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Whiplash: Treatment and Recovery

Treatment

Conservative treatment includes immobilizing the patient's neck in a well-fitting soft cervical collar; use of pain, anti-inflammatory, and muscle relaxant medications; and chiropractic and physical therapy.

Whiplash is a sudden movement of the head, backward, forward, or sideways. Whether from a car accident, sports, or an accident at work, whiplash or other neck injuries warrant a thorough chiropractic check-up. The biggest danger with whiplash injuries is that the symptoms can take years to develop. Too often people don't seek treatment until more serious complications develop. Even after whiplash victims settle their insurance claims, some 45% report they still suffer with symptoms two years later.

Neck sprains and strains are the most frequently reported injuries in U.S. auto insurance claims. Such whiplash injuries can be sustained in any type of crash but occur most often in rear-end collisions. Good head restraints can help prevent them.

Insurance Institute of Highway Safety (IIHS) tests vehicle seats and head restraints with a special dummy that has a realistic spine. The vehicle seat — with the dummy in it — is placed on a sled, which is moved to simulate a rear impact.

Head restraint geometry

Good geometry is essential for an effective head restraint. If a head restraint isn't behind and close to the back of an occupant's head, it can't prevent whiplash in a rear-end collision. IIHS evaluates the geometry of head restraints in passenger vehicles based on the height and backset relative to an average-size male. A restraint should be at least as high as the head's center of gravity, or about 3.5 inches below the top of the head. The backset, or distance behind the head, should be as small as possible. Backsets of more than about 4 inches have been associated with increased symptoms of neck injury in crashes. The restraints are measured with the angle of the torso at about 25 degrees, a typical seatback angle. IIHS classifies each restraint according to its height and backset into one of four geometric zones — good, acceptable, marginal or poor.

Head restraints have improved since the Institute first began rating them. In 1995, only 3 percent of measured head restraints received good geometric ratings, while 82 percent were rated poor. Among recent models, most head restraints have good geometric ratings, and the rest are acceptable. IIHS ratings have forced manufacturers to pay attention to head restraint design. A government standard has been in effect since September 2010 requires a minimum of 29.5 inches from an occupant's hip to the top of a head restraint and a backset of 2.2 inches or less. This guarantees that nearly all new head restraints would be rated good for geometry by IIHS. The bigger question still remains, most do not understand how to use them.

In the past a typical whiplash injury, where no bones were broken, was hard to document. Soft tissue injury didn't show up on normal x-rays/radiographs and insurance companies would deny coverage. Literally adding insult to injury, the patient suffering all too real pain was considered to be a fraud, a liar, or at best a hypochondriac. New imaging devices (CAT Scans, Magnetic Imaging, and Ultra Sound) now show soft tissue injury and insurance companies now cover most whiplash injuries. When no bones are broken and the head doesn't strike the windshield, typical symptoms are as follows: 62% to 98% complain of neck pain, which typically starts two hours up to two days after the accident. This is often the result of tightened muscles that react to either muscle tears or excessive movement of joints from ligament damage. The muscles tighten in an effort to splint and support the head, limiting the excessive movement.

Sixty-six to 70% of those suffering from whiplash complain of headache. The pain may be on one side or both, on again off again or constant, in one spot or more general. These headaches, like the neck pain, are often the result of tightened, tensed muscles trying to keep the head stable and, like tension headaches, they are often felt behind the eyes.

Shoulder pain often described as pain radiating down the back of the neck into the shoulder blade area, may also be the result of tensed muscles.

Muscle tears are often described as burning pain, prickling or tingling. More severe disc damage may cause sharp pain with certain movements, with or without radiation into the arms, hand and fingers, which are relieved by holding your hand over your head.

The chart below lists the most common whiplash symptoms. If you experience any of these symptoms, play it safe and get a chiropractic check up.

BASIC WHIPLASH SYMPTOMS

Neck pain and/or stiffness

Blurred vision

Difficulty swallowing

Irritability

Fatigue

Dizziness

Pain between the shoulder blades

Pain in the arms or legs, feet and hands

Headache

Low back pain and/or stiffness

Shoulder pain

Nausea

Ringling in the ears

Vertigo

Numbness and tingling

Pain in the jaw or face

How Does Whiplash Happen?

Whiplash is most commonly received from riding in a car that is struck from behind, or collides with another vehicle. When the head is suddenly jerked back and forth beyond its normal limits, the muscles and ligaments supporting the spine can be over-stretched or torn. In a rear end collision for example, the victim's car is first pushed or accelerated

forward and then, because their foot is on the brake, or their car hits the vehicle in front, their car is rapidly slowed down, or decelerated. As the vehicle accelerates forward, it pushes the body forward too, but the head remains behind momentarily, rocking up and back, until some of the muscles and ligaments are stretched or torn.

