

Flu

Influenza

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✓ Meets Patient's **editorial guidelines**

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Flu (influenza) is a contagious viral infection that is common in winter. It can cause sudden symptoms such as fever, aches, cough, sore throat, and tiredness, making everyday tasks difficult. Whilst most people recover within a week, flu can lead to serious complications in children, older adults, pregnant women, and those with underlying health conditions.

This leaflet explains the different types of flu, symptoms, prevention, and when to see a doctor.

In this article:

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> Frequently asked questions

Key points

- Flu is a contagious viral infection that causes fever, cough, sore throat, body aches, and fatigue. It is common during the winter months.
- The flu virus is spread through coughs, sneezes, and contaminated surfaces.
- Most people recover in 5–7 days with rest, fluids, and pain relief, but antiviral medicine may be given to high-risk patients.
- Getting the annual flu jab if you are in a high-risk group and regularly washing your hands are the most effective ways to prevent getting infected.

What is flu?

Flu (influenza) is a common infection caused by the influenza virus. There are three types of influenza virus – A, B and C. Influenza A and B cause most of the cases of flu.

Types of flu

Seasonal flu

Each winter a different type of influenza virus causes an outbreak of flu which affects many people. This is called seasonal flu. If you get a flu-like illness during an outbreak of seasonal flu, it is likely to be caused by the influenza A or B virus. Most cases of flu usually occur in a period of six to eight weeks during the winter.

Swine flu

Swine flu is caused by a particular strain of influenza A virus which is called H1N1v. It seems to affect children and young adults more commonly than those over the age of 60 years. Most people with this type of flu have a mild flu-like illness. You are more likely to have sickness and/or diarrhoea with this type of flu.



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Bird flu

Bird flu (avian influenza) is **different** and is more serious. Bird flu spreads easily between birds but very rarely spreads to humans. Spreading requires close contact with an infected bird, touching their droppings or killing/preparing an infected bird for cooking. You cannot catch bird flu from eating a properly cooked bird.

Flu-like illness

Many other viruses can cause an illness similar to flu, such as parainfluenza viruses and coronaviruses. It is often difficult to say exactly which virus is causing the illness, so doctors often diagnose a flu-like illness.

Covid-19 can also cause flu-like symptoms.

Flu symptoms

Common flu symptoms include:

- **High temperature (fever).**
- Sweats.
- Aches and pains in muscles and joints.
- A dry cough.
- Sore throat.
- Sneezing.
- **Headache.**
- Feeling sick (**nausea**).

The illness caused by the influenza virus tends to be worse than illnesses caused by other viruses which cause a flu-like illness. Even if you are young and fit, flu can make you ill enough to need to go to bed.

Flu symptoms in babies and children

Common flu symptoms in babies and young children include:



- Fever.
- Sweats.
- A cough.
- Sore throat.
- Sneezing.
- Difficulty in breathing.
- Lack of energy (lethargy).
- Poor feeding.

Some young children with flu may have a **febrile convulsion**. A febrile convulsion is a fit that occurs in some children with a fever. We don't know exactly why febrile convulsions happen to some children and not to others.

How long does flu last?

Most people recover completely from flu in 2–7 days. Typically, symptoms are at their worst after 1–2 days. Then they usually gradually ease over several days. An irritating cough may persist for a week or so after other symptoms have gone.

How do you catch flu?

Flu is passed from person to person by droplets created when someone with the infection sneezes or coughs. You can also catch it by touching a surface where the virus has been deposited. Flu can spread quickly in these ways.

Serious illnesses that are similar to flu

Other serious illnesses can have similar symptoms to flu (influenza) when they first develop – for example, **meningitis**, **malaria**, or **pneumonia**. If you have a more serious illness, other symptoms usually develop in addition to those mentioned above.

Flu-like symptoms to look out for which could mean you have a different and more severe illness include:

- Rash – in particular if dark red spots develop that do not fade when pressed.



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- Stiff neck – particularly if you cannot bend your neck forward.
- A **headache** that becomes worse and worse.
- Dislike of bright lights – if you need to shut your eyes and turn away from the light.
- Drowsiness and/or confusion.
- Repeatedly being sick (vomiting).
- Feeling short of breath or breathless, particularly if you are too breathless to walk around or talk.
- **Chest pains.**
- Coughing up blood or blood-stained phlegm (sputum).

