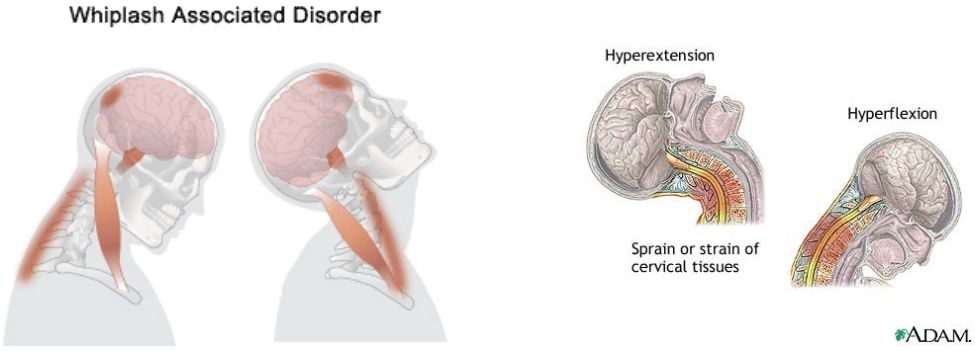
Whiplash

WHAT IS WHIPLASH?
Whiplash typically results in injury to the spinal joints and the surrounding soft tissues. It is usually caused by sudden extension (backward movement of the spine) and flexion (forward movement of the spine). This type of injury is often the result of auto accident crashes. Structures often affected can include tearing of the spinal muscles and ligaments, both anteriorly and posteriorly (front and back), irritation and injury to the spinal facet joints, injury to the spinal discs and possibly irritation to the spinal nerve roots or spinal cord.



COMMON SYMPTOMS:
Symptoms reported by sufferers include: pain and aching to the neck and back, referred pain to the shoulders, sensory disturbance (such as pins and needles) to the arms & legs and headaches. Symptoms can appear directly after the injury, but often are not felt until days and sometimes weeks afterwards. Whiplash is usually confined to the spine (neck to low back) but other injuries may also occur.

PRINCIPAL DIAGNOSIS:

Four grades of Whiplash-Associated Disorder were defined by the Quebec Task Force on Whiplash-associated disorders (WADs):

- **Grade 1**: complaints of spinal pain, stiffness or tenderness only but no decreased range of motion or point tenderness in the soft tissue or spinal joints.
- **Grade 2**: spinal pain, stiffness and tenderness, and the examining physician finds decreased ranges of motion and point tenderness to the soft tissue and spinal joints.
- **Grade 3**: same as Grade 2 plus neurological signs such as decreased deep tendon reflexes, weakness, insomnia and sensory irritation or deficits.
- **Grade 4**: same as Grade 3 and may include fracture or dislocation, or injury to the nerve roots or spinal cord.

RED FLAGS: Red flags are considered symptoms such as 1) increased pain, 2) increased or new numbness, tingling or weakness, 3) changes in bowel or bladder function (uncontrolled release of bladder or release of bowels/ no bowel movement). Please call the physician if any of these symptoms occur.

TREATMENT: Treatment varies per patient and per injury. In some cases the patient may be treated with gentle spinal adjusting, traction and rehabilitative stretching and exercises to help the disc heal correctly. In cases where the injury to the spinal disc is included, treatment time may be longer than other injuries due to the fact the anulus fibrosis tissue of the disc has a very low blood supply. Possible treatment options may include:

- **Manual therapy** - Manual therapy such as gentle spinal adjustments and spinal traction increase circulation, reduce pain, reduce inflammation, and increase pain-free movements.

- **Activity modification** — This might include altering your home and workplace environments to avoid excessive twisting, stretching, and bending. Using proper lifting techniques also is important for protecting the spine.
- **Medications** — Medication can help relieve pain, and reduce inflammation and muscle spasms. An over-the-counter non-steroidal anti-inflammatory drug (NSAID), such as Motrin or Ibuprofen, might be recommended to help reduce pain and swelling. Stronger medications might be prescribed if the NSAIDs do not provide relief. These medications might include pain relievers and muscle relaxants. These medications can have side effects, including nausea, headaches, and sleepiness.
- **Exercise therapy** — The goal of exercise and/or physical therapy is to reduce pain and inflammation through movement, and increase pain-free movement. Exercise also increases circulation, which aids healing and improves flexibility.
- **Posture correction** — Keeping pressure and irritation off of the spine can reduce stress on the spinal joint and increase heal time.

