



WHIPLASH – THE MOST COMMON NECK INJURY

It is estimated that there are more than 100,000 whiplash cases in Canada each year. Most occur from automobile accidents, but whiplash can also result from sport or occupational injuries.

Whiplash occurs when the force of an impact thrusts your head forward and then rapidly jerks it backward again. The soft tissues of the neck and upper spine are stretched and torn by the jerking motion, causing inflammation, pain and / or sensations of numbness in the neck and shoulders.

The head weighs approximately 4.5 – 5 kg, and is balanced on the neck – a narrow and highly mobile part of the spinal column. The neck is composed of the first seven vertebrae of the spinal column. The vertebrae are cushioned by discs, and held together by ligaments. Different muscle groups support the neck and control head movement, as well as keeping it aligned with the rest of the spine. The normal spine is in an elongated 'S' shape, with the neck forming the upper part of the curve. Correct posture maintains the spinal curvature and prevents undue stress and strain by distributing body weight evenly. When your posture is correct and fully erect, a straight line from your ear will go down through the tip of your shoulder, the middle of your hip, the back of your kneecap and the front of your ankle.

HOW CAN PHYSIOTHERAPY HELP?

Recent studies indicate that almost 90 per cent of whiplash cases heal in days or a few weeks and do not require intensive treatment. Usually it is the muscles and ligaments of the neck that have been affected, although there can be bone fractures or joint damage in severe cases. The key to a successful and complete recovery is to get early and effective treatment to deal with the symptoms of whiplash.

Physiotherapists are self-regulated primary care rehabilitation professionals who have the specialized skills to evaluate a whiplash injury and the effect it may have on the body, posture and function. Through assessment and determination of the physiotherapy diagnosis, physiotherapists provide a personalized treatment plan geared to client self-management and a return to normal activities in a timely and appropriate manner.

Physiotherapists support an active approach to the treatment of neck pain. Once the injury has been assessed to ensure there is no fracture or ligament tear, moderate exercises may be prescribed to strengthen and condition damaged joints and soft tissues. In addition, physiotherapists may assist with short-term pain relief through manual therapy, ice and / or heat applications and relaxation techniques. Education and counseling in post-recovery, self-management care, and ergonomic assessment and instruction in safe work practice are additional components of the physiotherapy rehabilitation program. To prevent further neck injury, avoiding strain must become a way of life, practiced while lying, sitting, standing, walking, working and exercising.

IS IT NECESSARY TO WEAR A NECK COLLAR?

While traditional treatment for whiplash used to involve a soft cervical collar to restrict head movements for lengthy periods of time, it is now known that in most cases early movement and exercise promotes healing and a more rapid return to normal activity and function.

RECOVERY PROCESS

Scientific evidence indicates that early intervention results in faster recovery. Talk to your physiotherapist about any concerns you may have. Your involvement in the recovery process is essential to ensure your injury heals relatively quickly and without permanent damage.

While the ligaments and soft tissues are healing, limit activities that keep your head down for any period of time, such as doing paperwork, writing or close detailed work. Position your work surface so that you can maintain correct posture. Adjust your seat height and keyboard position where necessary to reduce strain on the injured neck. Perform neck exercises throughout the day. Avoid overhead reaching – use a ladder or stepstool instead. Use proper neck and back supports during rest and sleep. **Be sure to take frequent breaks from activities to check your posture, stretch and move around.**

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S This information sheet is part of the CPA's **S.M.A.R.T.** approach to your mobility (focusing on **Stretching, Moving, Adding it up, Reducing Strain** and **Talking to a physiotherapist**). The information provided is intended for general use and is not meant to substitute for the professional, personal assessment your physiotherapist offers.

1 Cette fiche de renseignements fait partie du programme de l'ACP « **cinq points** pour assurer votre liberté de mouvement » (**1. Étirez-vous; 2. Bougez; 3. Additionnez les minutes; 4. Réduisez la fatigue; 5. Consultez un physiothérapeute**).
2 Ces renseignements sont fournis à titre général seulement et ne prétendent pas remplacer l'évaluation professionnelle, personnalisée offerte par votre physiothérapeute.

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cont'd: **WHIPLASH - The Most Common Neck Injury**

STRENGTHENING AND CONDITIONING

While most whiplash injuries are caused by an unexpected accident, there are a number of things you can do to strengthen and condition your neck for optimum function and comfort.

• Gentle muscle relaxation exercises:

Stretching

- Gently tuck your chin in towards your chest and rotate your head toward one shoulder until you feel a gentle stretch in the neck muscles on the opposite side of your neck. Hold 10 to 15 counts and then relax. Do 5 - 10 repetitions on each side.
- Gently tuck your chin in towards your chest until you feel a gentle stretch in the muscles along the back of your neck. Hold 10 counts and then relax. Do 5 -10 repetitions.
- Keeping your mouth closed, slowly tilt your head back until you feel a gentle stretch in the muscles along the front of your neck. Hold 10 counts and then relax. Do 5 -10 repetitions.
- Keeping your head in line with your shoulders, slowly bend your neck to the side until you feel a gentle stretch along the opposite side of your neck. Hold 10 counts and then relax. Do 5 -10 repetitions on each side.



Avoid neck rolling! Head circles may compress the cervical discs and may also damage nerves and blood vessels in the neck.

Strengthening

- Tuck in chin. Push head back against your hands or the floor (if lying on your back). Hold 3-5 counts. Do 10-20 repetitions.
- Place your hand on the side of your head. Tuck your chin in and push your head to the side, against your hand. Hold 3-5 counts. Do 10-20 repetitions.
- **Practice proper techniques and posture correction** to alleviate any undue strain on the neck during work and other activities.
 - In a sitting position – When sitting in any position, the natural curves of the spine must be maintained. Use the arm rests and chair back to support yourself or, if necessary, sit with your back against a wall.
 - In a lying position – Avoid propping head or upper body up on one arm and hand. Propping compromises the neck, and places strain on the joints of the arms, wrists, and hands.
 - At night, use only one pillow when lying on your back or sides. When lying on your side, you may find that placing a pillow at your back or between your legs helps maintain a restful posture.



Physiotherapists are healthcare professionals who help people of all ages and lifestyles gain and maintain their desired level of active living and physical mobility. With their applied knowledge and understanding of the human body in action, physiotherapists are able to help you to increase your mobility, relieve pain, build strength and improve balance and cardiovascular function. Physiotherapists not only treat injuries, they also teach you how to prevent the onset of pain or injury that can limit your activity.

HOW DO I FIND A PHYSIOTHERAPIST?

Finding a physiotherapist may vary from province to province. Here are some suggestions:

- Check the yellow pages of your local telephone book for listings of physiotherapists and physiotherapy clinics. You can make an appointment with a physiotherapist directly anywhere in Canada.
- Ask for a recommendation from your family doctor. While a direct referral is not necessary, your physician may be able to suggest a physiotherapist for your particular concern. Further, while many physiotherapy services are covered by provincial health car plans, Workers Compensation plans and private insurance, some insurance plans require a doctor's referral for reimbursement.
- Visit the Canadian Physiotherapy Association's web site at www.physiotherapy.ca, to access our "Find A Physiotherapist" directory and to find out more information about physiotherapy. The CPA web site can also link you to resources for finding physiotherapists through provincial branches and regulatory colleges.