

**Myasthenia gravis (MG)** is an autoimmune neuromuscular disorder. It is characterized by fluctuating weakness of voluntary muscle groups. Muscle groups most commonly affected include the eye muscles, facial, chewing and swallowing muscles, and shoulder and hip muscles. Muscles that assist breathing may be affected also.

**MG signs and symptoms** may include drooping eyelids, double vision, slurred speech, nasal quality to speech, inability to speak, drooling, nasal regurgitation, weak cough, problems chewing and/or swallowing, choking, trouble sitting up or holding head erect, trouble walking, feeling short of breath.

**Medical emergencies (“crises”)** are rare, but may occur when the muscles that support respirations are so weak that breathing becomes very difficult. Respirations may be shallow and ineffective. The airway may become obstructed due to weakened throat muscles and accumulated secretions.

**FAILURE TO TREAT SYMPTOMS PROMPTLY CAN RESULT IN POOR AIR EXCHANGE AND RESPIRATORY INSUFFICIENCY OR ARREST.**

[www.myasthenia.org](http://www.myasthenia.org)  
800.541.5454

**The MGFA mission is to facilitate the timely diagnosis and optimal care of individuals affected by myasthenia gravis and closely related disorders and to improve their lives through programs of patient services, public information, medical research, professional education, advocacy and patient care.**

This publication is intended to provide the reader with general information to be used solely for educational purposes. As such, it does not address individual patient needs, and should not be used as a basis for decision making concerning diagnosis, care, or treatment of any condition. Instead, such decisions should be based upon the advice of a physician or health care professional who is directly familiar with the patient. The information contained in this publication reflects the views of the authors, but not necessarily those of the Myasthenia Gravis Foundation of America (MGFA). Any reference to a particular product, source, or use does not constitute an endorsement.

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# Emergency Management

**M G**  
**Important information for the patient, family, emergency medical technician, nurse, and emergency department personnel.**  
**F A**



[www.myasthenia.org](http://www.myasthenia.org)



### Clinical Manifestations of MG

- MG weakness occurs in specific muscles or muscle groups.
- MG weakness may fluctuate over time and during the course of the day.
- Individuals with MG are usually stronger in the morning.
- MG weakness increases after prolonged use of the affected muscles.
- MG symptoms may worsen with emotional upset, systemic illness, fever, surgery, menses, pregnancy, thyroid dysfunction and drugs affecting neurotransmission.

### Crisis

Although a rare occurrence, “crisis” occurs when the individual with MG is unable to breathe or swallow adequately.

“Myasthenic crisis” may result from factors that exacerbate the weakness of the disorder.

“Cholinergic crisis” may result from anticholinesterase overdose. A commonly prescribed anticholinesterase drug is pyridostigmine (Mestinon®).

### General Treatment Guidelines

- Avoid lengthy questioning, as it may unduly fatigue the individual with MG.
- Administration of narcotics may worsen symptoms of MG and further compromise breathing.

**SEEK MEDICAL CARE EARLY  
TO PREVENT EMERGENCIES.  
MAINTAIN AN OPEN AIRWAY.  
SUPPORT AIR EXCHANGE.  
TRANSPORT TO HOSPITAL IMMEDIATELY.**

### SEVERE RESPIRATORY DIFFICULTY

Subjective findings may include shortness of breath at rest, air hunger, inability to lay flat, anxiety, restlessness, fatigue

#### Evaluate

- Airway patency
- Strength of cough
- Respiratory rate & effort
- Cardiac status
- Skin and nailbed color and temperature
- Mental status

Physical examination may reveal skin and nailbed color changes (pale to cyanotic), cool and moist skin, weak cough, rapid heart rate, increased blood pressure, rapid or shallow respirations, confusion, lethargy.

#### First Responder Management

- Keep airway open.
- Suction pooled oral secretions as needed.
- Elevate head and shoulders.
- Keep a calm and peaceful atmosphere.
- Support respirations if needed.

### SEVERE SWALLOWING DIFFICULTY

Subjective findings may include gagging, choking, inability to swallow medications or food, anxiety, restlessness.

#### Evaluate

- Airway patency
- Pooled oral secretions or retained food
- Strength of cough
- Respiratory rate and effort
- Cardiac status
- Speech effort and quality

Physical examination may reveal drooling, weak cough, pooled secretions, retained food in the mouth, rattling sounds in the throat or chest, slurred or absent speech.

#### First Responder Management

- If actively choking, open mouth and remove any visible food particles.
- Perform Heimlich maneuver only if foreign body (food or other object) obstruction in airway is suspected.
- Keep airway open.
- Suction pooled oral secretions as needed.
- Keep a calm and peaceful atmosphere.