

Polymyalgia rheumatica

Definition

Polymyalgia rheumatica (PMR) is an inflammatory disorder that causes widespread muscle aching and stiffness, primarily in your neck, shoulders, upper arms, thighs and hips.

Although some people develop these symptoms gradually, polymyalgia rheumatica can literally appear overnight. People with polymyalgia rheumatica may go to bed feeling fine, only to awaken with stiffness and pain the next morning.

Just what triggers polymyalgia rheumatica is not known, but the cause may be a problem with the immune system, perhaps involving both genetic and environmental factors. Aging also appears to play a role.

Polymyalgia rheumatica usually goes away on its own in a year or two. But you do not have to endure polymyalgia rheumatica for months or years. Medications and self-care measures can improve your symptoms.

Polymyalgia rheumatica is an arthritic syndrome that causes your muscles to feel achy and stiff due to mild inflammation in your joints and surrounding tissues. Most of the inflammation occurs in the hip and shoulder joints, but it may develop elsewhere in your body as well. In general, the inflammation is not as severe as that in inflammatory types of arthritis, such as rheumatoid arthritis.

In polymyalgia rheumatica, inflammation occurs when white blood cells which normally protect your body from invading viruses and bacteria attack the lining of your joints (synovium). Researchers are not sure what causes this abnormal immune system response, but they suspect that as with many disorders, both genetic and environmental factors are involved.

There may be a link between polymyalgia rheumatica and certain viruses, such as adenovirus, which causes respiratory infections ranging from the common cold to pneumonia; human parvovirus B19, the source of an infection that primarily affects children; and human parainfluenza virus.

Causes

Polymyalgia rheumatica is a disorder that almost always occurs in persons over 50 years old. The cause is unknown. Although symptoms are located predominantly in the muscles and there are no outward signs of arthritis, in some cases there is evidence of inflammatory arthritis.

The disorder may occur independently, or it may coexist with or precede temporal arteritis, which is an inflammation of blood vessels (usually in the head).

Symptoms

Polymyalgia rheumatica symptoms may include:

- Moderate to severe aching and stiffness in the muscles in your hips, thighs, shoulders, upper arms and neck
- Unintentional weight loss
- Weakness or a general feeling of being unwell
- Sometimes, a slight fever
- Hip pain and stiffness
- Shoulder pain and stiffness
- Neck pain and stiffness
- Muscle pain (minimal, less common than aching)
- Anemia (low number of red blood cells in the blood)
- Fatigue (excessive tiredness)
- Malaise (general ill feeling)
- Face pain
- Other joint pain
- Note: Symptoms usually begin abruptly.

Initially, you may have pain on just one side of your body, but as the disease progresses, symptoms are likely to occur on both sides.

Stiffness is usually worse in the morning or after sitting or lying down for long periods. At times, the discomfort may also be severe enough to wake you at night.

The aching and stiffness of polymyalgia rheumatica often occur suddenly, but sometimes may develop gradually.

Between 10 percent and 20 percent of people with polymyalgia rheumatica have a related condition called giant cell arteritis, which causes the arteries in your temples and sometimes in your neck and arms to become swollen and inflamed.

Complications

The most serious complication of polymyalgia rheumatica is giant cell arteritis. The exact relationship between the two conditions is not clear, but between 10 percent and 20 percent of people with polymyalgia rheumatica also develop giant cell arteritis and nearly half of those with giant cell arteritis have polymyalgia rheumatica.

Giant cell arteritis causes the lining of arteries to become inflamed and swollen. Arteries are blood vessels that carry oxygen-rich blood from your heart to the rest of your body. Although giant cell arteritis can affect the arteries in your neck, upper body and arms, it occurs most often in the scalp arteries in your temples. Untreated, giant cell arteritis may lead to vision loss, a stroke or an aortic aneurysm, a potentially life-threatening bulge in the large artery that runs down the center of your chest and abdomen.

