

# Could one of these disorders be the cause of your muscle weakness and fatigue?

## LEMS

Lambert-Eaton myasthenic syndrome (LEMS)

## AChR-MG\*

Myasthenia gravis with antibodies to acetylcholine receptors (AChR)

\*AChR-MG is the most common form of myasthenia gravis.

## MuSK-MG

Myasthenia gravis with antibodies to muscle-specific kinase (MuSK)

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LEMS, AChR-MG, and MuSK-MG are neuromuscular disorders with **several common features**

### ALL 3 CONDITIONS ARE AUTOIMMUNE DISORDERS



Autoimmune disorders are conditions caused by the body's immune system attacking itself. LEMS, AChR-MG, and MuSK-MG are neuromuscular disorders that occur when special proteins called **antibodies disrupt communication between nerves and muscles, which prevents muscles from working properly.**

### FIRST SYMPTOMS USUALLY APPEAR IN MIDDLE ADULTHOOD



Symptoms of LEMS, AChR-MG, and MuSK-MG generally appear between **ages 35–55.**

### ALL 3 DISORDERS CAN BE SPECIFICALLY DIAGNOSED USING THESE TESTING METHODS



**A physical exam** to test for symptoms and reflexes



**A blood test** to check for certain antibodies unique to each disorder



**An electrodiagnostic test** to measure how well muscles and nerves are functioning

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Questions that may help answer whether your symptoms could be a sign of LEMS, AChR-MG, or MuSK-MG

### WHERE DID IT START?

**AChR-MG** usually affects the eyes first, causing drooping eyelids and double vision, as well as fatigue and upper body weakness



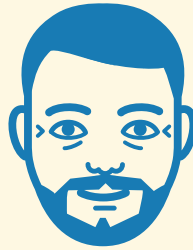
**MuSK-MG** usually affects the face and neck muscles first, causing difficulties with speech, swallowing, and vision

**LEMS** usually affects the lower body first, causing leg weakness, and then may spread up the body, causing arm weakness, dry mouth, and vision problems

## ARE YOUR EYES OR MOUTH DRY?




**LEMS** can affect saliva and tear production, often leading to dry mouth and/or dry eyes




**AChR-MG and MuSK-MG** do not typically affect saliva or tear production

## HOW ARE YOUR REFLEXES?





 **LEMS** patients have decreased or no reflexes

 **AChR-MG and MuSK-MG** do not usually affect tendon reflexes, such as the “knee-jerk reaction”

## DOES EXERCISE HELP?



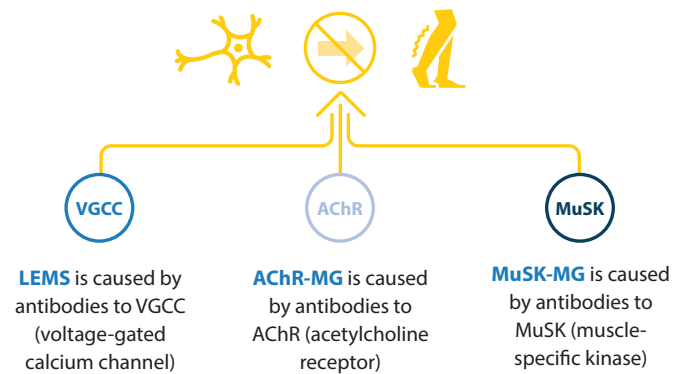
 **LEMS** symptoms, specifically muscle strength and tendon reflexes, may improve slightly and temporarily when exercising, only to weaken as exercise continues

 **AChR-MG and MuSK-MG** symptoms usually get worse with exercise

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Different disorders require **different medicines**

While LEMS, AChR-MG, and MuSK-MG are all neuromuscular disorders, each has a unique underlying cause—**different antibodies that target and disrupt unique pathways between nerves and muscles**. For that reason, these disorders respond best to medicines that target the different underlying causes. Your doctor will prescribe the right medicine for your particular condition to help restore normal nerve communication and muscle function.



**Talk to your doctor about your symptoms** and about which diagnostic tests or treatments may be right for you.