TREATMENT PLAN/ APPOINTMENTS: Treatment plans vary per patient and per spinal injury as each patient and injury is different. Initially, patients are treated more frequently as our goal is to increase healing and decrease pain. Treatment for whiplash takes time and patience as the soft tissue and joint complex heal. Reduction in pain alone does not mean that the patient has fully healed, reevaluation and examination by the physician is important in ensuring full recovery. Stages of treatment and healing include the following 3 phases:

- **Acute Phase**: This is the initial phase following the injury. During this phase symptoms may include severe pain, inflammation, swelling, decreased range motion and possibly a decrease in neurological function. During the end of this phase scar tissue begins to grow. This phase can last anywhere from 2-6 weeks.
- **Stabilization Phase**: This stage is marked by new growth of connective tissue and capillaries, to help repair damaged structures. Scar tissue continues to grow during this time. Tissues in this stage are very fragile, so placing stress on the injured area should be limited to the treating physician. Gentle movement and possibly mild isometric and low intensity, non weight bearing exercises may be advised. This phase can last anywhere from 4-6 weeks.
- **Rehabilitation Phase**: During this phase of healing, scar tissue is remodeled by the stresses placed on it. This means that the activities and exercises will affect the strength and fiber orientation of the developing scar tissue. During this stage, continued care and home exercise programs are crucial for proper healing. Such care will help to properly develop the scar tissue to where it can be useful in protecting and stabilizing the injured area. If treatment or home exercises are discontinued at this phase, the injured area will heal in a contracted and disorganized state and the patient will become more susceptible to re-injury in the future. This phase can last anywhere from 4-6 weeks.

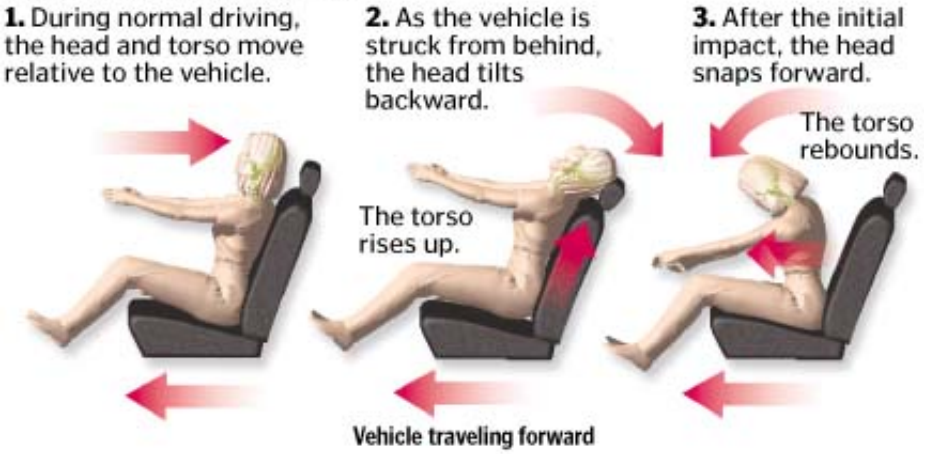
Each phase of treatment and healing can vary in time depending upon severity of injury, types of treatment, patient compliance and symptom flare-ups.

Our goal is to help the patient to recover fully without further symptoms or irritation in the future.

SPECIAL INSTRUCTIONS: The doctor may send you out for further imaging of the spine and in some cases he may refer you out for evaluation by another medical provider.

How whiplash occurs

Motorists involved in rear-end crashes commonly experience whiplash. Injuries to the neck occur as the torso accelerates forward and the neck lags, then the head whips forward.



Source: Insurance Institute for Highway Safety

Tim Summers / The Detroit News