

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.^{2,3}

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 include¹:

- > 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 about 70%–85% of annual flu-related deaths in the United States.⁵



50%–70% of influenza-related hospitalizations in the U.S. occur among people 65 years and older. For example, in 2017–18, approximately 65% of the estimated 710,000 flu-related hospitalizations were in adults 65 years and older.^{5,6}



Older adults experience longer hospital stays than younger adults.^{7,8} An extended hospital stay may have a negative impact on their quality of life following discharge.⁹

THOSE LIVING WITH CHRONIC DISEASES

Influenza is dangerous for adults living with chronic diseases such as diabetes and heart and lung conditions.¹⁰ 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 at a **higher risk of severe outcomes** than other people.^{11,12}



Heart conditions

Patients with heart disease, or those who had a stroke, have a **higher risk of serious complications from influenza, including myocarditis, inflammation of muscle tissues, heart attack, and multi-organ failure.**^{10,11,13}



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.^{11,12}

POSSIBLE LONG-TERM IMPACT

Even when they recover from the flu, older adults may never fully regain their pre-influenza health, abilities, and lifestyle.⁹ 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



Immunize.org

CSL Seqirus

1. Flu Symptoms & Complications. Centers for Disease Control and Prevention. Accessed August 2023. <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. Accessed August 2023. <https://www.nfid.org/resource/reinvigorating-influenza-prevention-in-us-adults-age-65-years-and-older/> 3. Dugan HL, Henry J, Wilson PC. Cellular Immunology 2020;348. doi:10.1016/j.cellimm.2019.103998 4. Xia S, Zhang X, Zheng S, et al. An update on inflamm-aging: mechanisms, prevention, and treatment. *J Immunol Research*. 2016;2016:8426874. doi:10.1155/2016/8426874 5. Flu & People 65 Years and Older. Centers for Disease Control and Prevention. Accessed August 2023. <https://www.cdc.gov/flu/highrisk/65over.htm> 6. Estimated Flu-Related Illnesses, Medical Visits, Hospitalizations, and Deaths in the United States — 2017–2018 Flu Season. Centers for Disease Control and Prevention. Accessed August 2023. <https://www.cdc.gov/flu/about/burden/2017-2018.htm> 7. Study Shows Hospitalization Rates and Risk of Death from Seasonal Flu Increase with Age Among People 65 Years and Older. Centers for Disease Control and Prevention. Accessed August 2023. <https://www.cdc.gov/flu/spotlights/2018-2019/hospitalization-rates-older.html> 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. Preventing Flu in Older Adults. Medscape. November 1, 2017. Accessed August 2023. <https://www.medscape.com/viewarticle/887671> 10. People at Higher Risk of Flu Complications. Centers for Disease Control and Prevention. Accessed August 2023. <https://www.cdc.gov/flu/highrisk/index.htm> 11. Gilca R, De Serres G, Boulianne N, et al. Risk factors for hospitalization and severe outcomes of 2009 pandemic H1N1 influenza in Quebec, Canada. *Influenza Other Respir Viruses*. 2011;5(4):247–255. doi:10.1111/j.1750-2659.2011.00204.x 12. Coleman BL, Fadel SA, Fitzpatrick T, Thomas S-M. Risk factors for serious outcomes associated with influenza illness in high- versus low- and middle-income countries: systematic literature review and meta-analysis. *Influenza Other Respir Viruses*. 2018;12(1):22–29. doi:10.1111/irv.12504 13. Chow EJ, Rolles MA, O'Halloran A, et al. Acute cardiovascular events associated with influenza in hospitalized adults: a cross-sectional study. *Ann Intern Med*. 2020;173(8):605–613. doi:10.7326/M20-1509