



# NAVY ENVIRONMENTAL HEALTH CENTER

## Guillain-Barré Syndrome

Public Health Fact Sheet

May 2005

*Guillain-Barré (Ghee-yan Bah-ray) Syndrome (GBS) is a rare disease in which the body's immune system damages its own nerve cells outside of the brain and spinal cord. Although most cases are mild, a few patients are nearly paralyzed. Muscles used to breathe may become so weak that a machine is required to help the patient breathe. The exact cause of this disease is unknown, but is thought to be related to an immune system reaction. Although there is no cure, there are treatments available to help lessen the severity of symptoms and speed up the recovery time. Typically, the symptoms last a few weeks and then gradually go away. Most people recover from even the most severe cases of GBS, although some people continue to have some weakness. Less than 5% of GBS patients die.*

### People at risk of contracting GBS

GBS occurs world-wide and can affect anyone. Although rare, GBS is the most common cause of rapidly acquired paralysis in the United States today, affecting one to two people in every 100,000. It is found within every race. Slightly more cases are seen in males than females. Older people are somewhat more likely to contract GBS than younger people.

### Cause

The cause is not known, however it is an area of active research. Usually, GBS occurs a few days or weeks after a bacterial or viral infection, most commonly an upper respiratory infection. Other reported triggers include immunizations or surgery. The most accepted theory is that this is a type of autoimmune disease. This means that the body's immune system attacks the body itself.

The disorder struck a number of people who received the 1976 Swine Flu

vaccine. Since then, several studies have been done to evaluate the safety of flu vaccines. Only one study suggested an association between GBS and taking the flu vaccine. That study suggested that one person out of a million might be at an increased risk of GBS after receiving the vaccine. Recently, the Centers for Disease Control and Prevention (CDC) examined the number of GBS cases reported in adults who received a flu vaccine between July 1990 and June 2003. The CDC study found that the number of cases of Guillain-Barre syndrome that occurred following a flu vaccine has decreased dramatically (fourfold) in the last 12 years.

### Symptoms

GBS usually begins with weakness or tingling sensation in the legs. Many times, the weakness and tingling spread to the arms and upper body. Although many cases are mild, some patients are nearly paralyzed. Breathing muscles may become so weak that a machine is required to help the patient breathe. After the first symptoms appear, the

disorder can develop over the course of hours or days, or as long as to 3 to 4 weeks. Most people reach the stage of greatest weakness within the first 3 weeks after symptoms appear.

### Treatment

There is no known cure for Guillain-Barre syndrome, but there are a number of treatments that will reduce the severity of the illness and hasten recovery in most patients. General supportive measures are important for all patients. Currently there are two therapies that may be helpful in shortening the course of GBS. The first is plasma exchange (a blood "cleansing" procedure) and the other is immunoglobulin, a medication that works on the immune system. Because the disease is unpredictable in its early stages, some newly diagnosed patients are hospitalized to monitor breathing and other body functions. As the patient starts to recover, physical therapy will begin to help patients' learn how to use their muscles again. Scientists in many different specialties are working together to find new treatments and refine existing ones.

Please discuss your concerns and questions about GBS with your personal physician.

More information can be found at:

<http://www.guillain-barre.com/>

<http://www.ninds.nih.gov/disorders/gbs/gbs.htm>

<http://www.nlm.nih.gov/medlineplus/guillainbarresyndrome.html>

*If you have additional questions or think you would like more information, contact:*

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