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Stingers and Burners

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Many athletes recall taking a bad hit or landing on their shoulder or neck in a strange way and feeling a sudden painful electrical sensation down the arm. Sometimes this disappears as quickly as it came, or lingers for several minutes. This is sometimes called a stinger or burner, and results from an injury to the nervous system.

Mechanism:

Contact sports are the culprit in the majority of stingers. Often the head is forced away from the shoulder, stretching the nerves in the neck or upper chest. This can occur while making a tackle, or when landing on the side of one's head during wrestling. It can be caused by hyperextension of the neck, as in a football tackle. Less often, it can be caused by the arm being wrenched upward, stretching the nerves as they traverse under the collar bone, through the armpit and to their targets in the arm and hand. Also, a direct blow above the collarbone can cause a stinger.

Symptoms:

Players are usually contact sport athletes who relate one of the above mechanisms of injury. They may feel neck or shoulder pain, with pain radiating down the arm into the forearm or hand. This may feel electrical or tingling in nature, or like a buzzing, or sharp pain. Sensation or strength (especially in shoulder elevation and elbow flexion) in the extremity may be diminished. Loss of consciousness is a sign of a more serious injury such as concussion or spinal cord injury.

Treatment:

Players should be evaluated after any stinger. Range of motion, sensation of the arm and hand, and strength should be tested. If there are concerns of a head injury, mental status examination and a full evaluation is performed. Obviously, any type of suspected spinal cord injury should be evaluated by a medical professional on the field and is beyond the scope of this article. No player with neck pain should return to the game without evaluation by qualified medical staff.

For a first-time stinger, the athlete can return to play when they demonstrate full range of motion and strength, and only if the pain down the arm is absent. If neck pain is absent, one should also try to elicit reproduction of the stinger by performing resisted neck motion and compression. Recurrence of symptoms keeps the athlete on the sideline. For athletes with multiple (3) episodes of stingers in the same season, consideration may be given to abandoning the season or sport.

Symptoms lasting more than 2 days should be referred to a physician. An MRI of the neck or nerve test (EMG) may be performed.

Prevention:

Proper weight-training and posture can perhaps help to decrease the incidence of stingers.

In football, cowboy collars and other pads can decrease stingers associated with neck extension but may increase the risk of tackling with the head down.

Dr. Bremner's practice encompasses all areas of orthopaedics. He has special interest in joint replacement, arthroscopic surgery, sports medicine and trauma. He also offers minimally invasive [Direct Anterior Hip Replacement](#). To reach Dr. Bremner or to schedule an appointment please phone 515-299-6363. Dr. Bremner's primary office location is DMOS – East; with satellite services available at DMOS – West.