Polymyalgia rheumatica itself causes few other serious problems, but the corticosteroid drugs used to treat the disease can cause a number of serious side effects, such as weight gain, high blood pressure, osteoporosis, high blood sugar levels and cataracts.

Lifestyle and home remedies

Once you start taking medication for polymyalgia rheumatica, your pain and stiffness should greatly improve. In addition, the suggestions below also can help:

- Exercise regularly. Exercise can reduce the pain of polymyalgia rheumatica and improve your overall sense of well-being. It can also help prevent weight gain, a common side effect of taking

corticosteroids. Emphasize low-impact exercises such as swimming, walking and riding a stationary bicycle. Moderate stretching also is important for keeping your muscles and joints flexible.

If you are not used to exercising, start out slowly and build up gradually, aiming for at least 30 minutes on most days. Plan an exercise program that is right for you.

- Eat a healthy diet. Eating well can help prevent potential problems such as thinning bones, high blood pressure and diabetes. Good nutrition can also support your immune system. Emphasize fresh fruits and vegetables, whole grains, and lean meats and fish, while limiting salt, sugar and alcohol.

Get adequate amounts of bone-building nutrients calcium and vitamin D. If you find it hard to get calcium from your diet because you can not eat dairy products, for example, try calcium supplements. Experts recommend 1,200 milligrams of calcium and 800 international units (IU) of vitamin D a day.

- Pace yourself. Try to alternate strenuous or repetitive tasks with easier ones to prevent straining painful muscles. Use luggage and grocery carts, reaching aids, and shower grab bars to help make daily tasks easier

Risk factors

Although the exact causes of polymyalgia rheumatica are unknown, certain factors may increase your risk of developing the disease, including:

- **Age.** Polymyalgia rheumatica affects older adults almost exclusively, the average age at onset of the disease is 60.
- **Sex.** Women are twice as likely to develop the condition as men are.

- **Race.** Although polymyalgia rheumatica can affect people of any race, the vast majority are white. People of Northern European and Scandinavian origin are particularly at risk.
- **Giant cell arteritis.** Also at risk are people with giant cell arteritis, a condition that causes arteries in your temples or sometimes other parts of your body to become swollen and inflamed. As many as half the people with giant cell arteritis also have polymyalgia rheumatica.

Tests and diagnosis

The signs and symptoms of polymyalgia rheumatica are similar to those of a number of other conditions, including rheumatoid arthritis and polymyositis a disease that causes muscle inflammation and weakness. For that reason, you will want to rule out other possible causes for your pain and stiffness before making a diagnosis of polymyalgia rheumatica.

To aid in the diagnosis, You are likely to have one or more tests, including:

- **Sedimentation rate.** If your doctor suspects polymyalgia rheumatica, he or she will order a blood test that checks your erythrocyte sedimentation rate, commonly known as the sed rate. This test measures how quickly your red blood cells settle when placed in a test tube. Generally, the blood cells fall faster, that is, the sed rate increases when inflammation is present. But because many conditions can cause inflammation in your body, including infections and chronic diseases, such as rheumatoid arthritis and other rheumatic disorders, an elevated sed rate alone cannot confirm the presence of polymyalgia rheumatica.
- **Rheumatoid factor (RF).** RF is an antibody a protein made by the immune system that is often present in the blood of people with rheumatoid arthritis, but not in the blood of people with polymyalgia rheumatica. Consequently, this test can help your doctor distinguish between the two conditions.

- **Other blood tests.** Your doctor may also check the number of red blood cells and platelets (thrombocytes) in your blood. Platelets are colorless blood cells that help stop blood loss when you are injured. Most people with polymyalgia rheumatica have an unusually high number of these cells (thrombocytosis). On the other hand, many people with polymyalgia rheumatica have a lower number of red blood cells than normal and are often anemic.

You may also have a simple and inexpensive blood test that checks levels of C-reactive protein in your blood. The protein is produced by your liver as part of a normal immune system response to injury or infection. Among other things, high blood levels of C-reactive protein may indicate the presence of inflammation.

Also check your anti-ccp antibodies

Blood tests are nonspecific.

