Burners and Stingers

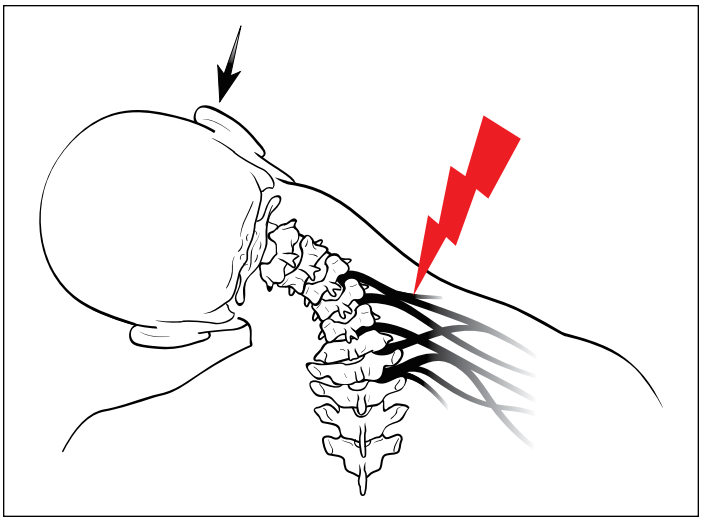
Burners and stingers are intense pains that occur when the nerves that run from the neck to the arm are stretched or compressed. This typically occurs in contact or collision sports where the shoulder may be pushed backward or the head and neck is forcibly pushed to the side. Burners are most common in football players but are also common in those who participate in hockey, wrestling, lacrosse, and diving. The term *burner* will be used in this handout to refer to both burners and stingers.

Symptoms

Athletes who have just sustained a burner will typically hold their arm limply at their sides or be observed shaking their arm to get rid of the tingling or burning sensation. A burning or stinging pain runs from the neck and shoulder down the arm even into the hand. In addition to the burning pain, it may feel like the arm has fallen asleep or like "pins and needles." There may also be weakness in the shoulder and arm. Neck pain and spasm typically follow an injury that leads to a burner, but pain over the bones in the neck, pain radiating to both arms, or pain radiating to the legs suggests a possible spinal cord injury.

Medical evaluation

Athletes with a burner should be evaluated by a physician and should not return to their sport until they have fully recovered. A single burner or the effects of recurrent burners can lead to permanent neurologic damage. Nerves that have been injured are more susceptible to injury. Testing to evaluate nerve injury and recovery should be done by a trained medical specialist. Furthermore, burners can easily be confused with other neck injuries. Athletes who have tenderness over the bones in their neck or symptoms in both arms or a leg should be stabilized on the playing field and transported to a facility that can evaluate the athlete for possible spinal cord injury.



One mechanism of a burner where the nerves (brachial plexus) are stretched.

Treatment

The main treatment for a burner is rest until the symptoms completely go away and muscle strength is regained. Most burners last seconds to minutes. Sometimes the symptoms last hours or days, and athletes must rest from playing their sport that entire time. Ice to the base of the neck for at least 20 minutes, 3 or 4 times a day, may be helpful for the first 48 to 72 hours after the injury. Use of nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen or naproxen, may also be helpful. While it is unusual for a burner to cause permanent nerve damage in young athletes, any athlete with a burner should be examined by a physician. In addition, they should not be allowed to return to practice and play until a physician has determined that they have full sensation, strength, and neck motion.

Some athletes are more prone to burners than others. Athletes with frequent burners (such as multiple burners in a season or multiple seasons with a burner) should see a doctor. If symptoms are lasting longer or are becoming more severe, a longer rest period would be a good idea. Once the nerves have been injured, generally they are reinjured more easily.

Prevention

The best way to prevent a burner is for athletes to use proper tackling technique ("see what you hit") and strengthen their neck muscles. This will help limit excess motion of the neck from contact or collisions and reduce either stretch or compression to the nerves. In football, various collars (neck rolls, cowboy collars) have been created that can be attached to the shoulder pads to limit neck motion. The efficacy of these devices in preventing burners is unclear. Athletes who use these collars must make sure they can still extend their necks and look up during a tackle. In football, being able to see what you hit generally reduces the risk of serious injury that can occur when the neck is bent forward at the time of impact. Burners can also be prevented by avoiding contact or collisions until the effects of a previous burner have completely resolved.

Notes

The information contained in this publication should not be used as a substitute for the medical care and advice of your health care professional. There may be variations in treatment that your health care professional may recommend based on individual facts and circumstances.

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