

## Pandemic (H1N1) 2009 influenza ('swine flu')

### what you should know

This fact sheet provides information about pandemic (H1N1) 2009 influenza and the vaccines against it.

### What is pandemic (H1N1) 2009 influenza?

Influenza (the flu) is an infection caused by the influenza virus. There are two important types of influenza viruses that cause disease in humans: influenza A and influenza B (see NCIRS fact sheet [Influenza vaccines for Australians](#)). In April 2009, a new strain of influenza A virus called 'H1N1 2009 influenza' was detected in Mexico. It then spread rapidly around the world. Due to the speed that it spread and the fact that it was a novel strain of flu, the World Health Organization declared a pandemic in June 2009. This new H1N1 influenza strain has been commonly referred to as both 'pandemic flu' and 'swine flu'. It has been called swine flu because it contains some DNA from influenza strains that infect pigs. The first case of this new pandemic strain of flu in Australia was in May 2009. In Australia (as of February 2010), there have been over 5,000 people hospitalised and nearly 200 deaths due to pandemic flu.

Like the flu which occurs every year (called seasonal flu), pandemic flu can spread from person to person in droplets when an infected person coughs or sneezes. The droplets can also settle on objects like telephones and door knobs, and can then be transferred to the nose, mouth or eyes. As pandemic flu is a new strain of influenza A, most people have not come in contact with it before and therefore are not immune.

### What are the symptoms of pandemic flu?

The symptoms of pandemic flu are similar to the symptoms of seasonal flu: fever, cough, sore throat, runny nose, body aches, headache, chills and fatigue. Some people also have diarrhoea and vomiting. The seriousness of these symptoms varies from person to person. More serious disease due to pandemic flu has been seen in younger people. This is different to what has been seen with seasonal flu which usually causes serious disease in older people. Some people, especially pregnant women, Aboriginal and Torres Strait Islander people, and people with chronic medical conditions, are more likely to get severe illness from pandemic flu (see below "[Who should be vaccinated against pandemic flu?](#)").

### What can I do to protect myself from pandemic flu?

The most effective way to protect yourself from pandemic flu is to get vaccinated against it. There are two vaccines available which can protect you from pandemic flu (described in more detail below).

There are also a number of personal hygiene practices which can help prevent the spread of the flu. These include:

- washing your hands regularly with soap and warm water (especially after you cough or sneeze, go to the toilet, or have been in contact with someone who is unwell)
- covering your mouth and nose when you sneeze or cough (if you don't have a tissue, cough or sneeze into your upper sleeve, not into your hands)
- not sharing personal items with friends or family members who have the flu
- minimising close contact with other people if you, or they, feel unwell
- seeing your doctor as soon as you have flu-like symptoms, such as fever and cough, fatigue, sore throat or a runny nose.

If you or your child feel unwell or have been diagnosed with the flu, it is important to stay at home where possible. This is to prevent further spread of the virus.

## What vaccines are available against pandemic flu?

In 2010, there are two vaccines available in Australia that can protect you against pandemic flu:

- the pandemic flu vaccine, Panvax<sup>®</sup>, and
- the 2010 seasonal flu vaccine.

While Panvax<sup>®</sup> only provides protection against pandemic flu, the 2010 seasonal flu vaccine provides protection against pandemic flu and two other influenza strains. The differences between these two vaccines are described below.

### Panvax<sup>®</sup>

The vaccine Panvax<sup>®</sup> was developed by the Australian manufacturer CSL in 2009 in response to the spread of this new pandemic strain of influenza A. Unlike seasonal flu vaccines which provide protection against three influenza strains, Panvax<sup>®</sup> only provides protection against the pandemic flu strain. Panvax<sup>®</sup> is registered by the Therapeutic Goods Administration (TGA) for use in Australians over 6 months of age.

Panvax<sup>®</sup> is not a live vaccine. It is made from proteins on the surface of the pandemic flu virus. These proteins stimulate your immune system so that it is better prepared to fight off the virus. As Panvax<sup>®</sup> does not contain live viruses, it cannot give you the flu. After receiving Panvax<sup>®</sup>, it can take up to 3 weeks for your body to produce enough antibodies to protect you from the virus. Protection against the pandemic flu is expected to last for about 1 year.

