are hospitalized with influenza complications.  
  - **Under 2 years old:** Influenza complications are most common in this young population. Infants and toddlers are hospitalized due to influenza at rates similar to those 65 and older – more than any other age group.  
  - **Younger than 6 months:** Young infants have the highest rates and risk of complications of all children. Because vaccination is not approved for children younger than 6 months, the best way to protect them is to vaccinate all household members and caregivers.

- **Adults 65 years of age and older:** Adults age 65 and older typically account for 90 percent of flu-related deaths and 60 percent of flu-related hospitalizations due to weakened immune systems, and a reduced ability to respond to the standard influenza vaccine. People age 65 and older may wish to ask their healthcare provider about a new high-dose vaccine that contains four times the amount of antigen to induce a higher immune response.

- **Pregnant women:** Influenza is more likely to cause severe illness in pregnant women than in women who are not pregnant. Pregnant women with the flu are at increased risk of hospitalization and adverse pregnancy outcomes, including premature labor and delivery. Vaccination protects the mother from influenza and may also protect the baby before and after birth. However, during the 2010-11 influenza season, only 49 percent of pregnant women were immunized against influenza.

- **Asthma:** Influenza can cause inflammation in the lungs and airways, provoking an asthma attack and worsening asthma symptoms in those who have this respiratory illness. People with asthma are also more likely to develop pneumonia and are at increased risk of other acute respiratory diseases.

- **Diabetes:** Patients with diabetes are at high risk of severe influenza and its complications. The virus may interfere with glucose management, putting people with diabetes, especially people with type 1 diabetes, at an increased risk of diabetic coma.
• **Heart disease:** Influenza can trigger a heart attack in patients with heart disease and up to half of unexpected influenza deaths are due to heart disease. Influenza vaccination can reduce the risk of heart attacks and offer cardio-protective benefits in cardiac patients.

• **Compromised immune system:** Cancer patients and people with HIV/AIDS are among those with compromised immune systems who are at a greater risk of developing serious flu-related complications, such as pneumonia, which can result in hospitalization and death.

• **Healthcare workers:** Healthcare workers infected with influenza can transmit the virus to patients in their care, leading to serious morbidity and mortality. Hospital-acquired flu outbreaks can have a death rate of 16 percent with an average additional cost of $7,500 per case. The CDC and most major medical groups recommend that all healthcare workers be vaccinated against influenza. See the “Models for Success” fact sheet for more information on successful healthcare worker immunization programs.

**References**


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