

Center for Athletic Medicine

830 W Diversey #300

Chicago IL 606014

773 248 4150

What is a stinger?

A "stinger" is an injury to one or more nerves between your neck and shoulder in an area known as the "brachial plexus". It is known by several other names including "burner," "nerve pinch injury," and brachial plexopathy. While it is an injury to the nerves that come off the spinal cord, it is not a true spinal cord injury. Prognosis is usually excellent.

What causes a stinger?

Any impact to the shoulder that damages or stretches the nerves can cause a stinger. It is most common in football but can happen with any contact sport. There are 3 common mechanisms:

- 1) Direct impact to the area between the neck and the collarbone, which bruises the nerves underneath.
- 2) The shoulder is pushed in a downward direction while the head is moved to the opposite side. This causes a stretch of the nerves.
- 3) The head is rapidly forced to one side, pinching the nerves.

What are the symptoms of a stinger?

The injury gets its name from the main symptom of stinging, burning pain between the neck and shoulder. The sensation may also shoot down the arm on the affected side. Typically this lasts only for a few seconds, but may last as long as 15 minutes. There may be numbness and/or weakness of the affected shoulder and arm. The weakness may persist for several weeks.

If there is pain in the neck, limitation of neck motion, or the pain radiates to both arms, the injury is not a stinger. These symptoms may be a sign of a more significant neck injury.

How are stingers treated?

Time usually allows the damaged nerves to heal themselves. Contact sports should not be allowed until weakness resolves. Physical therapy can help to stretch and strengthen your muscles and prevent future injuries. However, it should be properly supervised by an athletic trainer or physical therapist. Beginning strengthening exercises too soon can cause damage to the newly forming nerve tissues.

Some stingers last only a few minutes but some can take days or even weeks to heal. If the symptoms of a stinger do not resolve within 15 minutes an evaluation by a physician is advised. Diagnostic studies such as Xrays or an MRI may be necessary to evaluate for a more significant neck injury. An electromyogram (EMG) may also be performed, especially if symptoms persist for longer than a 3 or 4 weeks. The EMG measures nerve function. It can confirm the presence of a stinger, identify which nerve root is affected, and grade the severity of the injury. This can help to provide a prognosis and time frame for recovery.

When can I return to sports after a stinger?

Before being cleared to return to sports, there must be no pain, numbness or tingling. Additionally, there must be full strength of the muscles and full range of motion in the neck.

How can stingers be prevented?

Stretching and strengthening the muscles of the neck may help to prevent stingers. In addition, for football players, special equipment is available which may help prevent stingers. A "lifter" can be placed under the shoulder pads to better cushion blows to the area. A neck roll or cowboy collar can be used to limit excessive neck motion.

Recurrent stingers (more than 3) may be a sign of a more significant neck injury, and should be evaluated by a sports medicine specialist.

Center for Athletic Medicine