CONDITION

Mycoplasma pneumonia

Mycoplasma pneumonia is a lung infection caused by the bacterium Mycoplasma pneumoniae.

WHAT IT IS
Pneumonia caused by Mycoplasma pneumoniae bacteria

BODY SYSTEM
Lungs and airways

MAIN SYMPTOMS
Dry cough, fever, tiredness, headache

WHAT CAUSES IT
Bacterial infection spread through respiratory droplets

HOW IT IS DIAGNOSED
Respiratory PCR; sometimes paired blood antibody tests

MAIN TREATMENT
Antibiotics and supportive care

CAN IT BE CURED?
Yes - the infection usually clears

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

LONG-TERM OUTLOOK
Most people recover fully, though cough may persist

Overview

Mycoplasma pneumonia is a lung infection caused by a bacterium called Mycoplasma pneumoniae . Pneumonia means that infection has inflamed the small air sacs and surrounding tissue in one or both lungs.

The infection often starts gradually. Many people remain well enough to continue some daily activities, which is why it is sometimes described as "walking pneumonia." That term can be misleading: symptoms can still be unpleasant, and some people become seriously unwell.

Mycoplasma pneumoniae can also cause milder infections of the throat and larger airways without causing pneumonia. School-aged children and young adults are commonly affected, but anyone can catch it. Outbreaks may occur where people spend a lot of time together, such as households, schools, university accommodation and residential settings.

Most people recover without lasting lung damage. Medical assessment matters because the symptoms can resemble viral infections, other kinds of pneumonia or an asthma flare. Antibiotics like amoxicillin or doxycycline used for some other bacterial infections do not work against Mycoplasma pneumoniae .

Symptoms

Symptoms usually develop gradually rather than appearing all at once. The cough may become more noticeable over several days and can continue after the fever and other symptoms have improved.

Common symptoms include:

Children may also wheeze, have a reduced appetite or develop diarrhoea. Very young children do not always have the typical dry cough. They may instead seem unusually tired, irritable or less interested in feeding.

Some people develop a skin rash. Ear pain or inflammation of the eardrum can also occur. These symptoms do not prove that the infection is mycoplasma because many respiratory infections cause similar problems.

A cough caused by pneumonia can last for several weeks. A cough that is slowly improving is different from one that is becoming more severe or is accompanied by worsening breathlessness.

- A persistent, often dry cough
- Fever or chills
- Tiredness and weakness
- Headache
- Sore throat
- Chest discomfort, especially when coughing
- Mild shortness of breath

Causes and risk factors

The cause is infection with Mycoplasma pneumoniae . Unlike most bacteria, it has no cell wall. This is medically important because antibiotics that work by attacking bacterial cell walls, including penicillin and amoxicillin, do not treat it.

The bacterium spreads through droplets released when an infected person coughs or sneezes. Transmission usually requires fairly close or repeated contact. Symptoms may not begin until weeks after exposure, so it can be difficult to identify where the infection came from.

Risk may be higher for people who live, study or work in crowded settings. Household members of someone with the infection can also be exposed.

Severe illness is more likely in some people, including those with a weakened immune system, an existing lung condition or sickle cell disease. Older adults may also have less typical symptoms and a greater risk of complications. However, a healthy person can occasionally develop severe pneumonia too.

Having the infection once does not provide reliable lifelong protection. Reinfection is possible.

Diagnosis

A healthcare professional will ask about your symptoms, how long they have lasted and whether you have been around anyone with a respiratory infection. They may listen to your chest and measure the oxygen level in your blood with a small sensor placed on a finger.

A chest X-ray may be used when pneumonia is suspected, especially if the diagnosis is uncertain or symptoms are more severe. An X-ray can show inflammation in the lungs, but it cannot reliably identify Mycoplasma pneumoniae as the cause.

Testing is not needed for every mild infection. When identifying the bacterium would affect treatment or infection control, a respiratory sample may be tested using a nucleic acid amplification test, often called PCR. This looks for genetic material from the bacterium.

Blood antibody tests are sometimes used. Antibodies are proteins made by the immune system in response to infection. A single early blood test can be difficult to interpret because antibodies take time to develop. Comparing an early sample with another taken later can provide stronger evidence.

Growing the bacterium in a laboratory is slow and is not usually practical for routine care. Test results must be considered alongside symptoms because detecting the bacterium does not always prove that it is causing the current illness.

Treatment and management

People with mild Mycoplasma pneumoniae respiratory infections may recover without antibiotic treatment. Pneumonia caused by the bacterium is generally treated with an

antibiotic that can work despite its lack of a cell wall.

Macrolide antibiotics are commonly used. Other antibiotic groups may be considered based on factors such as age, pregnancy, local antibiotic resistance, allergies and how severe the infection is. Some choices are not suitable for every age group. A clinician will select the treatment rather than relying on symptoms alone.

Take an antibiotic exactly as directed and complete the advised course unless the prescriber tells you to stop. Contact the prescriber if you develop a possible medicine reaction or cannot keep the medicine down.

Antibiotic resistance means that some strains are not affected by certain antibiotics. If symptoms are worsening or not beginning to improve after treatment starts, further assessment may be needed. Do not switch antibiotics or use leftover medicine on your own.

