CONDITION

Polymyositis

Polymyositis is a rare immune-related condition that causes ongoing muscle inflammation and weakness.

WHAT IT IS
Rare immune-related inflammation causing progressive muscle weakness

BODY SYSTEM
Muscles and immune system

MAIN SYMPTOMS
Hip weakness, shoulder weakness, swallowing difficulty, fatigue

WHAT CAUSES IT
Misguided immune attack; trigger usually unknown

HOW IT IS DIAGNOSED
Blood tests, MRI or EMG, and often muscle biopsy

MAIN TREATMENT
Corticosteroids, other immune-suppressing medicines, and rehabilitation

CAN IT BE CURED?
No - treatment can control inflammation

IS IT AN EMERGENCY?
Sometimes - severe swallowing or breathing trouble

LONG-TERM OUTLOOK
Many improve; relapses or lasting weakness can occur

Overview

Polymyositis is a rare condition in which the immune system mistakenly attacks muscle tissue. This causes inflammation and gradually worsening weakness, especially in the muscles around the hips, thighs, shoulders, upper arms, and neck.

The weakness usually develops over weeks or months. Everyday tasks such as climbing stairs, standing from a chair, lifting objects, or washing your hair may become difficult. Some people also develop swallowing or breathing problems.

Polymyositis belongs to a group called idiopathic inflammatory myopathies. "Myopathy" means a condition affecting muscles, while "idiopathic" means that the exact cause is not known.

Modern testing has shown that true polymyositis is less common than previously thought. Some people once diagnosed with it are now found to have a related condition, such as dermatomyositis, immune-mediated necrotizing myopathy, antisynthetase syndrome, or inclusion body myositis. Getting the subtype right matters because treatment and long-term expectations can differ.

Symptoms

The main symptom is muscle weakness on both sides of the body. It usually affects muscles close to the trunk rather than the hands or feet.

You may notice difficulty:

Weakness is usually more important than pain. Some people have aching or tender muscles, but severe muscle pain is not typical. Fatigue, reduced stamina, a mild fever, or unplanned weight loss can occur.

Weakness in the throat muscles can make swallowing difficult. Food may feel stuck, liquids may go down the wrong way, or you may cough during meals. A weak or nasal-sounding voice can also develop.

Breathing can be affected if the condition weakens breathing muscles or causes interstitial lung disease. This is inflammation and scarring in the tissue around the lungs' air sacs. Symptoms may include a dry cough or breathlessness.

A skin rash is not a usual feature of polymyositis. A distinctive rash may point toward dermatomyositis or another diagnosis. Numbness and tingling are also not typical and may suggest a nerve problem.

- Getting up from a low chair or the floor
- Climbing stairs or walking uphill
- Lifting your arms above your head
- Carrying groceries or lifting objects
- Holding your head up when neck muscles are affected

Causes and risk factors

Polymyositis is considered an autoimmune condition. This means the immune system, which normally protects you from infection, mistakenly targets healthy muscle tissue.

Why this happens is usually unknown. Genetic susceptibility and environmental triggers may contribute, but polymyositis is not directly inherited in a simple pattern. It is not contagious and cannot be passed between people.

Several other problems can cause similar weakness or abnormal muscle blood tests. These include thyroid conditions, medication side effects, infections, inherited muscle conditions, and other inflammatory myopathies. Statins and some other medicines can occasionally cause muscle injury, but medication-related muscle symptoms are not automatically polymyositis.

Certain autoantibodies-immune proteins found in the blood-can help identify a more specific inflammatory muscle condition. For example, some antibody patterns are linked with lung inflammation, joint symptoms, or a condition called antisynthetase syndrome.

Diagnosis

There is no single test that confirms every case. Diagnosis usually combines your symptoms, a physical examination, blood tests, muscle studies, and sometimes a biopsy.

Blood tests measure creatine kinase, often called CK. This enzyme leaks into the blood when muscle fibres are damaged. Other muscle enzymes may also be raised. A high CK supports muscle injury but does not prove polymyositis, and the result does not always match the level of weakness.

Blood tests may also look for autoantibodies associated with inflammatory muscle conditions. These can help clarify the subtype and whether the lungs or other organs may need checking.

An MRI scan can show inflammation and damage within muscles. It may also help identify a suitable area for biopsy. Electromyography, or EMG, uses a fine needle to measure electrical activity in muscle and can help separate a muscle condition from a nerve problem.

A muscle biopsy removes a small sample under local or general anaesthesia. A laboratory examines it for patterns of inflammation and muscle-fibre damage. Biopsy is often important because several conditions can look like polymyositis at first.

You may also have tests to assess swallowing, breathing, heart function, or lung health. Cancer screening may be reviewed because some inflammatory myopathies can occur alongside cancer, although this link is stronger with certain subtypes than with others. Screening is based on factors such as age, symptoms, antibody results, and the final diagnosis.

A rheumatologist or neurologist will usually coordinate the assessment. A second specialist review may be useful when findings do not fit neatly, weakness is uneven, or treatment is not helping as expected.

Treatment and management

Treatment aims to reduce muscle inflammation, restore function, prevent complications, and control any effects on swallowing, breathing, or other organs.

Corticosteroids like prednisone or hydrocortisone are commonly used as initial treatment because they can suppress inflammation quickly. They may be followed or combined with another immune-suppressing medicine to improve control and reduce long-term steroid exposure.

Medicines such as methotrexate, azathioprine, mycophenolate, or other immune treatments may be considered. The choice is influenced by the exact inflammatory myopathy, its severity, lung involvement, pregnancy plans, other health conditions, and possible side effects.