Note: it is important to tell a doctor if you have flu-like symptoms and you have been to a country within the previous year where malaria is present. Initial symptoms of malaria can be similar to flu.

When to see the doctor

Most people with flu don't need to see a doctor, and can treat their symptoms at home until they feel better. The main treatment is time – the body's immune system will eventually get rid of the infection.

Speak to a doctor if:

- You have any of the symptoms of serious illnesses, listed above, including:
 - Feeling short of breath or breathless.
 - Coughing up blood.
 - Feeling very drowsy or confused.
- You have a **severely weakened immune system.**
- Your symptoms aren't getting any better after 7 days.
- You are pregnant.



- You are over 65.
- You are worried about your symptoms, or someone else's symptoms.

Flu treatment

Your immune system will usually clear viruses that cause flu (influenza) and flu-like illnesses. Treatment aims to ease symptoms until the infection goes, and to prevent complications. There are several treatment options as outlined below.

General measures

Stay at home as much as possible to prevent passing on the infection. You are more likely to pass on the flu in the first five days. To avoid passing the flu on you should wash your hands with soap and warm water frequently, catch sneezes and coughs in a tissue and throw the tissue in a bin quickly after using it.

Paracetamol and/or **ibuprofen** can lower your temperature and also ease aches and pains. Drink plenty of fluids to prevent lack of fluid in the body (dehydration). It is best not to smoke. Decongestant drops, throat lozenges and saline nasal drops may be helpful to ease nose and throat symptoms.

Note: parents and carers should **not** use over-the-counter cough and cold medicines in children under 6 years old. There is no evidence that they work and they can cause side-effects such as allergic reactions, effects on sleep, or even hallucinations.

Antiviral medicines

Antiviral medicines called **oseltamivir (trade name Tamiflu®)** and **zanamivir (trade name Relenza®)** are sometimes used. Antiviral medicines do not kill the virus but interfere with the way the virus multiplies. Antiviral medicines do not cure flu or offer long-term protection against flu.

Antiviral medicines have side-effects. About 1 in 20 people taking them develop nausea and vomiting.

Antivirals for flu may reduce the length of symptoms slightly, and may reduce the risk of serious complications from flu. For most people, though, these risks are already



developing flu complications, or people who are very unwell with flu.

An antiviral medicine may be prescribed if you are at increased risk of developing complications when you have flu (see list below). Treatment is usually taken for five days. GPs are only allowed to prescribe an antiviral medicine when national surveillance schemes show there is a lot of flu in the community. An antiviral medicine is also often used in people who are admitted to hospital with flu.

Medication may also be prescribed to certain people to *prevent* flu – for example, if you live in a residential home and there is an outbreak of flu in the home. It is also given if you are at increased risk of complications and have been in close contact with a person with flu.

Antiviral medicines should be given within 48 hours of getting the flu (within 36 hours for zanamivir in children) or of having contact with someone who has the flu. This is because the sooner they are given, the better they work.

Antibiotic medicines

Antibiotics kill germs called bacteria, but not viruses. Therefore, they are **not** routinely prescribed for viral illnesses such as flu or flu-like illnesses. However, they may be used if a complication develops like a chest infection caused by a germ (bacterium) or pneumonia (see below).

Admission to hospital

A small number of people with flu become ill enough to need hospital admission. This is usually because they have developed complications from flu.

Flu jab

Certain groups of people, such as older adults and young children, are at higher risk from flu infection. Immunisation for flu (flu jab) reduces the risk of catching flu, and also reduces the chances of becoming seriously unwell with flu. The flu jab provides protection for about 6 months, so flu jabs are offered annually. The types of flu virus that are around also change from year to year, so the vaccine needs to be updated against these. See the leaflet on **Immunisation for flu (Flu jab)** for further information.



Flu immunisation campaign 2024/25

The following groups of people in England are eligible for a flu vaccine as part of the NHS flu immunisation campaign. Flu vaccines will be available for children and pregnant women from 1st September 2024, and for other groups from October 2024 onwards.

