CONDITION

H1N1 influenza

H1N1 influenza is a contagious respiratory infection caused by a subtype of influenza A virus.

WHAT IT IS
Contagious influenza A respiratory infection

BODY SYSTEM
Respiratory system

MAIN SYMPTOMS
Fever, cough, sore throat, muscle aches

WHAT CAUSES IT
Infection with H1N1 influenza A virus

HOW IT IS DIAGNOSED
Molecular testing with influenza A subtyping

MAIN TREATMENT
Antiviral medicines and supportive care

CAN IT BE CURED?
Yes - most infections clear completely

IS IT AN EMERGENCY?
Sometimes - severe breathing difficulty needs emergency care

LONG-TERM OUTLOOK
Most people recover within days to two weeks

Overview

H1N1 influenza is a type of flu caused by an influenza A virus. It mainly affects the nose, throat, and lungs. It is often called "swine flu" because earlier forms of the virus were related to influenza viruses found in pigs.

A new H1N1 strain caused a worldwide pandemic in 2009. That strain has continued to circulate and is now one of the viruses that causes ordinary seasonal flu. It is no longer treated as a separate pandemic infection.

H1N1 spreads in the same ways as other seasonal influenza viruses. Virus-containing droplets and smaller airborne particles can pass between people when someone breathes, speaks, coughs, or sneezes. Infection can also occur after touching a contaminated surface and then touching the eyes, nose, or mouth, although this is less common.

Most people recover at home. However, influenza can cause serious illness, especially in young children, older adults, pregnant people, and people with certain long-term health conditions. Vaccination and early antiviral treatment for people at higher risk can reduce the chance of severe illness.

Symptoms

H1N1 symptoms are much the same as symptoms caused by other influenza strains. They often begin suddenly, usually one to four days after exposure.

Common symptoms include:

Not everyone with influenza develops a fever. Some people, particularly children, may also have nausea, vomiting, or diarrhoea. Digestive symptoms alone are less typical.

Symptoms are often strongest during the first few days. Fever and body aches may then settle, while cough and tiredness can last longer. A cough that improves slowly does not always mean the infection is getting worse.

Influenza can look similar to COVID-19, respiratory syncytial virus infection, and other respiratory infections. Symptoms alone cannot reliably show which virus is responsible or whether the influenza virus is H1N1.

- Fever or feeling feverish and chilled
- Cough, often dry
- Sore throat or a blocked or runny nose
- Headache, muscle aches, and marked tiredness

Causes and risk factors

H1N1 influenza is caused by infection with an H1N1 subtype of influenza A. The "H" and "N" refer to two proteins on the virus surface. These proteins help scientists classify influenza viruses.

You may be more likely to catch influenza when spending time close to someone who is infected, particularly indoors with limited fresh air. People can spread the virus before they realise they are ill. They are usually most contagious during the first few days of symptoms, although children and people with weakened immune systems may remain contagious for longer.

Anyone can develop complications, but the risk is higher for:

Having a risk factor does not mean that severe illness is certain. It means that early medical advice may be more important if flu symptoms develop.

- Children younger than 5, especially those younger than 2
- Adults aged 65 or older
- People who are pregnant or recently gave birth
- People with asthma or long-term lung, heart, kidney, liver, blood, neurological, or metabolic conditions
- People with diabetes or a weakened immune system
- People living in nursing homes or other long-term care settings

Diagnosis

A clinician may suspect influenza from your symptoms and local flu activity. A physical examination can help assess breathing, hydration, and possible complications. It cannot identify H1N1 by itself.

A respiratory sample can confirm influenza. This usually involves a swab from the nose or the back of the throat. Molecular tests, including reverse-transcription polymerase chain reaction, or RT-PCR, look for the virus's genetic material. Some molecular tests can identify influenza A and determine whether it is an H1N1 subtype.

Rapid antigen tests look for parts of the virus and can provide quick results. However, they are less sensitive than molecular tests. A negative rapid test does not always rule out influenza.

Testing is not always needed for a mild illness that can be managed at home. It is more likely to be useful if you are seriously ill, are admitted to hospital, have a higher risk of complications, or need to distinguish flu from another infection. When treatment is time-sensitive, a clinician may start it without waiting for a test result.

Treatment and management

Most people with uncomplicated H1N1 influenza improve with rest, fluids, and treatment for fever or discomfort. Follow the label directions for non-prescription medicines, and ask a pharmacist or clinician if you have other health conditions or take regular medicines.

Children and teenagers with suspected or confirmed influenza should not take aspirin unless a

clinician has specifically advised it. Aspirin use during a viral illness has been linked to Reye syndrome, a rare but serious condition affecting the brain and liver.

Prescription antiviral medicines slow the influenza virus from multiplying. They may shorten the illness and reduce some complications. Benefit is usually greatest when treatment starts early, but later treatment may still help people who are hospitalised or have severe or worsening illness.

Prompt antiviral treatment is generally prioritised for people who:

The choice of antiviral like acyclovir or oseltamivir depends on factors such as age, pregnancy, other health conditions, symptom severity, and local virus resistance. A clinician can decide whether treatment is appropriate; antibiotics like amoxicillin or doxycycline do not treat influenza itself. They may be used if a bacterial infection, such as bacterial pneumonia, develops.

