Influenza

Influenza: global impact

The World Health Organization (WHO) estimates annual epidemics of seasonal flu cause:

- about 3 to 5 million cases of severe illness
- about 290,000 to 650,000 deaths

In temperate regions:

- Seasonal epidemics occur mainly during winter

In the tropics:

- Influenza may occur throughout the year, causing outbreaks more irregularly

In industrialised countries most deaths associated with influenza occur among people aged 65 years or older.

Epidemics can result in high levels of absenteeism and productivity loss.

Clinics and hospitals can be overwhelmed.

Research indicates that a large percentage of influenza-related child deaths occur in developing countries every year.

What is influenza?

- Influenza, commonly known as flu, is an infectious disease that affects birds and mammals.
- It is a very common respiratory illness and is highly contagious.
- It mainly affects the nose, throat and lungs.
- There are various types:
    - Seasonal
    - Avian
    - Swine
    - Variant
    - Pandemic

Seasonal flu

- Called “seasonal flu” because it causes outbreaks of illness every winter.
- Seasonal flu viruses circulate worldwide.
- Can affect all age groups.
- Can cause severe infection (mainly in high-risk groups).
- Although it is often confused with the common cold, influenza is a much more severe disease and is caused by a different type of virus.
- Resolves on its own, but sometimes complications develop and it can be fatal.

Seasonal flu viruses

Seasonal influenza is a group of viruses (A,B,C & D):

- Humans are usually only infected with types A (eg. H1N1 and H3N2), B and C.
- Human influenza viruses A and B may cause seasonal epidemics.
- Influenza C usually only causes mild illness.
- In 2009, a very different type of influenza A(H1N1) - “swine flu” - emerged to cause illness in many people. It then adapted to circulate worldwide as a seasonal flu strain.
- Influenza D primarily infects cattle.

How does flu spread?

- Infected people expel droplets when they talk, sneeze or cough.
- People can infect others at least a day before and up to 5 to 7 days after they develop symptoms.
- Most droplets fall quickly and land within 1-2 meters (3-6 feet). Surfaces can become contaminated with virus. Some particles float in the air (for a time) and can be inhaled.
- Note – if there is vomiting and diarrhoea, these body fluids may also be infectious.

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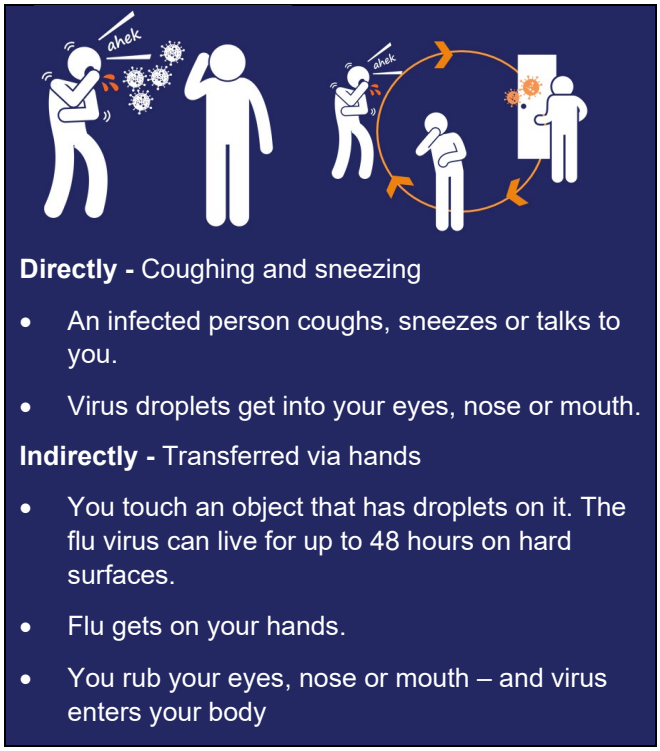

Directly - Coughing and sneezing

- An infected person coughs, sneezes or talks to you.
- Virus droplets get into your eyes, nose or mouth.

Indirectly - Transferred via hands

- You touch an object that has droplets on it. The flu virus can live for up to 48 hours on hard surfaces.
- Flu gets on your hands.
- You rub your eyes, nose or mouth – and virus enters your body

Flu or COVID-19?

Symptoms of flu and COVID-19 are similar, especially in early stages.

Only lab tests can confirm whether you have flu or COVID-19.

