Lambert-Eaton Myasthenic Syndrome (LEMS) is a rare autoimmune disorder that causes progressive, debilitating muscle weakness, particularly in the legs.¹

Without enough ACh, muscles are unable to contract properly resulting in muscle weakness. Non-functioning calcium channels prevent the release of acetylcholine (ACh) – a chemical that sends messages between nerves and muscles. The immune system attacks calcium channels on nerve endings.

LEMS is caused by an immune system attack at the neuromuscular junction — the connection between nerve and muscle cells.²

Who gets LEMS?

LEMS is rare... About 3,000 people in the U.S. have LEMS.³

There are two types LEMS:

Autoimmune
50%
- Unknown cause
- Usually 40 years or older
- Can occur at any age

Paraneoplastic
50%
- Linked to cancer, usually small-cell lung cancer
- Typically have a history of smoking
- Generally 50 years or older

LEMS Symptoms¹⁴
Progressive muscle weakness is the main symptom and most commonly affects the legs and hips.

Other symptoms include:
- Constipation
- Difficulty swallowing
- Dry mouth
- Fatigue
- Impotence
- Slurred speech
- Tingling sensations
- Trouble with vision
- Weakness in the eye and neck muscles

Non-functioning calcium channel
Living with LEMS

LEMS impacts the ability to do simple, everyday activities:

- Climbing steps
- Getting out of bed
- Getting into or out of the car
- Standing up from a seated position
- Lifting objects
- Talking
- Chewing
- Swallowing

People with LEMS say it feels like ...
“having a lead apron on”
“walking through water”
“being glued to a chair”

Diagnosis

LEMS is diagnosed through:
- A physical exam, including evaluation of reflexes
- Bloodwork to test for certain antibodies
- Electrodiagnostic tests to assess the health of muscles and the nerve cells that control them

LEMS may be misdiagnosed. It can be mistaken for other diseases such as fibromyalgia, lupus, myasthenia gravis (MG), and multiple sclerosis.

It is also important for people with LEMS to get tested for cancer.

References