

Spotlight on Health

Autoimmune Muscle Inflammation

After working hard or exercising, muscles can become sore and tender. You may have pain, difficulty moving, swelling, redness, and warm skin (known as “inflammation”). Certain medicines, and illnesses like a cold or the flu, can cause these symptoms, too. This type of muscle soreness usually goes away with time.

However, some types of muscle pain and soreness don’t go away. This can be a sign of certain illnesses. In the diseases we will be talking about, your body mistakenly attacks and damages your own muscle. This type of illness is called autoimmune muscle inflammation. Fortunately, when these illnesses are found and treated early, permanent damage to muscles and other parts of the body can often be prevented.

This newsletter will help you understand these illnesses caused by attacks on your muscles and how the laboratory can help your healthcare provider find out if you have one of these illnesses.

What Is Autoimmune Muscle Inflammation?

The immune system protects your body from infections. One of the ways it does this is by making substances called “antibodies.” Antibodies get rid of germs that enter your body and make you sick. But sometimes the immune system stops working the way it should. In addition to attacking germs, it makes “self” antibodies or “*autoantibodies*” that attack parts of your own body.¹ When this happens, you have an “autoimmune” disease. In autoimmune muscle inflammation, your body mainly attacks your muscles.

The most common symptom of autoimmune muscle inflammation is muscle weakness that gets worse over a few weeks to a few months (see Sidebar). Muscles may also ache. The medical term for this muscle pain is “myositis.” Other parts of the body can be affected too. For example, certain rashes may appear on the skin. Arthritis may happen in the joints. Sometimes, attacks can damage the lungs, making it hard to breathe.²

There are 4 major types of autoimmune muscle inflammation^{1,3}:

- Polymyositis (PM)
- Dermatomyositis (DM)
- Immune-mediated necrotizing myopathy (NM)
- Inclusion body myositis (IBM)

A 5th kind is caused by a medicine:

- Statin-induced autoimmune myositis

Most types are more common in women than men; IBM is more common in men.⁴ Most people affected are 45 to 60 years old, although children can get DM (called juvenile DM).³ These diseases can also occur together with other autoimmune diseases you may have heard of, such as lupus and rheumatoid arthritis.^{1,3} DM can be associated with cancer.^{1,3}



Common Symptoms of Autoimmune Myositis

People with autoimmune myositis will often have^{3,4}

- Difficulty rising from a seated position
- Difficulty walking up stairs
- Difficulty lifting up the arms
- Problems swallowing or breathing
- Unexplained muscle soreness or pain

Additional Information

For more information, visit the Myositis Association (Myositis.org), or these helpful websites:

- Medline Plus: MedlinePlus.gov/myositis.html
- Myositis Support and Understanding: UnderstandingMyositis.org/myositis/
- WebMD: WebMD.com/a-to-z-guides/myositis-symptoms-treatments-prognosis#1
- Inclusion Body Myositis Foundation: IBMFoundation.org/

A Rare Disease Caused by a Cholesterol Medicine

Statin medicines, or statins, reduce cholesterol in the blood to help prevent heart disease. Once in a while people who take statins get severe muscle aches and pain. This is called “statin-induced autoimmune myositis.” Some foods also contain statins (for example, certain types of oyster mushrooms).⁵ It does not happen very often, but some people who eat these foods can develop this illness even if they have never taken the medicine.⁵

What You Can Do

If you begin to have muscle weakness not caused by a cold, flu, or hard physical work or exercise, you should see your healthcare provider. Let them know about other symptoms such as rashes, arthritis, or trouble breathing, and if you're taking statin medicines.

Diseases that cause your body to attack your muscles are not common but can be very serious. So it is important to talk to your healthcare provider as soon as possible.

How Your Healthcare Provider Can Help

Your healthcare provider may ask you about your medical history. They may also do a physical examination. If they think you may have an autoimmune disease, they'll order blood tests.^{6,7} If you have one of these illnesses, your healthcare provider may prescribe medicine that stops the body from attacking itself. This can help stop damage to your muscles and other parts of the body.³

Autoimmune myositis from statins is very serious. For patients with statin-induced myositis, their doctor may ask them to stop taking their statins. They may also prescribe drugs that “turn off” the immune system, to stop the body from attacking itself.⁵

How the Laboratory Can Help

Quest Diagnostics offers blood tests that find certain attacking antibodies, and also offers tests that can show whether there is damage to muscles. These tests can help your doctor tell if your pain is due to one of these illnesses. Many of these tests are called “panels” because they look for signs of many illnesses at the same time. There are also tests to find other causes for your symptoms.

References

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Model used for illustrative purposes

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