Supportive care can help while the infection clears. This may include rest, enough fluids and non-prescription medicine for fever or discomfort when it is safe for you. A pharmacist or clinician can help you check whether a product is suitable, particularly for a child, during pregnancy or if you take other medicines.

Hospital care may be needed if oxygen levels are low, breathing is difficult or complications develop. Treatment there may include oxygen, fluids and closer monitoring. Steroids like prednisone or hydrocortisone are not routine treatment for uncomplicated mycoplasma pneumonia, although specialists may use them in selected severe situations.

Complications

Most people do not develop serious complications. When complications occur, they can affect the lungs or, less commonly, other parts of the body.

Possible lung complications include severe pneumonia, worsening asthma and respiratory failure, which means the lungs cannot supply enough oxygen. A small amount of fluid can sometimes collect around the lung.

The infection may rarely trigger inflammation outside the lungs. Reported complications include:

These complications are uncommon, but some require hospital treatment. New confusion, seizures, marked weakness, a widespread blistering rash or sores involving the eyes or mouth need urgent assessment.

- A significant skin or mouth rash
- Breakdown of red blood cells, known as haemolytic anaemia

- Inflammation of the brain or its surrounding tissues
- Inflammation of the heart muscle
- Kidney problems

Prevention

There is no vaccine that prevents Mycoplasma pneumoniae infection. It is not always possible to prevent spread because an infected person may be contagious before the cause of their symptoms is known.

Measures that reduce the spread of respiratory droplets may help:

A well-fitting mask can reduce the release and inhalation of respiratory droplets in crowded indoor spaces. This may be especially useful around someone at higher risk of severe illness.

Preventive antibiotics are not routinely given to everyone who has been exposed. During an outbreak in a healthcare or residential setting, public health teams may recommend specific control measures.

- Cover coughs and sneezes with a tissue or your elbow
- Wash your hands regularly
- Avoid sharing cups, cutlery and drinks
- Improve indoor ventilation when practical
- Avoid close contact while feverish or acutely unwell
- Follow local advice about returning to school or work

Living with it and what to expect

Recovery is usually gradual. Fever and general illness often settle before the cough does. Tiredness, reduced exercise tolerance and coughing may continue for several weeks as the airways recover.

Return to usual activities in stages. If an activity makes you markedly breathless, dizzy or exhausted, pause and allow more recovery time. Children may need a gradual return to school, sport and other activities.

Most people recover fully without permanent lung changes. Some have a lingering cough or temporarily worsened asthma symptoms. The expected course is less predictable after severe

pneumonia or a complication.

A routine follow-up may be appropriate if the cough is not steadily improving, symptoms return after initially settling or asthma remains harder to control. Some people need a follow-up chest X-ray because of persistent symptoms or findings, but repeat imaging is not necessary for everyone.

Pneumonia can be physically tiring and may interrupt sleep, work or study. Improvement over days and weeks is more important than feeling completely well straight away.

When to get medical help

Arrange prompt medical assessment if you have a persistent cough with fever, chest discomfort or shortness of breath. Seek advice sooner for a young child, an older adult, someone who is pregnant, or anyone with a weakened immune system or long-term heart or lung condition.

Get same-day medical help if:

Call emergency services for severe difficulty breathing, blue or grey lips, collapse, new confusion, a seizure, or difficulty waking. In a child, pauses in breathing, grunting or the skin pulling in deeply between the ribs are also emergency signs.

A lingering cough that is slowly improving does not usually require emergency care. Arrange routine follow-up if it stops improving, interferes greatly with daily life or lasts longer than expected.

- Breathing is becoming more difficult
- Fever persists, returns or is accompanied by worsening symptoms
- You cannot drink enough or are passing much less urine
- Symptoms worsen after starting treatment
- A child is feeding poorly, unusually sleepy or working harder to breathe
- You develop a widespread rash, mouth sores or yellowing of the skin

Common questions

Is mycoplasma pneumonia contagious?

Yes. The bacterium spreads through respiratory droplets during close contact. Household members, classmates and others who spend extended time with an infected person may be

exposed.

How long is someone with mycoplasma pneumonia contagious?

There is no simple cut-off that applies to everyone. The bacterium can remain in the respiratory tract after symptoms begin, and antibiotic treatment may not stop transmission immediately. Follow advice from your healthcare, school, workplace or public health team.

Is mycoplasma pneumonia the same as walking pneumonia?

It is one common cause of what people call walking pneumonia. "Walking pneumonia" is an informal term for pneumonia mild enough that a person may not need bed rest or hospital care. Other infections can also cause a mild pneumonia.

Does amoxicillin treat mycoplasma pneumonia?

No. Amoxicillin targets bacterial cell walls, and Mycoplasma pneumoniae does not have a cell wall. Treatment requires a different type of antibiotic when an antibiotic is needed.

How long does the cough last?

The cough often improves more slowly than fever or tiredness and may continue for several weeks. Seek reassessment if it is getting worse, comes with increasing breathlessness or is not gradually improving.

Can I get mycoplasma pneumonia more than once?

Yes. Previous infection does not create reliable lifelong immunity, so reinfection can occur.

Sources

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