

# Risk Factors/Complications of Influenza



## Children who are most at risk for influenza infection and its complications

- Those with underlying chronic conditions that increase the risk of developing complications:
  - Asthma or other chronic pulmonary diseases, such as cystic fibrosis
  - Hemodynamically significant cardiac disease
  - Immunosuppressive disorders or therapy; HIV infection
  - Sickle cell anemia and other hemoglobinopathies
  - Diseases that require long-term aspirin therapy
  - Chronic renal dysfunction
  - Chronic metabolic disease, including diabetes mellitus
  - Any condition that can compromise respiratory function or handling of secretions or can increase the risk of aspiration<sup>1</sup>
- Adolescent girls who are pregnant, considering pregnancy, or breastfeeding during the influenza season<sup>1</sup>
- Preschool children (infection can affect up to 40%) and school-aged children (can affect up to 30%)<sup>2</sup>
- Children younger than 5 years: most likely to be hospitalized in association with influenza infection and influenza-related illness; infection is the most common cause of visits to medical practices and emergency departments<sup>3,4</sup>

The vaccination of these high-risk individuals, as well as those who live with or care for them, is particularly important.

## Complications of influenza

- Lower respiratory tract disease, especially pneumonia, croup, wheezing, and bronchiolitis
- Ear or sinus infections and dehydration
- Worsening of chronic medical conditions, such as congestive heart failure, asthma, or diabetes<sup>5</sup>
- In neonates, sepsis-like syndrome, apnea, and lower respiratory disease<sup>6</sup>
- Neurologic complications, including febrile seizures and influenza-related encephalopathy
- Death

## References

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3. Thompson WW, Shay DK, Weintraub E, et al. Influenza-associated hospitalizations in the United States. *JAMA*. 2004;292:1333-1340.
4. Centers for Disease Control and Prevention. Prevention and control of seasonal influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009. *MMWR*. 2009;58(RR-8):1-52.
5. Centers for Disease Control and Prevention. Key facts about influenza (flu) and flu vaccine. [www.cdc.gov/flu/keyfacts.htm](http://www.cdc.gov/flu/keyfacts.htm). Accessed February 17, 2012.
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