

# I'm a Healthcare Worker..

I advise my colleagues to get the Influenza vaccine to protect ourselves, families and patients

Take initiative;  
get the flu vaccine



Protect yourself, family and patients



For more information: [www.moh.gov.sa/flu](http://www.moh.gov.sa/flu)



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Recommended by:



World Health  
Organization



## What is Influenza?

Seasonal Influenza is an acute viral infection that spreads easily from person to person, and can affect anybody in any age group. Its infection ranges from mild illness to severe illness and sometimes death.

Seasonal influenza viruses cause annual epidemics that peak during winter in temperate regions. Worldwide, these annual epidemics are estimated to result in about 3 to 5 million cases of severe illness, and about 250,000 to 500,000 deaths; especially within high-risk groups.

There are 3 types of seasonal influenza viruses (A, B and C), where type A influenza viruses are further classified into subtypes according to the combinations of various virus surface proteins. Currently, the most common subtypes are influenza A(H1N1) and A(H3N2) which were identified by the World Health Organization (WHO) as the most prevalent strains among humans.

Type C influenza cases occur much less frequent than the other two types. That is why only influenza A and B viruses are included in seasonal influenza vaccines.

## Signs and Symptoms of Influenza:

- Sudden onset of high fever (may not be present in all patients)
- Cough (usually dry)
- Sore throat and runny or blocked nose
- Headache
- Muscle and joint pain, severe malaise
- Fatigue
- Vomiting and diarrhea in some patients especially in children



Fever



Cough



Headache



Sore Throat



Diarrhea



Vomiting



Fatigue



Muscle pains

Most people recover from fever and other symptoms within a week without requiring medical attention, yet influenza can cause severe illness and in some cases death especially in people at high risk.

## Influenza Transmission:

Seasonal influenza spreads easily through:

1. Inhalation of infected droplets in the air from an infected person during coughing or sneezing.
2. Touching surfaces contaminated with the influenza virus and then touching your eyes, nose or mouth.

The period for transmission ranges from one day before the onset of symptoms to 5-7 days later. It can also continue for a longer period in children and immune deficient persons.

To prevent transmission, people should follow cough etiquette (cover their mouth and nose with a tissue when coughing), and wash their hands regularly.

## Is Influenza Serious?

Influenza is unpredictable and how severe it is can vary widely from one season to the next depending on many factors, including:

1. The type of circulating viruses
2. The number of people who have been given the vaccine (coverage ratio)
3. How well the influenza vaccine is matched to influenza viruses causing illness

## High Risk Groups of Influenza:

Influenza may affect all populations, but there are groups that are at higher risk of developing serious complications due to the flu and are thus recommended to take the flu vaccine each year by WHO.

1. Patients with chronic medical conditions:
  - Bronchial Asthma (even if condition is stable) and other chronic lung diseases
  - Chronic heart diseases (congenital heart diseases, heart failure and coronary arteries diseases)
  - Diabetes mellitus
  - Chronic renal diseases
  - Chronic liver diseases
  - Congenital or acquired weakened immune system (due to cancer or on cortisone)
  - Morbid obesity
2. Elderly above 65 years
3. Children younger than age 5 years, especially those less than 2 years
4. Pregnant women (at any stage during pregnancy)
5. Those living in nursing homes (elderly and handicapped)

6. Those going for Hajj and Umra (even during Summer) due to increased chances of getting infected by southern hemisphere viruses
7. Other categories, such as healthcare workers or those who care for children under the age of 5 years, especially those who care for children less than 6 months of age, where the complications of influenza are more severe and cannot take the vaccine for their young age

## Influenza Severity:

Influenza can cause the development of the following complications:

- Bacterial pneumonia
- Ear infection
- Sinus infection
- Dehydration
- Exacerbation of chronic diseases (such as congestive heart failure, asthma, diabetes)

## Treatment of Influenza:

Antiviral drugs for influenza are available and effective in prophylaxis and treatment. There are 2 classes of such medicines:

1. Adamantanes (amantadine and rimantadine)
2. Neuraminidase inhibitors (oseltamivir and zanamivir)

Some influenza viruses may develop resistance to the antivirals, limiting the effectiveness of treatment. WHO monitors antiviral susceptibility among circulating influenza viruses for antivirals.

## Influenza Prevention:

The most effective way to prevent the disease and/or severe outcomes from the illness is by taking the vaccine annually.

Safe and effective vaccines are available and have been used for more than 60 years. Among healthy adults, influenza vaccine can provide up to 90% protection.

The vaccine may reduce severity of disease by 60% amongst the elderly, and incidence of complications and deaths by 80%.



There are two types of influenza vaccines:

1. Influenza vaccine by injection: It is a vaccine that contains inactivated virus (Inactivated Vaccine), given by injection to people from the age of 6 months and above, including healthy adults, pregnant women and those suffering from chronic diseases.
2. Influenza vaccine by nasal spray (Nasal-Spray Flu Vaccine): A vaccine that contains a weakened virus that does not cause influenza infection. This is given to people between the age of 2 years to 49 years and is not given to pregnant women, children under two years nor the elderly over 65 years.

The most effective way to prevent influenza is by getting the vaccine annually.

The immune system produces antibodies to fight the virus after taking the vaccine, which may take two weeks to acquire protective immunity against infection with seasonal influenza. However, it does not result in the prevention of infection with microbes that cause other similar symptoms.

There are two types of vaccines, one for the northern hemisphere and another for the southern hemisphere, depending on the types of influenza viruses circulating in both hemispheres.

The influenza vaccination is most effective when the vaccine provided closely matches the circulating viruses each year. Due to the frequently changing nature of the flu viruses, the WHO monitors the influenza viruses that are spreading amongst humans in both hemispheres throughout each year and recommends a vaccine for those strains accordingly.

Flu vaccines are trivalent which fight two types of strain A (H1N1, H3N2) and one type of strain B. There are also new quadrivalent vaccines, which fight two types of strain A and two types of strain B viruses.

## Adverse Effects of Vaccine:

Influenza vaccination is safe, but it is possible that some of the symptoms accompanied by transient local reaction for no more than 48 hours, such as:

- Mild redness or swelling at the injection site
- A slight rise in temperature
- Minor body aches
- Sore throat



## Contraindications to Influenza Vaccine:

The following individuals should only be given the vaccine after consulting a doctor:

- Those who have severe eggs allergy
- Those with previous history of severe allergy to influenza vaccine
- Those with history of Guillain Barre Syndrome after taking the vaccine
- Children under the age of 6 months
- People who have very high or moderate temperature (may take the vaccine after temperature resolved)