

Myasthenia Gravis Awareness Month



An Introduction

Myasthenia Gravis comes from the Greek and Latin words meaning "grave muscular weakness."

Myasthenia Gravis occurs in all races, both genders, and at any age. MG is not thought to be directly inherited nor is it contagious. It does occasionally occur in more than one member of the same family.

How it Affects Your Body

The voluntary muscles of the entire body are controlled by nerve impulses that arise in the brain. These nerve impulses travel down the nerves to the place where the nerves meet the muscle fibers. Nerve fibers do not actually connect with muscle fibers. There is a space between the nerve ending and muscle fiber; this space is called the neuromuscular junction.

When the nerve impulse originating in the brain arrives at the nerve ending, it releases a chemical called acetylcholine. Acetylcholine travels across the space to the muscle fiber side of the neuromuscular junction where it attaches to many receptor sites. The muscle contracts when enough of the receptor sites have been activated by the acetylcholine. In MG, there is as much as an 80% reduction in the number of these receptor sites. The reduction in the number of receptor sites is caused by an antibody that destroys or blocks the receptor site.

Antibodies are proteins that play an important role in the immune system. They are normally directed at foreign proteins called antigens that attack the

body. Such foreign proteins include bacteria and viruses. Antibodies help the body to protect itself from these foreign proteins. For reasons not well understood, the immune system of the person with MG makes antibodies against the receptor sites of the neuromuscular junction. Abnormal antibodies can be measured in the blood of many people with MG. The antibodies destroy the receptor sites more rapidly than the body can replace them. Muscle weakness occurs when acetylcholine cannot activate enough receptor sites at the neuromuscular junction.

Common symptoms can include:

- * A drooping eyelid
- * Blurred or double vision
- * Slurred speech
- * Difficulty chewing and swallowing
- * Weakness in the arms and legs
- * Chronic muscle fatigue
- * Difficulty breathing

Treatment Options

There is no known cure for MG, but there are effective treatments that allow many-but not all-people with MG to lead full lives. Common treatments include medications, thymectomy (surgical removal of the thymus gland) and plasmapheresis (plasma exchange-removes the abnormal antibodies from the plasma of the blood). Spontaneous improvement and even remission may occur without specific therapy.

Source: <http://www.myasthenia.org>

Courtesy of Wellness Proposals