

INFORMATION FOR PATIENTS

Myasthenia gravis

What is myasthenia gravis?

Myasthenia gravis (MG) is a rare, long-term condition that causes muscle weakness. It occurs when the body's immune system mistakenly attacks the connections between nerves and muscles, preventing nerve signals from being properly transmitted to the muscles. As a result, muscles become weak and tire more easily. MG can affect any voluntary muscle in the body, but it most commonly affects the muscles that control the eyes, face, and swallowing.

How does MG affect the eyes?

The eyes are often the first muscles to show symptoms of MG, and the condition can have a significant impact on vision. The following are common eye-related symptoms of MG:

- **Ptosis (drooping eyelids)**
One of the most common signs of MG, ptosis occurs when the eyelids droop, which may be more noticeable at the end of the day or after prolonged use of the eye muscles.
- **Diplopia (double vision)**
Weakness in the muscles that control eye movement can cause double vision. This happens because the eyes may not be able to align properly, resulting in two images instead of one. Double vision may improve when you rest your eyes, but it can be troublesome if it persists.

- **Blurred vision**

In some cases, MG can lead to blurred vision, caused by weakness in the muscles that help focus the eyes.

General effects of MG

While MG can affect any muscle in the body, it is important to note that it most commonly impacts muscles involved in movement and breathing. General symptoms of MG can include:

- **Muscle weakness**
This can occur in various parts of the body, including the arms, legs, face, and neck. This weakness is usually worse with activity and improves with rest.
- **Fatigue**
People with MG often experience general fatigue. The muscles become tired more quickly than normal, making it difficult to engage in physical activities for extended periods.
- **Difficulty swallowing and speaking**
Weakness in the muscles used for swallowing (dysphagia) and speaking (dysarthria) can occur, which may lead to difficulty eating, drinking, or speaking clearly.
- **Breathing difficulties**
In more severe cases of MG, weakness in the muscles that control breathing can be life-threatening. This can lead to shortness of breath and the need for mechanical ventilation in extreme cases.

How is MG diagnosed?

Your doctor may diagnose MG through:

- Physical and neurological exams to check for muscle weakness, drooping eyelids, and double vision.
- Blood tests to look for antibodies that attack the neuromuscular junction.
- Electromyography (EMG). A test to measure the electrical activity in muscles.
- Imaging tests such as a CT or MRI scan to check for thymoma (a tumour of the thymus gland that may be associated with MG).

How is MG treated?

While there is no cure for MG, several treatments can help manage symptoms and improve quality of life:

- **Medications:**
 - Acetylcholinesterase inhibitors (e.g., pyridostigmine). These drugs improve communication between nerves and muscles, helping to relieve muscle weakness.
 - Immunosuppressive drugs (e.g., prednisone). These help suppress the immune system's abnormal response, reducing the production of antibodies that attack the neuromuscular junction.
- **Thymectomy**
Surgery to remove the thymus gland may be recommended for some people with MG, especially those with a thymoma.
- **Eye care:**
 - For individuals experiencing ptosis or dry eyes, an eye patch or lubricating eye drops may provide relief.

- Glasses or prisms: Special glasses with prisms may help correct double vision.

- **Lifestyle adjustments**

Managing fatigue and weakness by balancing rest and activity, avoiding triggers like heat and stress, and staying hydrated can help maintain energy levels.

- **Plasmapheresis and intravenous immunoglobulin (IVIg)**

These treatments may be used in severe cases or during a crisis to remove harmful antibodies or modify the immune response.

What to expect in the long term

The severity of MG varies widely between individuals. Some people may experience only mild symptoms, while others may have more severe effects.

With appropriate treatment, many individuals with MG can lead active, fulfilling lives, although some may have ongoing weakness and fatigue. Regular follow-ups with your healthcare provider are important to monitor and adjust treatment plans.

When to seek medical help

It is important to seek immediate medical attention in your nearest Emergency Department if you experience:

- Sudden worsening of weakness or difficulty breathing.
- Difficulty swallowing or speaking.
- Rapid deterioration of vision or worsening double vision.

Contact details

If you have any queries or notice any changes to your eyes that you think are MG related, please call the Ophthalmology Department at King's Mill Hospital:

- **01623 622515. extension 2359** for general eye symptoms.
- **07768 615247 / 07825 866704** for double vision symptoms.

Further sources of information

NHS Choices: www.nhs.uk/conditions

Our website: www.sfh-tr.nhs.uk

Patient Experience Team (PET)

PET is available to help with any of your compliments, concerns or complaints, and will ensure a prompt and efficient service.

King's Mill Hospital: 01623 672222

Newark Hospital: 01636 685692

Email: sfh-tr.PET@nhs.net

If you would like this information in an alternative format, for example large print or easy read, or if you need help with communicating with us, for example because you use British Sign Language, please let us know. You can call the Patient Experience Team on 01623 672222 or email sfh-tr.PET@nhs.net.

This document is intended for information purposes only and should not replace advice that your relevant health professional would give you.

External websites may be referred to in specific cases. Any external websites are provided for your information and convenience. We cannot accept responsibility for the information found on them.

If you require a full list of references for this leaflet (if relevant) please email sfh-tr.patientinformation@nhs.net or telephone 01623 622515, extension 6927.

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