

Guillain-Barré Syndrome

What is Guillain-Barré syndrome (GBS)?

'Guillain-Barré syndrome' (pronounced Ghee-yan Bar-ray), or GBS, is a disorder in which the body's immune system attacks the nerves that carry the signals between your body and your brain. The nerves' protective covering (myelin sheath) is damaged. The nerves in the arms and legs become inflamed and stop working. This causes muscle weakness and limb paralysis. As well, patients may lose feeling in their arms and legs, sometimes with pain.

Who can get GBS?

Anyone around the world – young or old, male or female – can get GBS. The illness is not hereditary.

What causes GBS?

The cause of Guillain-Barré syndrome is not known. Scientists believe that the body's immune system begins to attack the body itself, causing what is known as an autoimmune disorder. A number of different events seem to trigger the illness.

Approximately 50% of cases occur a few days to a few weeks after an infection. These infections include the common cold, sore throat, infectious mononucleosis, influenza, and viral hepatitis. GBS may also follow infections with stomach and intestinal viruses or bacteria that cause vomiting and diarrhea.

Other cases of GBS have occurred with a rare disease of red blood cells called porphyria. Some cases have occurred after such seemingly unrelated events such as surgery, insect stings and various injections, including vaccines. Although many illnesses or other events seem to trigger Guillain-Barré syndrome, why the disorder occurs in certain people is still not known.

Is GBS contagious?

No, GBS is not contagious. However, because Guillain-Barré syndrome often follows a viral or bacterial illness, it is sometimes mistakenly thought to be contagious.

In fact, there is no evidence that GBS is passed from person to person. Often the virus or bacteria that caused the initial illness is no longer present when the syndrome appears.

Can vaccines cause GBS?

In the same way that GBS may follow a natural infection, **rare** cases of Guillain-Barré syndrome have also followed vaccination with tetanus toxoid,

BCG, rabies, smallpox, mumps, rubella, poliovirus, hepatitis B vaccines, and also with meningococcal conjugate vaccine - Menactra™.

What are the symptoms of GBS?

The first symptoms of GBS are usually tingling and numbness in the fingers and toes. This tingling is followed by increasing weakness in the legs during the next few days. In the mildest of cases, the weakness may stop at this point and cause only moderate difficulty in walking.

In many cases, the weakness and tingling also spreads to the arms and upper body. In some cases the weakness spreads further and leads to complete paralysis of the legs and arms.

In a quarter of cases, the paralysis progresses up the chest. The patient is unable to breathe on his or her own and needs to rely on a mechanical breathing machine (ventilator). The muscles in the throat and face may be affected, making swallowing impossible.

How is GBS diagnosed?

The illness is diagnosed from the history and clinical examination. Diagnosis is difficult because the symptoms may be confused with those of other conditions.

Two types of confirmatory tests may be helpful and are performed in most cases:

- lumbar puncture
- nerve function tests

What is the treatment for GBS?

GBS is self-limiting and usually improves with medical care and physiotherapy. Different treatment options can be discussed with a physician.

Do people recover from GBS?

Most people make a total recovery. However, some may require hospitalization.

A small number of people with GBS still have some weakness in the affected muscles three years after they first became ill. A small number are unable to resume their normal occupation.

Where can I get more information about GBS?

For more information about GBS, talk to your healthcare provider or contact the Halton Region Health Department.