

Flu (influenza)

Influenza, commonly known as the flu, is caused by a highly contagious virus that is spread by fluids produced during coughing and sneezing, or by direct contact with those fluids on surfaces. There are three types of flu virus – influenza A, B and C.

Older people, pregnant women and those with an underlying medical condition are more likely to develop serious complications as a result of the flu. These complications include secondary bacterial pneumonia, primary influenza pneumonia, and inflammation of the brain and heart.

The flu virus has a unique ability to change its surface structure. This means that people's immune systems might not be able to effectively fight the new version of the flu that circulates each season (known as seasonal flu). This can cause widespread illness (epidemics and pandemics). For this reason, people who are at risk of complications should be immunised each year.

Most cases of influenza occur within a six- to eight-week period during winter and spring. The incubation period for flu (the time it takes to develop symptoms after an exposure to a sick person) is usually two days. People with flu can be infectious shortly before signs and symptoms commence and for up to five to seven days after becoming sick.

Epidemics occur when there are minor changes in the nature of the virus, which means that more people in a community are susceptible. Influenza A is more likely to cause epidemics. Influenza epidemics occur, on average, every three years. Even in a normal year, without an epidemic, it is estimated that over 3,000 people die from the flu.

Pandemics (worldwide epidemics) occur when there are major changes in the virus, so that the disease affects a large proportion of people in a geographic region or on more than one continent. Influenza pandemics have occurred four times in the past 100 years and can cause many deaths. The most recent pandemic occurred in 2009 and was caused by 'swine flu', a H1N1 influenza A virus.

Immunising people who are at risk of complications from the flu is the most important method we have to reduce the number of flu infections and deaths.

Causes of flu

The flu is caused by a highly contagious virus that is spread by fluids produced during coughing and sneezing, or by direct contact with those fluids on surfaces. People who work with or live in close contact with people who have an underlying medical condition or reduced immunity should be immunised to minimise the spread of the flu to themselves, the people they work or live with and their families.

Such people include:

- public and private hospital staff who provide direct care to people
- staff in long-term care facilities or nursing homes
- people who live with, or care for someone who has a chronic illness or is aged 65 years or older
- carers of homeless people.

Other people who are recommended to be vaccinated include:

- workers, particularly those in workplaces that provide essential services
- people who work with children

- people involved in the commercial poultry and pig industries (as viruses can emerge from poultry and pigs)
- anyone travelling as part of a group.

High-risk groups

People with an underlying medical condition or reduced immunity are most at risk of catching the flu and of having complications from the flu. They include:

- anyone aged 65 years and older
- children under five years
- pregnant women (at any stage of pregnancy)
- Aboriginal and Torres Strait Islander people aged 15 years and over
- People aged six months or older with heart disease, chronic lung disease (such as asthma or emphysema), chronic neurological conditions, Down syndrome, impaired immunity or haemoglobinopathies (blood disorders caused by genetic changes)
- people with chronic conditions such as obesity, diabetes, alcoholism and kidney disease
- residents in nursing homes or other long-term care facilities
- people who are homeless
- people with severe asthma who require frequent hospital visits
- children on long-term aspirin therapy
- other chronic illnesses requiring regular medical follow-up or hospitalisation.

Symptoms of flu

Flu symptoms develop one to three days after infection and include:

- high fever, chills and sweating
- sore throat
- runny or stuffed nose
- weakness
- headache
- general muscle and joint pains (in the legs and back)
- a non-productive (dry) cough that can later become more severe and productive (sputum or mucous is coughed up).

Flu is not the common cold

The flu is more severe than a bad cold because:

- Cold symptoms last from two to a few days, whereas the flu can last up to a week.
- The flu causes a high fever, whereas a cold sometimes causes only a mild fever.
- Muscular pains and shivering attacks occur with the flu, but not with a cold.
- Colds cause a runny nose, while the flu usually starts with a dry sensation in the nose and throat.
- Flu symptoms come on quickly whereas colds develop more gradually

Complications from flu

Complications are more common among people with an underlying medical condition or an impaired immune system. Flu can increase the risk of death or the risk of serious complications from the underlying disease. In a small proportion of cases, flu will lead to:

- Primary influenza pneumonia – symptoms include difficulty with breathing and blue discoloration of the skin (cyanosis).
- Secondary bacterial pneumonia – occurs when bacteria invade the lungs. Symptoms include shortness of breath, green or yellow phlegm (mucous), chest pains and a temperature. Death rates are high, but it is less lethal than primary influenza pneumonia.
- Inflammation of the brain or heart – can occur during recovery from the flu.
- Reye's syndrome – this leads to brain inflammation and liver degeneration and is fatal in between 10 and 40 per cent of cases. Children under 16 years should not be given any medication containing aspirin as it increases the risk of Reye's syndrome.

