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# Myasthenia gravis

## What is myasthenia gravis?

Myasthenia gravis or simply 'myasthenia' is a disorder of neuromuscular junction. This is an area where nerves end and send signal across the junction to control muscles.

## Why does myasthenia gravis happen?

Myasthenia gravis is a type of [autoimmune disorders](#). Autoimmune disorders occur when your own immune system mistakenly attacks normal healthy tissues. In myasthenia gravis, the body produces antibodies that act at neuromuscular junction and block signals going from the nerve to muscles. This makes the muscles weak.

The exact cause of myasthenia gravis is unknown. In some patients, it may be associated with abnormalities the thymus which is gland located in chest.

## What are the symptoms of myasthenia gravis?

Myasthenia gravis causes weakness of the muscles. The muscle weakness of myasthenia gravis worsens with activity and improves after rest. The muscle weakness can lead to following symptoms:

- Double vision
- Drooping of eyelid
- Difficulty in speaking
- Difficulty in chewing
- Difficulty in swallowing water
- Difficulty climbing stairs, lifting objects, or rising from a seated position
- Difficulty in breathing
- [Fatigue](#)

## How is myasthenia gravis diagnosed?

Your doctor will ask you questions and then will perform physical examination. He/she may order certain tests for confirmation of diagnosis. These include:

- Blood test to find out antibody ([Acetylcholine receptor antibody](#))
- [CT](#) or [MRI](#) scan of the chest to look for abnormalities in thymus



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- Injection (Neostigmine) test to see if the features improve after injection
- [Nerve conduction studies](#)

Remember that the diagnosis of myasthenia gravis may be difficult and your doctor may require some time for the correct diagnosis.

### **How is myasthenia gravis treated?**

Treatment of myasthenia gravis varies from case to case. Depending on your age, severity of disease, and other diseases, your doctor may opt for one or more of these treatment options:

- Pyridostigmine
- Steroids
- Drugs to suppress immunity (immunosuppressant)
- Surgery to remove thymus gland
- Plasmapheresis (a treatment akin to dialysis; usually reserved for severe cases)

The duration of treatment will vary from case to case. Even the best treatment option at a given time will vary. Thus your doctor will decide what is best for you at a given point of time. You may be required to get admitted in a hospital if your doctor thinks so.

Lifestyle changes are important in myasthenia gravis to continue your daily activities. As the symptoms worsen after activity, taking rest in between work is recommended.

### **What are dos and don'ts in myasthenia gravis?**

- Remain as active as possible, but take rest frequently and avoid exertion.
- Avoid food that requires excessive chewing.
- Use an eye patch if double vision is bothersome.
- Avoid stress and heat exposure, which can make symptoms worse.
- Take medications regularly and follow up regularly with your doctor.
- If you visit any other doctor for other reasons, inform him/her that you are suffering from myasthenia.
- If you are prescribed any new medicine, please check if it is allowed in myasthenia gravis.

### **Which are the medicines to be avoided in myasthenia gravis?**



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Certain medicines are known to worsen myasthenia gravis and you should be aware of list of these medicines which are to be avoided or used with caution. Please make sure that you carry these lists with you and inform any other doctor about these medicines.

### Where can I get some additional information about myasthenia gravis ?

- [http://www.ninds.nih.gov/disorders/myasthenia\\_gravis/detail\\_myasthenia\\_gravis.htm](http://www.ninds.nih.gov/disorders/myasthenia_gravis/detail_myasthenia_gravis.htm)
- <http://www.myasthenia.org/>

#### Medicines to be **avoided** in myasthenia gravis

- Aminoglycoside antibiotics
- Antimalarials
- Antiarrhythmic
- benzodiazepines
- Opiates
- Penicillamine
- Magnesium
- Paralyzing agents

#### Medicines to be **used with caution** in myasthenia gravis

- Macrolide antibiotics
- Beta blockers
- Calcium channel blockers
- Statins
- Diuretics
- Anticholinergics