At home, drink enough to keep your urine pale and regular. Rest as needed, and avoid strenuous exercise while feverish or significantly unwell. Smoking and second-hand smoke can worsen airway irritation.

- Are hospitalised with suspected or confirmed influenza
- Have severe, complicated, or worsening symptoms
- Have a health condition or life stage that increases complication risk

Complications

Pneumonia is one of the main complications. It may be caused by the influenza virus itself or by bacteria that infect the lungs during or after the flu. Warning signs can include increasing breathlessness, chest pain, confusion, or symptoms that improve and then return with a new fever or worse cough.

Influenza can also worsen asthma, chronic obstructive pulmonary disease, heart disease, and diabetes. Less common complications include inflammation of the heart muscle, brain, or muscles. Severe infection can lead to sepsis, in which the body has a dangerous reaction to infection, or failure of several organs.

Dehydration can occur when fever, vomiting, poor appetite, or tiredness makes it difficult to drink. Young children and older adults can become dehydrated more quickly.

Most people do not develop these problems. Risk is higher in people with underlying health conditions and in those at the youngest and oldest ages.

Prevention

Seasonal influenza vaccination is the main way to reduce the risk of H1N1 flu and its complications. Current seasonal vaccines include protection against an H1N1 strain selected for that flu season. The vaccine cannot cause influenza, although temporary soreness, tiredness, or a mild fever can occur afterward.

Protection is not complete, and the vaccine is updated because circulating influenza viruses change over time. Even when vaccination does not prevent infection, it may reduce the chance of severe illness.

You can also reduce spread by:

Follow local public health advice about returning to work, school, or group activities. Extra care may be needed around people with weakened immune systems.

Preventive antiviral medicine may be considered after exposure in selected high-risk situations or during outbreaks in care facilities. It is not routinely needed after every exposure.

H1N1 influenza cannot always be prevented. Vaccination and practical infection-control steps lower risk but do not remove it completely.

- Staying away from others while feverish or acutely unwell
- Covering coughs and sneezes and cleaning your hands afterward
- Improving indoor ventilation where practical
- Wearing a well-fitting mask in crowded indoor spaces during outbreaks
- Avoiding close contact with people at higher risk when you are ill

Living with it and what to expect

For most people, H1N1 is a short-term illness rather than a lasting condition. Fever and intense body aches often improve within several days. Many people feel substantially better within one to two weeks.

Tiredness and cough may continue after the main infection has settled. Energy usually returns gradually, so it can help to resume work, school, exercise, and other activities in stages. A lingering cough should slowly improve rather than become more severe.

Influenza does not usually cause permanent lung damage in an otherwise uncomplicated infection. Recovery can take longer after pneumonia, hospital treatment, or a flare of an existing lung or heart condition. Some people need follow-up to check breathing, medication

needs, or recovery from complications.

Having H1N1 once does not provide reliable lifelong protection. Influenza viruses change, and immune protection can weaken. You can therefore catch influenza again in a later season.

When to get medical help

Seek routine medical advice promptly if you develop flu symptoms and are pregnant, aged 65 or older, caring for a very young child with symptoms, or living with a condition that increases the risk of complications. Early advice also matters if you have a weakened immune system.

Contact a clinician if symptoms are not starting to improve as expected, a fever persists or returns, you cannot drink enough, or a cough or underlying health condition is getting worse.

Get urgent medical help for:

Call emergency services for severe difficulty breathing, blue or grey lips or face, a seizure, inability to wake or stay awake, or severe chest pain.

For a child, emergency signs also include ribs pulling inward with each breath, severe dehydration, poor responsiveness, or a fever in a baby younger than 12 weeks. A child who cannot walk because of severe muscle pain also needs urgent assessment.

- New or increasing shortness of breath
- Chest pain or pressure
- Confusion, fainting, or severe weakness
- Signs of dehydration, such as very little urine
- Symptoms that improve and then return with fever or a worse cough

Common questions

Is H1N1 the same as swine flu?

The name "swine flu" usually refers to the H1N1 strain that caused the 2009 pandemic. That virus now circulates as seasonal human influenza. Other influenza viruses can also infect pigs, so the informal name is not always precise.

Is H1N1 still around?

Yes. H1N1 remains one of the influenza A subtypes that circulates during seasonal flu outbreaks. Public health laboratories monitor which influenza strains are spreading.

How long does H1N1 last?

Many people improve within several days and recover in one to two weeks. Cough and tiredness may last longer. Severe infection or pneumonia can lead to a longer recovery.

Can I catch H1N1 from eating pork?

No. Properly handled and cooked pork does not transmit H1N1 influenza. The seasonal H1N1 virus spreads mainly from one person to another through respiratory particles.

Can I get H1N1 more than once?

Yes. Immunity after infection is not always complete or lifelong, and influenza viruses change over time. Annual seasonal vaccination is still relevant after a previous infection.

Does the flu vaccine protect against H1N1?

Seasonal influenza vaccines are designed to include protection against an H1N1 strain. Protection can differ from season to season, but vaccination reduces the risk of influenza and serious complications.

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