### 2010 seasonal flu vaccine

Seasonal flu vaccines provide protection against three different influenza strains; this is because more than one strain can be present each winter. The common strains of flu that infect people are usually different every flu season. This is why a new seasonal flu vaccine is released every year. In the 2010 flu season, experts are expecting pandemic flu to be one of the most common circulating strains. For this reason, the pandemic flu strain has been included in the 2010 seasonal flu vaccine along with two other influenza strains, a second influenza A strain and an influenza B strain.

Like Panvax<sup>®</sup> seasonal flu vaccines do not contain live viruses and cannot give you the flu. Seasonal flu vaccines are made by a number of pharmaceutical companies and the brand you are given may depend on the doctor or pharmacy you visit.

## Who should be vaccinated against pandemic flu?

Anyone who wants to be protected against pandemic flu should get vaccinated. Some people are more likely to have serious complications if they get pandemic flu than other people. Pregnant women are 5 times more likely to be hospitalised with pandemic flu than non-pregnant women. Aboriginal and Torres Strait Islander people are also more likely to be hospitalised if they get pandemic flu. Some medical conditions, especially asthma and severe obesity, have been associated with getting more serious pandemic flu disease.

It is particularly important that people who are more likely to develop complications from pandemic flu are vaccinated as soon as possible. These people include:

- pregnant women
- people with chronic medical conditions, including:
  - respiratory conditions (including asthma)
  - heart disease
  - diabetes
  - impaired immunity
  - neurological disease and other chronic diseases
- the severely obese (Body Mass Index greater than 35)
- Aboriginal and Torres Strait Islander people
- those who are likely to pass on pandemic flu to people who are vulnerable, for example:
  - parents and guardians of children less than 6 months old
  - frontline health care and community care workers.

It is important that you discuss with your doctor whether you or your family members have any of these risk factors for serious pandemic flu disease.

## Which flu vaccine is best for me?

Both Panvax® and the 2010 seasonal flu vaccine are available for use in all Australians over 6 months of age.

The 2010 seasonal vaccine protects against pandemic flu as well as two other influenza strains. The seasonal flu vaccine is only provided free under the National Immunisation Program for people who are at increased risk of serious influenza (see NCIRS fact sheet [Influenza vaccines for Australians](#)). If you are not eligible for the free 2010 seasonal flu vaccine and want to be protected against pandemic flu, you can either:

- receive Panvax® which is available free of charge for everyone, or
- receive the 2010 seasonal flu vaccine by getting a prescription from your doctor and buying the vaccine from your nearest pharmacy. Sometimes your doctor may have flu vaccines available for purchase directly from them.

It is advisable to discuss these options with your doctor to determine which is best for you and your family.

In April 2010, the general use of the 2010 seasonal flu vaccine was temporarily suspended in children under 5 years of age. However, if you have a child in this age group who may have serious complications from getting pandemic flu (because of a medical condition that they have), you should speak with your GP or immunisation provider about whether they should still get the 2010 seasonal flu vaccine.

The suspension does not impact on the use of the Panvax® vaccine which is safe for use in all children over 6 months of age. For more information on vaccine safety, see the section below "[Are the vaccines against pandemic flu safe?](#)".

## What if I have received Panvax® in 2009, will I still need to receive a flu vaccine this year?

If you received Panvax® in 2009, you will be protected against pandemic flu during the 2010 flu season and should not need to get Panvax® again in 2010. However, you will not be protected against any other flu strains that may also be circulating this year. If you want to be protected against additional flu strains, you should still receive the 2010 seasonal flu vaccine. This vaccine provides protection against three flu strains, including the pandemic flu. It is safe for you to receive the 2010 seasonal flu vaccine after you have already received Panvax®.

## Should I still get vaccinated against pandemic flu if I have already had 'flu-like' illness this year?

The symptoms of pandemic flu are similar to those caused by other influenza viruses and also some other types of respiratory viruses. Most people who have had 'flu-like' illness cannot tell what type of virus they have had, unless laboratory testing is done. Even if you have had flu-like illness there is no harm from being vaccinated with Panvax® or the 2010 seasonal flu vaccine.

## Are there any reasons why I shouldn't receive the pandemic flu vaccines?

Anyone who has experienced anaphylaxis (a severe allergic reaction) from a previous dose of an influenza vaccine, or from any of the vaccine components, or has a severe allergy to eggs, should not receive Panvax® or any other flu vaccine. You should inform your doctor of any severe allergic reactions that you have had and speak to your doctor if you have any concerns.

In addition, people who are moderately or severely ill with a fever should wait until they have recovered before they receive the vaccine.

