Polymyositis
Polymyositis

betterhealth.vic.gov.au
Polymyositis is a connective tissue disease that triggers inflammation and muscular weakness. The cause is unknown, but polymyositis is thought to be an autoimmune disorder, possibly triggered by a viral infection. Since symptoms differ between individuals, polymyositis is hard to diagnose and may be mistaken for muscular dystrophy. Treatment options include corticosteroids, immunosuppressive drugs and physical therapy.

The disease is more common in women than men and tends to develop between the ages of 50 to 70 years, although anyone of any age or either sex can be affected. Usually, the muscle weakness develops gradually over the course of a few weeks or months. The inflammation may spread to other areas of the body including the heart.

Since symptoms differ between individuals, polymyositis is hard to diagnose and may be mistaken for muscular dystrophy. In many cases, polymyositis is associated with other autoimmune disorders of connective tissue such as scleroderma, systemic lupus erythematosus, rheumatoid arthritis and Sjogren’s syndrome.

Symptoms of polymyositis

The symptoms include:

- The shoulders and hips usually affected first
- Muscular weakness
- Muscle wastage
- Muscle pain
- Fatigue
- Breathlessness
- Swallowing difficulties
- Tremors, particularly of the hands
- Wide-footed stance and walking style
- Chills
- Tendency to fall over.

Progression of weakness

Polymyositis develops gradually over weeks or months. By the time the person experiences symptoms, they have already lost around half of their muscle fibres to the disease. The head, hands and feet are usually untouched by the disease. Difficulties may include:

- Profound muscular weakness in affected body parts, such as being unable to lift the arms above shoulder height or lift the head off a pillow
- Voice changes, if the muscles of the larynx are affected
- Problems with swallowing if the oesophagus is affected, with a tendency to regurgitate food
- Peristalsis (the muscular contractions of the bowel) may falter, leading to constipation
- In its later stages, abnormal shortening of muscles (contracture).

A malfunction of the immune system

The cause of polymyositis hasn’t been found, but there is good evidence to indicate that it is likely to be an autoimmune disorder, which means the immune cells mistakenly attack the muscle fibres of the body. If a small tag (biopsy) of affected muscle is examined in a laboratory, it looks withered and studded with immune system cells. Muscle tissue could be damaged by the immune system as it tries to rid the tissue of a viral infection.

As people with polymyositis are likely to have other connective tissue disorders, such as rheumatoid arthritis or scleroderma, there could be a genetic susceptibility. People with polymyositis also tend to have family members with connective tissue disorders, which further supports the theory of an inherited tendency.

Possible complications of polymyositis

The person may experience difficulties with breathing or swallowing if the associated muscles weaken too severely. Some of the other possible complications of polymyositis include:

- Heart inflammation
- Heart attack
Diagnosis of polymyositis

Polymyositis is sometimes mistaken for muscular dystrophy, so careful diagnosis is important. Some of the tests for polymyositis include:

- **Medical history** – people with other connective tissue diseases, such as scleroderma, are at greater risk of polymyositis.
- **Physical examination** – this includes general tests.
- **Electromyography** – wires attached to the skin measure the electrical activity of muscles.
- **Muscle biopsy** – a small tag of muscle tissue is removed and examined in a laboratory for evidence of degeneration and abnormal immune system activity. This is the definitive test for polymyositis.
- **Scans** – these include magnetic resonance imaging.
- **Blood tests** – an antibody titre is included, since polymyositis is characterised by the overproduction of particular antibodies. There are also higher than normal amounts of a muscle enzyme indicating muscle damage (creatine phosphokinase) circulating in the bloodstream, which can be measured by a specific blood test.
- **Other tests** – these are used to exclude other causes such as bacterial or parasitical infections of muscle tissue.

Treatment for polymyositis

The outlook for polymyositis is hard to predict. Some people will recover, most will respond satisfactorily to treatment, while others will die from complications.