- The sedimentation rate (ESR) is often elevated.
- Creatine kinase (CPK) is normal.
- Hemoglobin or hematocrit may be normal or low.

Checking for giant cell arteritis

If you receive a diagnosis of polymyalgia rheumatica, your doctor will check for a related condition called giant cell arteritis, which occurs in some people with polymyalgia rheumatica. Signs and symptoms such as new headaches, a tender scalp, pain when you chew, visual changes including double vision or visual loss along with the results of a sed rate test can help determine whether you have this disorder.

The only way to confirm a diagnosis of giant cell arteritis is by taking a small sample (biopsy) from the scalp artery in your temple (temporal artery). The sample is then examined under a microscope in a laboratory. Although polymyalgia rheumatica and giant cell

arteritis are both treated with corticosteroids, the recommended dosage for management of giant cell arteritis is higher than for polymyalgia rheumatica. As a result, your doctor will likely recommend confirming the diagnosis of giant cell arteritis with a biopsy.

Treatments and drugs

Nonsteroidal anti-inflammatory drugs (NSAIDs) such as aspirin and ibuprofen (Advil, Motrin, others) can be effective in treating mild symptoms of polymyalgia rheumatica. However, long-term use of NSAIDs can cause stomach and intestinal bleeding, fluid retention, high blood pressure, renal insufficiency, worsening congestive heart failure, liver function test abnormalities, and possible cognitive changes.

Corticosteroids

In most cases, the usual polymyalgia rheumatica treatment is a low, daily dose of an oral corticosteroid drug such as prednisone. Relief should be almost immediate. If you are not feeling better in a few days, it is likely you do not have polymyalgia rheumatica. In fact, your response to medication is one way your doctor may confirm the diagnosis.

After the first month, when your sedimentation rate and platelet count have normalized, and any anemia is improved, your doctor will gradually start lowering the amount of cortisone you take until you reach the lowest possible dosage needed to control inflammation. Some of your symptoms may return during this tapering-off period. If so, tell your doctor so that your dosage can be adjusted appropriately.

The amount of time on medication varies from person to person. Most people are able to discontinue steroids within two years. Do not stop taking this medication on your own, however. Because corticosteroids suppress your body's natural production of cortisone, stopping suddenly can make you very ill.

At the same time, taking steroids, even in low doses, for long periods can lead to a number of side effects. This is especially true for older adults those most likely to be treated for polymyalgia rheumatica. That is because they are more prone to develop certain conditions that also may be caused by corticosteroids, such as:

- **Osteoporosis.** This condition causes bones to become so weak and brittle that even slight movements such as bending over, lifting a vacuum cleaner or coughing can cause a fracture. Older women are most at risk of osteoporosis, and taking steroid medications increases the risk. For this reason, your doctor is likely to monitor your bone density and may prescribe calcium and vitamin D supplements or other medications to help prevent bone loss.
- **High blood pressure (hypertension).** Long-term corticosteroid use can also raise blood pressure. Your doctor is likely to monitor your blood pressure and may recommend an exercise program, diet changes and sometimes medication to keep blood pressure within a normal range.
- **Cataracts.** Cortisone increases your risk of cataracts, a condition that causes the lens of the eye to become cloudy, impairing vision.

Other possible side effects of cortisone therapy include weight gain, decreased immune system function making you more prone to infections muscle weakness and high blood sugar levels, which may increase your risk of diabetes or worsen diabetes you already have.

Because of these risks, researchers are investigating other medications to treat polymyalgia rheumatica. Researchers have reported some success with a combination of the drug methotrexate and corticosteroids, but more research is needed to recommend this approach. In some cases, you and your doctor may decide that the balance of risks and benefits lies in favor of using NSAIDs to control symptoms, rather than corticosteroids.

Polymyalgia rheumatica (PMR) is a condition that is frequently linked to giant cell arteritis (GCA) ([link](#)). PMR occurs in about 50 % of patients who have GCA, while approximately 15% of patients with PMR develop GCA. There may be a common genetic component between the two disorders. PMR is almost exclusively a disease that affects older adults and is rarely diagnosed in people under the age of 50 years.