## Where can I receive my vaccination?

Both vaccines available against pandemic flu in 2010, Panvax® and the 2010 seasonal flu vaccine, are available from your doctor (standard consultation fees may be charged). They are also available from vaccination clinics, hospitals and health centres. To check for these locations, please phone or go to the website of the health department in your state or territory.

## Are the vaccines against pandemic flu safe?

The pandemic flu vaccine Panvax® is made following the same method used for seasonal flu vaccines in Australia and overseas for many years. Panvax® has met the rigorous requirements for registration by Australia's Therapeutic Goods Administration. The 2010 seasonal flu vaccine is produced following the same methods and standards as seasonal flu vaccines of previous years.

In clinical trials of Panvax®, side-effects in both children and adults were similar to those seen with seasonal flu vaccines. The side-effects of Panvax® that have been recorded since its widespread use are also similar to those of seasonal flu vaccines. The most common side-effects include swelling, redness or soreness at the injection site, as well as fever, headache, tiredness and muscle aches. However, these side-effects are usually mild and short-lasting, usually less than 72 hours. You may notice that these symptoms following vaccination are similar to those you get when you have the flu. But it is important to remember that you cannot get the flu from either Panvax® or the 2010 seasonal flu vaccine. The symptoms you feel are due to the immune response your body is making to the vaccines.

More rare side-effects from flu vaccines, such as a neurological condition called Guillain-Barré syndrome, are not expected to occur as a result of receiving Panvax® or the 2010 seasonal flu vaccine. Studies carried out over many years have found that seasonal flu vaccines do not increase the likelihood of Guillain-Barré syndrome. You can find more detailed information about this at the [Australian Government Department of Health and Ageing](#) website.

More recently there have been reports of high fevers and seizures in young children in Western Australia who have received the 2010 seasonal flu vaccine. As a result of this, the general use of the seasonal vaccine has been suspended in children under 5 years of age. The suspension of the use of the 2010 seasonal vaccine in this age group is a precautionary step until further investigations are complete. Parents with children who are at risk of severe flu or flu complications should discuss the risk and benefits associated with receiving the seasonal flu vaccine with their doctor. However, these safety concerns do not apply to Panvax®. Panvax® should continue to be given to anyone over the age of 6 months who wishes to be protected against pandemic flu.

The safety of all vaccines, including Panvax® and seasonal flu vaccines, is being continually monitored. Side-effects following vaccination can be reported to the TGA ([www.tga.gov.au](http://www.tga.gov.au)). If you experience a side-effect or have concerns, you should consult your doctor.

## What treatment is available for pandemic flu?

There are two antiviral medications, oseltamivir (Tamiflu®) and zanamivir (Relenza®), that are effective in treating all influenza infections, including pandemic flu. Antivirals may make the illness milder, reduce the duration of symptoms and reduce the risk of serious flu complications. It is important to note that antivirals do not prevent an influenza infection and cannot be used instead of vaccination.

The antiviral drugs work best if the treatment is started soon after getting sick. These medications must be prescribed by a medical practitioner so it is important to see your doctor as soon as you feel unwell.

**For more detailed information on H1N1 influenza or the vaccines available, please go to:**

**Australian Government Department of Health and Ageing website**

<http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/vaccine>

or the website of the health department in your state or territory:

**ACT Health**

<http://www.health.act.gov.au/c/health?a=da&did=10098808%25C0%03d=1240874209>

**NSW Health**

<http://www.emergency.health.nsw.gov.au/swineflu/index.asp>

**Northern Territory Department of Health and Families**

[http://www.health.nt.gov.au/Centre\\_for\\_Disease\\_Control/index.aspx](http://www.health.nt.gov.au/Centre_for_Disease_Control/index.aspx)

**Queensland Health**

<http://www.health.qld.gov.au/swineflu/>

**South Australia Department of Health**

<http://www.health.sa.gov.au/>

**Tasmania Department of Health and Human Services**

<http://www.pandemic.tas.gov.au/>

**Victoria Department of Health**

<http://www.health.vic.gov.au/ideas/diseases/swine-influenza>

**Western Australia Department of Health**

[http://www.health.wa.gov.au/swine\\_flu/home/](http://www.health.wa.gov.au/swine_flu/home/)

The NCIRS fact sheet ***Influenza vaccines for Australians*** is available at

<http://www.ncirs.edu.au/immunisation/fact-sheets/influenza-fact-sheet.pdf>