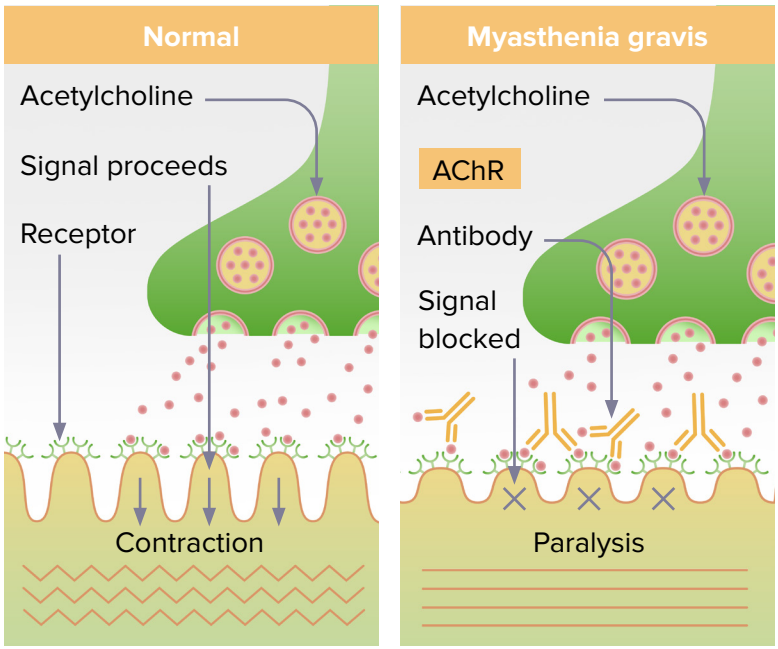
MYASTHENIA GRAVIS

Myasthenia gravis (MG) is a chronic autoimmune condition that affects a person's muscles and nerves. MG is often hallmarked by the sudden onset of fatigue and muscle weakness that worsens after activity and improves with rest.



Acetylcholine is a neurotransmitter used at the neuromuscular junction and regulates muscular movement.

It is also the primary neurotransmitter of the parasympathetic nervous system.

When a patient has MG, AChR antibodies inhibit muscle contraction by blocking, altering, or destroying acetylcholine receptors at the neuromuscular junction.

NURSING NOTE:

The thymus gland controls immune function and may be associated with myasthenia gravis. It grows gradually until puberty, and then gets smaller and is replaced by fat. In many adults with myasthenia gravis, the thymus gland remains large and clusters of immune cells may grow to form thymomas.

Common Signs and Symptoms

- Drooping eyelids (ptosis)
- Blurred vision (diplopia)
- Difficulty swallowing (dysphagia)
- Shortness of breath (dyspnea)
- Difficulty speaking (dysarthria)
- Muscle weakness

Ways to Test for MG

- Physical exam
- Neurological exam
- Blood test: Patients with MG often have high levels of AChR antibodies.
- Diagnostic imaging, e.g. MRI or CT scans
- Edrophonium test (tensilon test)
- Electrodiagnostics, e.g. single fiber electromyography (EMG)
- Pulmonary function test

MG was historically seen as a fatal condition. Now, common MG management options include:		
Cholinesterase inhibitors, e.g. pyridostigmine	Corticosteroids, e.g. prednisone	Immunosuppressants, e.g. azathioprine
Plasmapheresis (blood-filtering procedure)	Thymectomy (surgical thymus removal)	Monoclonal antibodies, e.g. rituximab

NOTES