Symptoms

- Fever
- Headache
- Muscle aches
- Tiredness and weakness
- Extreme exhaustion
- Runny nose
- Sneezing
- Sore throat
- Cough
- Difficulty breathing/shortness of breath

Symptoms of flu

The flu usually causes a sudden illness.

- **Fever:** Common, often sudden onset temperature of 100.4ºF / 38ºC or above.
- **Headache:** Appears suddenly and can be severe
- **Muscle aches:** Usual, and often severe
- **Tiredness and weakness:** Often extreme and can last two or more weeks
- **Extreme exhaustion:** Appears suddenly and can be severe
- **Runny nose:** Sometimes
- **Sneezing:** Sometimes
- **Sore throat:** Sometimes
- **Cough:** Sudden onset

Severe influenza symptoms

Symptoms of severe flu infection:
Seek medical care promptly

Adults

- Difficulty breathing; shortness of breath
- Chest pain / pressure
- Sudden dizziness
- Confusion

Children

- Fast breathing, difficulty breathing
- Unusually irritable
- Blue or grey coloured skin / lips
- Confused, unusually drowsy
- Dehydrated (not producing urine / tears)
- Not drinking enough liquids
- Symptoms get better, then worsen

High-risk groups for complications

High-risk groups include:

- children
- elderly
- healthcare workers
- pregnant women
- people with certain chronic health conditions (lung, heart, kidney, liver, neurological disease or diabetes)
- people with a weakened immune system

Consult with your doctor early if you are in a high risk group

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COVID-19 Symptoms

Most cases are mild. Symptoms start like many other illnesses and include:

- Fever
- Cough
- Tiredness/fatigue
- Shortness of breath
- Loss of sense of taste and smell

Complications of flu

- Most people recover without treatment within a week, BUT flu can be severe or even fatal.
- Complications usually occur in people in the high-risk groups.
- One of the most serious and typical complications of flu is pneumonia, which can occur in previously healthy adults.
- Existing medical conditions may worsen if you get flu.

Diagnosing flu

- Symptoms may not be enough to diagnose flu and tests may be needed.
- Tests also help to understand whether large outbreaks in workplace settings (schools, hospitals, offices, cruise ships, summer camps) are due to influenza.
- Tests usually performed - rapid antigen testing and RT-PCR.
- Tests should be done within the first 4 days of illness.

Treating flu

Most people have a mild illness and recover with **supportive treatment:**

- rest
- fluids
- relieving symptoms (e.g. fever medication)

Seek medical attention if your symptoms worsen

Antiviral medications: May be effective in reducing the length of illness and reducing severity. People at higher risk of complications and severe flu may be prescribed antiviral medications.

Antibiotics have no role in treating influenza unless complications develop.

Prevention

Wash your hands often Wash regularly and properly with soap. Carry a hand sanitiser and use it when you can't wash your hands

Cover your cough or sneeze If you are sick, cover your cough or sneeze to avoid transferring the virus to others

Avoid touching your face Viruses can transfer from surfaces to your hands, then to your mouth and nose

Keep your distance from people who are sick If you have to attend to someone who is ill, wash your hands afterwards

Flu vaccine Especially important for people in high risk categories like children, older adults and pregnant women

Avoid unnecessary exposure Avoid crowds during flu season, and consider taking extra precautions (such as wearing a mask) if you cannot avoid them

Flu vaccine

Each year, there are new seasonal flu vaccines:

- One for the northern hemisphere winter, and one for the southern hemisphere winter.
- The vaccine contains 3 or 4 strains of killed or weakened flu strains. (A/H1N1, A/H3N2, and B strains).
- Seasonal flu vaccine does NOT protect against any new flu strains.
- Seasonal influenza vaccination is recommended each year to protect against existing seasonal flu viruses.

Who should get the flu vaccine?

- Vaccination is recommended for those age 6 months and older.
- Specially recommended for international travellers and those in the "high-risk" groups.
- Speak to your doctor about flu vaccination.
- Flu vaccine is 50% to 60% effective in preventing influenza among the overall population.
- It may be less effective in very old and very young people, but it can still help avoid serious complications from the flu.

- Patients with known allergies should discuss vaccination with their doctor.

The flu virus mutates

- The flu virus “mutates” – meaning it changes its structure.
- Because the flu virus mutates:
    - People can get infected with different “strains” of flu
    - Seasonal flu vaccine is changed every year to try to match the circulating strains
- Pandemic flu occurs when the virus undergoes a significant change.
    - People have no underlying immunity and the virus may spread worldwide