- Everyone aged 65 years and over.
- Everyone aged 6 months to under 65 years who has a medical condition that makes them more vulnerable to serious flu infections. See the leaflet on **Immunisation for flu (Flu jab)** for the full list but the list includes those people with:
 - Chronic chest (respiratory) diseases.
 - Chronic heart disease.
 - Chronic kidney disease.
 - Chronic liver disease.
 - Diabetes.
 - Those who have had a stroke or transient ischaemic attack.
 - Those with a poor immune system.
 - Adults with a body mass index (BMI) of 40 kg/m² or above.
- All pregnant women, at any stage of pregnancy, and including those who become pregnant during the influenza season.
- All children aged 2 and 3 years (provided they were aged 2 or 3 years on 31 August before flu vaccinations starts in the autumn).
- All children in primary school.
- Secondary school-aged children in years 7 to 11.
- Everyone living in a residential or nursing home.
- People in receipt of a carer's allowance, or those who are the main carer of an elderly or disabled person.



- Close contacts of people with a poor immune system.
- All frontline social care staff without an employer-led occupational scheme.
- All frontline health care workers (through their employer).

Influenza vaccination should ideally be given by the end of November but can be given up until the following 31 March.

Complications of flu

If you are normally well then you are unlikely to develop complications. You are likely to recover fully. However, see a doctor if symptoms change or become worse. Complications are more likely to develop if you are in any of the at-risk groups listed below.

The most common complication is a **chest infection** caused by a germ (bacterium). This may develop in addition to the viral infection (that is, a secondary infection). This can sometimes become serious and develop into pneumonia. A course of antibiotic medication will often cure this. However, a bacterial infection can sometimes become life-threatening, particularly in those who are frail or elderly.

Note: with flu (influenza) or a flu-like illness it is common to have a cough that lingers for 1-2 weeks after other symptoms have gone. Green phlegm (sputum) does not necessarily mean that you have a secondary chest infection. The symptoms to look out for that may indicate a secondary chest infection include:

- A recurrence of a high temperature (fever).
- Worsening of **cough**.
- Shortness of breath.
- Fast breathing.
- Chest pain.

Other complications can include a sinus infection and an **ear infection**. Other serious complications are rare, such as brain inflammation (**encephalitis**).



Frequently asked questions

When is flu season?

Flu season in the UK runs from autumn to early spring, with most cases peaking between December and March. Getting the flu jab before winter offers the best protection.

How long are you contagious with flu?

You can spread flu from about a day before symptoms start until 5–7 days after. You're most contagious in the first few days when symptoms are strongest.

What is the difference between the flu and the common cold?

Flu comes on suddenly with fever, aches and tiredness, while a common cold is milder, often causing a runny nose, sneezing, and sore throat.

Is the stomach flu influenza?

The stomach flu is not influenza. It's usually viral gastroenteritis, causing diarrhoea, vomiting and cramps, while flu affects the lungs and throat.

Further reading and references

- **Guidance on use of antiviral agents for the treatment and prophylaxis of seasonal influenza** [\[link\]](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833572/PHE_guidance_antivirals_influenza_201920.pdf)
(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833572/PHE_guidance_antivirals_influenza_201920.pdf); UK Health Security Agency (November 2021)
- **Jefferson T, Jones MA, Doshi P, et al** [\[link\]](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Abstract&list_uids=24718923) (http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Abstract&list_uids=24718923); Neuraminidase inhibitors for preventing and treating influenza in adults and children. Cochrane Database Syst Rev. 2014 Apr 10;(4):CD008965. doi: 10.1002/14651858.CD008965.pub4.



- **The Green Book Chapter 19 Influenza** [↗](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1107978/Influenza-green-book-chapter19-16September22.pdf)
(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1107978/Influenza-green-book-chapter19-16September22.pdf); GOV.UK
- **Influenza – seasonal** [↗](https://cks.nice.org.uk/topics/influenza-seasonal/) (<https://cks.nice.org.uk/topics/influenza-seasonal/>); NICE CKS, April 2024 (UK access only).
- [↗](https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2023-to-2024-season) (<https://www.gov.uk/government/statistics/national-flu-and-covid-19-surveillance-reports-2023-to-2024-season>) National flu and COVID-19 surveillance reports: 2023 to 2024 season. UK Health Security Agency, 5th July 2024.

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