

## High-risk Groups for Influenza Complications

Many groups of people are at high risk of complications from influenza.

Persons considered to be at increased risk of complications from influenza include young children, pregnant women and postpartum women up to 2 weeks after delivery, older adults, people with certain chronic medical problems, people who live in nursing homes, and certain racial and ethnic minority groups. From 2009 to 2019, non-Hispanic Black people had the highest influenza hospitalization rates, followed by non-Hispanic American Indian or Alaska Native people, then Hispanic or Latino people, and then non-Hispanic White people.

### Prevention of Influenza in High-risk Groups

The best way to prevent influenza is by getting an influenza vaccination each year. While everyone aged 6 months or older is recommended to receive influenza vaccination, it is particularly important for people who are at increased risk of complications. Most influenza vaccines are produced using influenza viruses grown in eggs. Several kinds of influenza vaccines are available that protect against 4 influenza A and B virus strains (quadrivalent vaccines), including inactivated standard-dose vaccines for people aged 6 months or older, live-attenuated vaccines for healthy nonpregnant people aged 2 to 49 years, tissue cell culture-grown and recombinant vaccines not produced in eggs that are options for people with severe egg allergies, and high-dose and adjuvanted vaccines for people aged 65 years or older that may improve immune response and vaccine effectiveness. Because people in certain minority groups may be at increased risk of influenza or developing severe illness, influenza vaccination is especially important for these communities. Influenza vaccination is recommended by the end of October, but unvaccinated persons are encouraged to receive vaccination in November and December, and later if influenza viruses are circulating and vaccine is available.

### What Should People in High-risk Groups Do When Sick?

If respiratory illness symptoms begin during flu season, people who are at increased risk of complications should contact their primary care clinician right away. Fever is not always present with influenza in people of any age, especially in older adults and people with weakened immune systems.

Influenza can worsen underlying chronic medical conditions, such as chronic obstructive pulmonary disease, asthma, heart failure, and diabetes. A telemedicine appointment or an in-person visit can assess whether influenza or another cause might be responsible for a respiratory illness. A clinician can determine whether testing for influenza or other causes is needed.

### Antiviral Treatment of Influenza in High-risk Groups

Antiviral treatment of influenza can reduce risk of some complications, especially when started within 2 days of symptom onset.

#### Groups at Increased Risk for Influenza Complications

##### Age groups

- Children younger than 5 y, especially those younger than 2 y
- Adults aged 65 y and older

##### Chronic medical conditions

- Asthma
- Neurologic and neurodevelopmental conditions
- Blood disorders (such as sickle cell disease)
- Chronic lung disease (such as chronic obstructive pulmonary disease and cystic fibrosis)
- Endocrine disorders (such as diabetes)
- Heart disease (such as congenital heart disease, congestive heart failure, and coronary artery disease)
- Kidney diseases
- Liver disorders
- Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders)
- People who are obese with a body mass index of 40 or higher
- People younger than 19 y taking long-term aspirin- or salicylate-containing medications
- People with a weakened immune system due to disease (such as people with HIV or AIDS, or some cancers such as leukemia) or medications (such as those receiving chemotherapy or radiation treatment for cancer, or persons with chronic conditions requiring long-term corticosteroids or other drugs that suppress the immune system)
- People who have had a stroke

##### Other groups

- Pregnant women and postpartum women up to 2 wk after delivery
- People who live in nursing homes and other long-term care facilities

##### Racial and ethnic groups

- People from certain racial and ethnic minority groups are at increased risk for hospitalization with influenza, including non-Hispanic Black persons, Hispanic or Latino persons, and American Indian or Alaska Native persons.

Source: Centers for Disease Control and Prevention

Therefore, people in high-risk groups should contact their primary care clinician as soon as respiratory symptoms begin. If influenza is diagnosed and antiviral treatment is prescribed, patients should begin treatment as soon as possible.

#### FOR MORE INFORMATION

- About flu  
[www.cdc.gov/flu/about/index.html](http://www.cdc.gov/flu/about/index.html)
- Who needs a flu vaccine and when  
[www.cdc.gov/flu/prevent/vaccinations.htm](http://www.cdc.gov/flu/prevent/vaccinations.htm)
- Flu treatment  
[www.cdc.gov/flu/treatment/index.html](http://www.cdc.gov/flu/treatment/index.html)

**Author:** Timothy M. Uyeki, MD, MPH, MPP

**Published Online:** November 2, 2020. doi:10.1001/jama.2020.21869

**Author Affiliation:** Influenza Division, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia.

**Conflict of Interest Disclosures:** None reported.

**Disclaimer:** The views expressed are those of the author and do not necessarily represent the official policy of the Centers for Disease Control and Prevention.

The JAMA Patient Page is a public service of JAMA. The information and recommendations appearing on this page are appropriate in most instances, but they are not a substitute for medical diagnosis. For specific information concerning your personal medical condition, JAMA suggests that you consult your physician. This page may be photocopied noncommercially by physicians and other health care professionals to share with patients. To purchase bulk reprints, email [reprints@jamanetwork.com](mailto:reprints@jamanetwork.com).