Treatment of flu

There are now specific antiviral medications available, but they need to be given early in the illness and might only reduce the symptoms rather than prevent them. These medications are not substitutes for immunisation, which is the primary way to control influenza.

The recommended treatment for mild or moderate flu is to:

- Stay in bed and rest until your body temperature has been in the normal range for 48 hours.
- Drink enough fluids to maintain normal urine output.
- Take paracetamol to control fever, aches and pains (adults can use aspirin). Early use of antiviral medication may shorten the length and severity of illness. Discuss treatment with your doctor.
- Avoid exposure to dust, alcohol, fumes and tobacco smoke as much as possible.

It is important to take these steps and look after yourself or your family member to avoid serious complications, such as pneumonia. Consult your doctor if you develop further symptoms such as difficulty in breathing, coughing up green or yellow phlegm (mucous) or severe headache.

Immunisation against influenza

Annual immunisation against the latest version of the flu is strongly recommended for people in at-risk groups, such as older people, pregnant women and those who work or live with people in at-risk groups. Immunisation can help you to avoid serious complications (such as pneumonia) that may arise as a result of contracting the virus.

You should ideally have your vaccination between March and May, before the onset of the flu season. Protection against the seasonal flu develops about two weeks after the injection and lasts for up to one year.

Annual flu immunisation is provided on the National Immunisation Program for most people in the community who are considered to be at increased risk of complications.

In Victoria, annual immunisation against the flu is free for:

- people aged six months and over who have medical conditions that put them at risk of serious complications of the flu
- Aboriginal and Torres Strait Islander people 15 years and over
- pregnant women – at any stage of pregnancy
- people aged 65 years and over.
- residents in nursing homes or other long-term care facilities
- people who are homeless
- people with severe asthma who require frequent hospitalisation
- children on long-term aspirin therapy
- people with Down syndrome who also fall under one of the above categories
- people with obesity (BMI greater or equal than 30 kg/m²) who also fall under one of the above categories
- people with chronic liver disease who also fall under one of the above categories.

Contact your doctor or immunisation provider for further information about eligibility. People not covered by these categories can also have annual flu immunisation, but it is not available for free. Some workplaces also run annual immunisation programs for staff.

Influenza vaccine is strongly recommended, but may not be free for:

- staff, volunteers and frequent visitors to a hospital, long-term care facility or nursing home
- people living or caring for someone who has a chronic illness or is aged over 65
- people providing essential services
- people who work with children
- workers in other industries
- workers in the commercial poultry and pig industries

- travellers visiting parts of the world where flu is circulating, especially if travelling in a group.

Other ways to avoid the spread of the flu

Although annual immunisation is the best way to avoid spreading the flu, another effective way to protect ourselves and others from illness is good personal hygiene.

Some of the principles of good personal hygiene include:

- Cover your nose and mouth with a tissue when you cough or sneeze.
- Throw your tissue in a plastic-lined rubbish bin after use.
- Wash your hands with soap and water, and if water is unavailable use an alcohol-based hand cleaner after you cough or sneeze.
- Avoid touching your eyes, nose or mouth as germs spread that way.
- Don't go to work if you are unwell and don't send your children to school or childcare if they are unwell.

Where to get help

- Your doctor
- In an emergency, always call triple zero (000)
- Emergency department of your nearest hospital
- Local government immunisation service
- Maternal and Child Health Line (24 hours) Tel. 132 229
- NURSE-ON-CALL Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- Immunisation Program, Department of Health, Victorian Government Tel. 1300 882 008
- National Immunisation Information Line Tel. 1800 671 811
- Pharmacist

Things to remember

- The flu is more than just a bad cold.
- Flu can occasionally lead to serious complications, including death.
- Older people and at risk groups should be immunised every year against the flu.
- After immunisation, protection from the flu takes 10 to 14 days to develop.
- The flu vaccine does not always prevent flu and some people who have been vaccinated may still develop flu.

This page has been produced in consultation with, and approved by:

DH - RHP&R - Health Protection - Communicable Disease Prevention and Control Unit

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