Treatment options include:

- **Corticosteroids** – used to dampen the activity of the immune system and reduce inflammation. For some people, corticosteroids contribute to muscle weakness, so other medications have to be used instead.
- **Immunosuppressive drugs** – include drugs such as azathioprine and methotrexate.
- **Plasmapheresis** – the antibodies responsible for attacking muscle tissue are removed from the bloodstream by plasmapheresis. Blood is taken from the patient and the blood cells are separated from the plasma. Only the blood cells are returned to the patient, leaving the antibodies behind in the plasma.
- **Immunoglobulin** – a special protein obtained from the plasma of blood donors, and administered intravenously, has sometimes had good results in difficult cases.
- **Physical therapy** – helps strengthen muscles.
- **Ongoing monitoring** – includes blood tests, so that medications can be adjusted if necessary. Generally, the initial doses are high, then gradually tapered down.

Dermatomyositis

Dermatomyositis is not the same disease, but is often grouped with polymyositis. They share many similarities such as muscle inflammation and weakness, immune system involvement and similar treatment therapies.

Apart from muscular weakness, other symptoms of dermatomyositis include:

- Blotchy, dark red skin rash on the cheeks, throat, shoulders and chest
- Sometimes, the whole skin surface may appear reddened
- Swollen and painful muscles
- More likely to be an associated cancer
- Children aged between five and 15 years most commonly affected.

Where to get help

- Your doctor
- Rheumatologist
- Muscular Dystrophy Association Tel. (03) 9320 9555 or 1800 656 632
- Myositis Association Tel. (02) 4464 2043

Things to remember

- Polymyositis is a connective tissue disease that triggers inflammation and muscular weakness.
- The cause is unknown, but polymyositis is thought to be an autoimmune disorder, possibly triggered by a viral infection.
- Since symptoms differ between individuals, polymyositis is hard to diagnose and may be mistaken for muscular dystrophy.
- Treatment options include corticosteroids, immunosuppressive drugs and physical therapy.

References


Send us your feedback

- Rate this website
- Your comments
- Questions
- Your details
1/4 How would you rate this website?

- ☒ Excellent
- ☐ Good
- ☐ Average
- ☐ Fair
- ☐ Poor

Next Submit Now Cancel

Send us your feedback

- Rate this website
- Your comments
- Questions
- Your details

Please note that we cannot answer personal medical queries. If you are looking for health or medical advice we recommend that you:

- talk to your doctor or pharmacist
- dial triple zero (000) in an emergency
- ring NURSE-ON-CALL Tel. 1300 60 60 24.

2/4 Your Comments

Tell us who you are  Select an option

Enter your comments below (optional)

Next Submit Now Cancel

Send us your feedback

- Rate this website
- Your comments
- Questions
- Your details

3/4 Questions

What are you here to do?  Looking for information on

Did you find what you were looking for?

- ☒ Yes
- ☐ No

Next Submit Now Cancel

Send us your feedback

- Rate this website
- Your comments
- Questions
- Your details

4/4 Your details

Postcode

Email Address

Submit Now Cancel

Send us your feedback

Thank you. Your feedback has been successfully sent.

More information

Immune system

betterhealth.vic.gov.au
The immune system explained

The immune system remembers every germ it has ever overcome.

Vaccines

Vaccines trick the body into building immunity against infectious diseases without causing the actual disease.

Lymphatic system

Fluid retention (oedema)

Fluid retention (oedema) occurs when fluid isn't removed from the body tissues, including the skin. Causes include the body's reaction to hot weather, a high salt intake, and the hormones associated.

Lymphatic system

The lymphatic manages fluid levels in the body, filters out bacteria and houses types of white blood cells.

Lymphoedema

Women who have undergone treatment of breast cancer are particularly susceptible to lymphoedema of the arm.

Lymphoma

Lymphoma is a general term for a cancer that begins in the lymphatic system.