Intravenous immunoglobulin, known as IVIG, may be used in severe or treatment-resistant cases, including significant swallowing weakness. Other targeted immune treatments are sometimes considered when standard options have not worked. These treatments require specialist supervision and monitoring.

Corticosteroids and other immune-suppressing medicines can increase the risk of infection and cause other side effects. Regular reviews may include blood tests, blood-pressure checks, bone-health assessment, and discussion of vaccination.

Physical therapy is an important part of treatment. A planned exercise programme can help rebuild strength, maintain movement, and reduce loss of fitness. Activity is usually increased gradually. Complete rest for long periods can worsen weakness, while intense exercise during active inflammation may not be appropriate.

An occupational therapist can suggest ways to make dressing, bathing, cooking, work, and household tasks safer and less tiring. If swallowing is affected, a speech and language therapist can assess swallowing and recommend safer food textures or techniques.

Complications

Not everyone develops complications. The risks are influenced by which muscles and organs are affected, how quickly treatment controls inflammation, and whether weakness has caused lasting muscle damage.

Possible complications include:

Heart involvement is uncommon but can include rhythm problems or inflammation of heart muscle. Chest symptoms still need assessment because they may have causes unrelated to polymyositis.

Persistent weakness despite treatment may mean that inflammation remains active, muscle damage has become permanent, treatment itself is contributing to weakness, or the original diagnosis needs to be reconsidered.

- Falls and injuries caused by hip or leg weakness
- Choking or aspiration, where food or liquid enters the airway
- Chest infections related to aspiration
- Weight loss or poor nutrition from difficulty swallowing
- Breathing problems from weak respiratory muscles or lung inflammation
- Reduced mobility, muscle shortening, or loss of physical fitness
- Side effects from long-term immune-suppressing treatment

Prevention

There is no known way to prevent polymyositis because its exact trigger is unknown. It is not caused by ordinary exercise, diet, or something you did.

Once the condition develops, treatment and monitoring can help prevent avoidable complications. This may include swallowing assessment, supervised exercise, fall prevention, bone protection during steroid treatment, and early investigation of new breathing symptoms.

Because immune-suppressing treatment can make infections more serious, vaccination and infection precautions may be reviewed before and during treatment. Vaccine timing should be planned with your healthcare team because some vaccines may not be suitable during certain immune treatments.

Living with it and what to expect

Recovery often takes time. Blood markers of muscle injury may improve before strength returns because muscles need time and rehabilitation to rebuild. Changes are usually measured over weeks and months rather than days.

Many people improve with treatment and regain useful strength. Some reach a period of remission, meaning there is little or no active inflammation. Others have relapses that require treatment changes. A proportion of people have ongoing weakness because inflammation remains active or muscle fibres have been permanently damaged.

Follow-up commonly includes strength checks, blood tests, medication monitoring, and review

of swallowing or breathing symptoms. New or unexpected patterns of weakness may lead to further testing to confirm that the diagnosis remains correct.

Pacing can make daily life more manageable. This means balancing activity with planned rest rather than waiting until you are exhausted. Equipment such as handrails, raised seats, or mobility aids may help you remain independent while strength is limited.

Work, driving, caring responsibilities, and exercise may need temporary adjustment. Many people continue these activities, but the support required differs. Emotional strain is also understandable when symptoms change your independence or take a long time to improve. Rehabilitation services and patient support groups can help with practical adaptation.

When to get medical help

Arrange a routine appointment if you develop gradually worsening difficulty climbing stairs, rising from a chair, lifting your arms, or completing usual activities. These symptoms have many possible causes and need proper assessment rather than self-diagnosis.

Contact your healthcare team promptly if established symptoms worsen, you fall repeatedly, treatment side effects are troubling you, or swallowing becomes more difficult. A new cough, breathlessness, or fever also needs timely advice, particularly if you take immune-suppressing medicine.

Seek urgent medical assessment if you:

Call emergency services if you are struggling to breathe, cannot swallow saliva, are choking, become blue or grey around the lips, or develop severe chest pain. These are emergency symptoms regardless of whether polymyositis is the cause.

- Cough or choke repeatedly when eating or drinking
- Develop rapidly worsening weakness
- Cannot eat or drink enough because swallowing is difficult
- Have new shortness of breath or a persistent dry cough
- Develop signs of infection while taking immune-suppressing treatment

Common questions

Is polymyositis a form of muscular dystrophy?

No. Muscular dystrophies are usually inherited conditions caused by gene changes.

Polymyositis involves immune-related muscle inflammation and is usually treated with medicines that reduce immune activity.

Can polymyositis be cured?

There is no guaranteed permanent cure. Treatment can control inflammation, and some people enter remission. Relapses or lasting weakness can still occur.

Does polymyositis cause pain?

It can cause muscle aching or tenderness, but progressive weakness is usually the main feature. Severe pain may have another cause and should be assessed.

Can I exercise with polymyositis?

Exercise is often part of recovery, but it should match your strength and the level of active inflammation. A physiotherapist can help create a gradual programme that avoids both overexertion and prolonged inactivity.

How is polymyositis different from dermatomyositis?

Both cause inflammatory muscle weakness. Dermatomyositis also causes characteristic skin changes, although muscle and skin symptoms may not begin at the same time. Testing may identify other differences between the two conditions.

Why might my diagnosis change after more tests?

Several inflammatory muscle conditions produce similar early symptoms. Antibody testing, imaging, biopsy findings, treatment response, and the pattern of weakness may reveal a more specific diagnosis over time.

Sources

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