Symptoms: Symptoms of PMR almost always include aching and morning stiffness in the shoulders, hips, neck and mid-body. These symptoms usually affect both sides of the body the same, but can be stronger on one side than the other. Having difficulty with pain, stiffness and movement of the shoulders and hips can result in trouble with things such as getting dressed. Some patients also complain of general tiredness, weakness, weight loss (without trying to lose weight), and a low fever (a high spiking fever is rare).

Inflammation in the bones and joints cause the discomfort and stiffness (difficulty in moving) found among patients with PMR. Some patients develop swelling or fluid retention (edema) of the hands, wrists, ankles, and top of the feet. The edema usually occurs with other signs of PMR but can be the only symptom experienced.

Decreased ability to fully move the shoulders, neck and hips is frequent. Muscle strength is usually normal and the tenderness found about the shoulders is more likely due to inflammation in the shoulder bones. However, muscle weakness may become a problem over time because of the lack of use due to pain and stiffness.

The characteristic laboratory finding in both PMR and GCA is an elevation in the erythrocyte sedimentation rate. This rate measures how fast a patient's red blood cells settle when placed in a small tube.

Routine x-rays (radiographs) of joints with the disease rarely reveal any abnormalities, while magnetic resonance imaging (MRI) examinations can confirm the presence of inflammation. Ultrasounds

and Positron emission tomography (PET scanning) have also been used to confirm the PMR inflammation.

Since there is no specific test for PMR, a checklist that requires a certain group of symptoms and laboratory characteristics is used by doctors to make the diagnosis.

There is considerable overlap between PMR and GCA but patients with "pure" PMR lack the symptoms of GCA. Thus, a biopsy of the temporal artery, which is diagnostic for GCA, is not necessary in patients with PMR unless there are symptoms suggestive of GCA.

Treatment: The beneficial effect of corticosteroids (prednisone) in patients with PMR has been established by a combination of clinical experience and several research studies. Initial treatment most often starts with a dose of prednisone between 7.5 and 20 mg/day. Patients usually respond quickly but the dose is increased if the symptoms are not well controlled within one week. In some patients a single daily dose of prednisone does not provide relief from evening or night-time pain or stiffness while a divided dose (2 times a day, usually 12 hours apart) may be more helpful in reducing symptoms. The effective steroid dose is maintained for 2-4 weeks after the symptoms have resolved. The dose is then gradually lowered and stopped, with careful monitoring for return of symptoms.

Return of symptoms (relapse) occurs in as many as 25-50% of patients. Relapse is more likely to occur if the steroid dose is decreased too fast. If symptoms return, restarting or increasing the dose of corticosteroids is appropriate.

Side effects with corticosteroids: The risk of diabetes (abnormal glucose blood levels) and risk of fractures (small cracks) in the bones of the back, hip and neck are increased, especially with frequent use of this therapy. In patients who require corticosteroid treatment for more than six months, an assessment of bone density is suggested to test for osteoporosis (loss of bone thickness). To help protect bones from fractures and osteoporosis, calcium and vitamin D are often

taken regularly, and sometimes drugs such as bisphosphonates are given.

In patients who have side-effects from or a long history of taking corticosteroids, the use of methotrexate may allow the corticosteroid dose to be eliminated or lowered, however this has only been suggested by some, but not all, studies. Anti-inflammatory drugs such as ibuprofen can also be used to decrease painful symptoms, especially when symptoms are only mild, and may also help avoid use of corticosteroid treatment

Effort must be focused at control of symptoms with a minimum of drug-induced side effects. In most patients, symptoms of PMR will eventually end (over a period of months to years) and corticosteroid therapy can be discontinued.

Outlook (Prognosis)

Polymyalgia rheumatica usually resolves by itself, even when not treated, in 1 to 4 years. Symptoms diminish greatly with treatment. Most patients need steroid treatment for one or more years. There is no known prevention.