Muscles, in a reflex action, contract to bring the occupant's head forward again, and to prevent excessive injury. This overcompensates because at this point the head is already traveling in a forward direction as the car decelerates. This violently rocks the head forward, stretching and tearing more muscles and ligaments. The soft pulpy discs between the vertebrae can bulge, tear, or rupture. Vertebrae can be forced out of their normal position, reducing range of motion. The spinal cord and nerve roots get stretched, irritated, and choked. If the victim is not properly restrained the occupant's head may strike the steering wheel or windshield, possibly causing a concussion.

OTHER TREATMENT OPTIONS:



Physical therapy (PT) helps to reduce muscle spasms, increase circulation, and promote healing. PT may include the following modalities: moist heat, ice, ultrasound, electrical stimulation, and exercise to restore range of motion and build strength.

If symptoms persist, cervical traction may be incorporated into the treatment plan. A portable cervical traction device can be used at home or office. Trigger point injections containing a local anesthetic may help alleviate pain and tenderness.

If symptoms continue more than 6 weeks, or new symptoms appear the patient's condition is re-evaluated. Severe extension injuries can damage the intervertebral discs involved. When an intervertebral disc is affected, surgical intervention may in rare instances be required.

Surgery Rarely Needed

Rarely does the treatment of whiplash require surgery. Surgical intervention is considered in severe cases such as those presenting persistent neck, scapular or shoulder pain. The pain may indicate a tear in an intervertebral disc. When intervertebral disc removal is necessary, one of the following procedures may be performed:

Discectomy is the surgical removal of part or the entire offending intervertebral disc.

Microdiscectomy incorporates the use of a microscope to magnify the surgical field during disc removal.

Percutaneous surgical procedures enable disc removal through a small incision in the back. These are generally not used in the cervical spine (neck) but have been used in the low back. Automated Percutaneous Discectomy is performed under radiologic control while a cannula (hollow tube) with a rotating blade breaks up the disc. The disc fragments are then removed by aspiration.

Once the target disc is removed, Spinal Instrumentation and Fusion provides permanent stability to the spinal column. These procedures join and solidify the level where an intervertebral disc has been damaged or removed. Instrumentation, the use of medically designed hardware such as rods and screws, can be combined with Spinal fusion (arthrodesis) to permanently join two or more vertebrae.



Recovery

Non-Surgical Recovery

During the recovery phase, the goal is to help the patient resume normal activities at their pre-injury level.

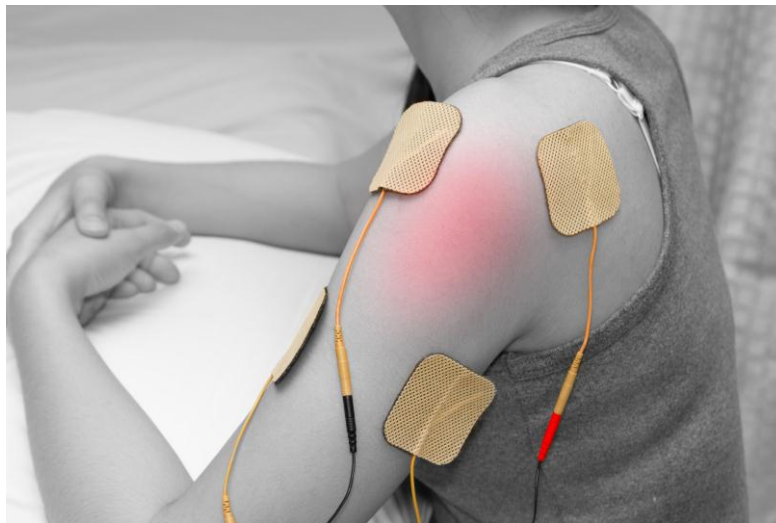
The guidelines set forth by the spinal physician and/or physical therapist should be closely followed. A home exercise program customized by the physical therapist is a key to rebuilding strength and increasing range of motion. It may be necessary to continue physical therapy and modalities (e.g. moist heat) for a period of time.

Surgical Recovery

Post-operative pain and/or discomfort should be expected. Patient Controlled Analgesia

(PCA) enables the patient to control their pain without hospital staff assistance. PCA is eventually replaced by oral medication.

The patient may be encouraged to get up and walk the following day. Activity enhances circulation and healing.



Physical therapy is added post-operatively enabling the patient to build strength, flexibility, and increase range of motion. Physical therapy is usually continued on an outpatient basis for a period of time. Additionally, the therapist provides the patient with a customized home exercise program.

Prior to release from the hospital, the patient is given written instructions and prescriptions for necessary medication. The patient's care continues during follow-up visits with their spinal surgeon.