Spleen

Spleen

Surgically removing a diseased or damaged spleen is possible without causing any serious harm to the person.

Splenomegaly

Any conditions that cause a rapid breakdown of blood cells can place great strain on the spleen and make it enlarge.

Lupus

Lupus

Lupus can be mild or life-threatening, depending on which tissues are affected.

Lupus and infections

The most common infections for people with lupus include those of the respiratory tract, skin and urinary system.

Lupus and medication

Lupus most commonly appears in women of childbearing age.

Lupus and pregnancy

Lupus can be controlled with medications, so the majority of affected women are able to have children.

Autoimmune disorders

Addison's disease

Most cases of Addison's disease are caused by an autoimmune response that attacks and damages the adrenal glands over time.

Autoimmune disorders

There is generally no cure for an autoimmune disorder, but the symptoms can be managed.

Diabetes type 1

Type 1 diabetes can affect anyone of any age, but is more common in people under 30 years.
• Guillain-Barré syndrome
  Most people with Guillain-Barré syndrome experienced some form of viral or bacterial infection before the onset of symptoms...

• Henoch-Schönlein purpura
  Henoch-Schönlein purpura causes a purple spotted skin rash which lasts around one to four weeks, and is often marked by relapses...

• HIV
  In Australia, HIV is most commonly spread when having sex without a condom and when sharing needles and other injecting equipment...

• Hughes syndrome
  Hughes syndrome is thickening of the blood caused by abnormal immune system cells...

• Idiopathic thrombocytopenic purpura (ITP)
  Idiopathic thrombocytopenic purpura (ITP) is a rare autoimmune disorder in which a person’s immune system destroys the platelets that help their blood to clot...

• Lipoedema
  Lipoedema is a painful, chronic, symmetrical swelling in the legs, thighs, buttocks and sometimes arms due to the accumulation of fat in the subcutaneous tissues. The onset often occurs during puberty...

• Myasthenia gravis
  Myasthenia gravis is an autoimmune disease that causes muscle weakness...

• Polymyositis
  Polymyositis is hard to diagnose and may be mistaken for muscular dystrophy...

• Raynaud's phenomenon
  Raynaud's phenomenon can be a sign of a more serious underlying condition, so see your doctor if you experience it...

• Reactive arthritis
  Reactive arthritis is a form of arthritis that occurs as a result of some bacterial infections...

• Retroperitoneal fibrosis
  Retroperitoneal fibrosis is the abnormal growth of tissue on and around abdominal structures, including blood vessels and ureters...

• Rheumatoid arthritis
  Early treatment of rheumatoid arthritis is important in helping you manage the condition more effectively...

• Scleroderma
  The most common symptom of scleroderma is a thickening and hardening of the skin, particularly of the hands and face...

• Sjogren’s syndrome
  Sjogren’s syndrome can be managed with medications and products such as artificial tears and saliva...

• Thyroid - Hashimoto's disease
  Hashimoto's disease progresses very slowly over many years, so the symptoms may go unnoticed...

• Thyroid - hyperthyroidism
  Hyperthyroidism can be diagnosed with a simple blood test that measures thyroid hormone levels...

Related Information

• Myasthenia gravis
  Myasthenia gravis is an autoimmune disease that causes muscle weakness...

• Raynaud's phenomenon
  Raynaud's phenomenon can be a sign of a more serious underlying condition, so see your doctor if you experience it...

• Sjogren’s syndrome
  Sjogren’s syndrome can be managed with medications and products such as artificial tears and saliva...

• Retroperitoneal fibrosis
  Retroperitoneal fibrosis is the abnormal growth of tissue on and around abdominal structures, including blood vessels and ureters...

betterhealth.vic.gov.au
Idiopathic thrombocytopenic purpura (ITP)

Idiopathic thrombocytopenic purpura (ITP) is a rare autoimmune disorder in which a person’s immune system destroys the platelets that help their blood to clot...