

INFLUENZA IN ADULTS 65+: THE FACTS

Influenza is a highly infectious viral illness. It can cause mild to severe illness, and at times can lead to death.¹

DISEASE PRESENTATION IN OLDER ADULTS

The clinical presentation of influenza ranges from asymptomatic infection or a self-limiting upper respiratory tract infection, to a severe illness with potentially fatal complications.¹

In older adults, influenza sometimes presents differently than it does in other age groups:



Older adults may experience malaise, instead of the sudden onset of high fever typical in children and younger adults.²



Stomach pain, diarrhea, and nausea are more frequent symptoms in older adults than in other age groups.²



Runny nose, sore throat, and nasal congestion are all less frequent symptoms in older adults than in other age groups.²

Adults age 65 years and older are at greater risk of severe complications from influenza, due both to their increased likelihood of having chronic conditions and to the decline of their immune systems with aging.²

AN AGING IMMUNE SYSTEM

Immunosenescence is the biological aging process associated with progressive decline in systemic immunity. This gradual deterioration of the immune system, brought on by natural aging, can cause increased susceptibility to common infectious diseases, including influenza, among older adults.^{2,3}

Additionally, inflamm-aging, a chronic progressive increase in the proinflammatory status of the older adult, contributes to all aging-related diseases and renders older adults more vulnerable to complications as a result of infection with influenza.⁴

SERIOUS COMPLICATIONS

Complications from influenza can lead to life-threatening conditions in older adults. Serious complications include:¹

- Pneumonia
- Myocarditis, encephalitis, myositis, or rhabdomyolysis
- Multi-organ failure (e.g., respiratory and kidney failure)
- Respiratory tract infection leading to an extreme inflammatory response and sepsis

ADULTS AGE 65+ YEARS AND OLDER ARE DISPROPORTIONATELY AFFECTED BY THE FLU



Older adults account for more than 90% of annual flu-related deaths in the United States.⁵



In the 2016–2017 influenza season an estimated 423,000 older adults in the United States were hospitalized because of the flu, accounting for approximately 70% of flu-related hospitalizations.⁶



Older adults experience longer hospital stays than younger adults.^{7,8}

THOSE LIVING WITH CHRONIC DISEASES

Influenza is particularly dangerous for adults living with chronic diseases such as diabetes and heart and lung conditions.⁹ Many adults remain unaware that they have a chronic disease, and ensuring that they get vaccinated provides a layer of protection for these potentially vulnerable people.



Diabetes

Patients with diabetes are **three times more likely to be hospitalized for influenza** than other people.¹⁰



Heart conditions

Patients with heart disease, or those who had a stroke, have a **higher risk of serious complications from influenza**.¹¹



Lung conditions

Patients with chronic obstructive pulmonary disease (COPD), asthma, or other lung conditions also have a **higher risk of complications from influenza**. Since people with these conditions have sensitive airways, inflammation caused by the flu can make COPD symptoms worse, trigger asthma attacks, and easily lead to the development of pneumonia and other respiratory diseases.¹¹

POSSIBLE LONG-TERM IMPACT

Even when they recover from the flu, older adults may never fully regain their pre-influenza health, abilities, and lifestyle.¹² Moreover, for months after getting the flu, older adults may still be at increased risk of cardiovascular problems such as heart attack or stroke, due to lingering inflammation and an increased risk of blood clots associated with infections like influenza.²



1. Flu Symptoms & Complications. Centers for Disease Control and Prevention. <https://www.cdc.gov/flu/consumer/symptoms.htm> 2. Call to Action: Reinvigorating Influenza Prevention in U.S. Adults Age 65 Years and Older. National Foundation for Infectious Diseases. <http://www.nfid.org/flu-older-adults>. 3. Aw D, Silva AB, Palmer DB. Immunosenescence: emerging challenges for an ageing population. *Immunology*. 2007;120(4): 435–446. doi:10.1111/j.1365-2567.2007.02555.x. 4. Xia S, Zhang X, Zheng S, et al. An Update on Inflamm-Aging: Mechanisms, Prevention, and Treatment. *Journal of Immunology Research*. 2016;2016:8426874. doi:10.1155/2016/8426874. 5. Thompson WW, Shay DK, Weintraub E, et al. Mortality Associated with Influenza and Respiratory Syncytial Virus in the United States. *Journal of the American Medical Association*. 2003;289: 179–86. <https://www.ncbi.nlm.nih.gov/pubmed/12517228> 6. Estimated Influenza Illnesses, Medical visits, and Hospitalizations Averted by Vaccination in the United States. Centers for Disease Control and Prevention. <https://www.cdc.gov/flu/about/disease/2016-17.htm> 7. What You Should Know and Do this Flu Season If You Are 65 Years and Older. Centers for Disease Control and Prevention. <https://www.cdc.gov/flu/about/disease/65over.htm> 8. Thompson WW, Shay DK, Weintraub E, et al. Influenza-Associated Hospitalizations in the United States. *JAMA*. 2004;292(11):1333–1340. doi:10.1001/jama.292.11.1333 9. People at High Risk of Developing Flu-Related Complications. Centers for Disease Control and Prevention. https://www.cdc.gov/flu/about/disease/high_risk.htm 10. Protect Yourself from Influenza (The Flu): Information for People with Diabetes (either type 1 OR type 2) and Their Caregivers. Centers for Disease Control and Prevention. <https://www.cdc.gov/diabetes/managing/flu/index.html> 11. Adults With Chronic Conditions: Get Vaccinated. Centers for Disease Control and Prevention. <https://www.cdc.gov/features/vaccineschronicconditions/index.html> 12. Preventing Flu in Older Adults. *Medscape*. November 1, 2017. <https://www.medscape.com/viewarticle/887671>