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### **The Driving Force Behind Whiplash** *By Karen Decker, BScPT, BScK, FCAMT*

With the onset of spring, comes the tendency to drive more and often without the same winter caution. This can lead to increased risk of sustaining an injury in a motor vehicle accident (MVA). Appropriate immediate management for such injuries is crucial to prevent long term dysfunction.

#### Mechanism of injury

The most common mechanism of impact in MVAs is one vehicle rear ending another. This results in hyperextension of the neck and back by the driver and passengers of the front vehicle. Then a recoil mechanism occurs where the body and head are thrust forward; the neck injury sustained is whiplash.

#### Tissue Injured

This initial hyperextension movement results in compression and excessive stretching of various tissues. These include muscles, tendons, ligaments, discs, fascia, nerves and joint structures most often in the neck and low back. Injury can also be sustained to the shoulders and/or cause referring and radiating pain into the arms or legs. These 'soft tissue' injuries are often referred to as strains and sprains and result in the development of inflammation, spasm and pain. If the damage is initially minor, then discomfort may not develop until one

to two days following impact. If the impact is more severe, then more damage may be sustained resulting in immediate pain (at the scene). Immediate follow-up with a physician may be necessary at this point.

#### Immediate Management

As with other strains and sprains (ie: from falls and sports injuries) the key to immediate management (first 24-72 hours following injury) is through the P.R.I.C.E. method.

*P – Protect:* injured tissue may benefit from the brief use of a brace such as a soft neck collar to support injured tissue and provide some pain relief

*R – Rest:* depending on the severity of damage, during the first 2-3 days injuries may benefit from reduced activity (ie: heavy workouts or lifting)

*I – Ice:* application of a cold pack to the injured area will help reduce the severity of inflammation; apply for 15 minutes and repeat every hour for the first 2-3 days

*C – Compress:* with a tensor bandage or compression sleeve (not feasible for the neck) can be applied to the low back, knees, shoulders if injured to reduce swelling; continue application for 2-3 days

*E – Elevate:* the injured area if possible; could simply mean lying down to reduce gravitational flow of inflammation

#### Long Term Management

Eventually tissue inflammation settles and the body responds to the damage by laying down scar tissue. Scar tissue is rigid when produced and requires stretching and strengthening of surrounding tissue to become more functional. The average healing time for soft tissue is 6-8 weeks. Occasionally, residual problems remain following such injury. This may be the result of compression and subsequent bruising of bony and other joint tissue structures. Often, however, it results from the tissue not healing correctly and persisting weaknesses and imbalances.

To assist such healing, minimize restrictions of scar tissue and reduce the occurrence of persistent weakness and imbalances, we at the new Medicine in Motion Centre suggest that you attempt to continue with some form of regular exercise as soon as possible following the injury. If pain and reduced function persist beyond 2 weeks, assessment and treatment by Physiotherapy and Massage Therapy can help guide you through the necessary exercises to return to regular activities. Hands on treatments (manual therapy, manipulation, massage therapy) can also help improve pliability of tissues and thus overall movement and function.

### **Treating Whiplash with Massage Therapy** *By Melissa Plaster, RMT*

Whiplash injury to the neck, or cervical sprain/strain, is by far the most common injury resulting from a car accident. Sprains and strains are also known as soft tissue injuries. Soft tissue injuries can cause severe debilitating pain after a car accident, they are invisible on x-rays and are often overlooked.

If a soft tissue injury is not directly addressed, and remains left untreated, the injured muscles and other soft tissues can end up causing chronic pain for months, years and even decades after the initial accident.

Unfortunately, the standard medical approach to these injuries often only involves suppressing symptoms with painkillers and anti-inflammatory drugs and leaving the injured muscles to heal on their own.

However, muscles tend not to recover fully when only given time to heal. Injured muscles heal by laying down scar tissue. This leaves them weak, less elastic, prone to re-injury and pain.

Massage Therapy approaches like *General Swedish Massage* and *Myofascial Release* help to

restore muscular strength, flexibility, and normal function by correcting or "aligning" the scar tissue; this is crucial for full muscular recovery.

Massage Therapy is an essential part of the healing process for sprains and strains, the most common injuries from car accidents. Not all symptoms reveal themselves after an accident; some symptoms may not arise for weeks or even months. Massage Therapy can help treat current symptoms as well as preventing new symptoms from developing.

## Chronic Pain *By Heather Purvis, RMT*

Chronic pain is persistent pain that can go on and on for months or even years. It is pain that lasts beyond the expected time for healing and interferes with normal life. Common types of chronic pain include back pain, headaches, arthritis, fibromyalgia, cancer pain, and nerve pain. Regardless of the type of pain, the physical and emotional effects can be devastating. It is a very debilitating and isolating experience because you cannot actually see pain.

Everyone probably knows at least one person who is suffering from some form of chronic pain, but such pain is often stigmatized by society; leaving sufferers reluctant to acknowledge and talk about it candidly. Many people suffer in silence; they believe their family and friends are simply tired of hearing about their pain related problems and feel others don't understand

how their pain affects their life.

**Chronic pain affects your self esteem, your level of motivation, your productivity, your ability to sleep, and your relationships with others.**

Treatment for chronic pain has historically involved prescription drugs, but concern for side effects and possible addiction, have many seeking alternative therapies. Treatment for chronic pain is about much more than medication. It can also involve stress relief and relaxation, improved sleep and nutrition habits, physical therapy, and exercise.

Pain is a sensory experience. The actual pain message can be triggered by muscle tension, stiffness, spasm, or weakness and magnified by depression, stress or panic attacks. You can't really treat a patient for pain without considering both the mind and body.

Many physicians are encouraging their patients to pursue massage therapy as part

of their physical therapies regime in addition to medical treatment. Massage improves blood circulation. If a muscle is not receiving enough blood, it is not receiving enough oxygen. Lack of oxygen causes the muscle to produce lactic acid, which in turn makes the muscle feel sore after activity. Massage leads to increased endorphin levels, which is actually one of its greatest benefits. Endorphins are the chemicals your body produces that make you feel good. Massage also relaxes the mind, thereby focusing attention away from the physical pain.

The pain experience is a very personal and unique one and individuals may find relief in many different ways, but, chronic pain sufferers do have some things in common. They have rights. They have the right to information, to be treated with respect, and to get help.

## “Springing” Into Spring... Safely *By Laura Lundquist, MScPT, BSc*

Another winter has come and almost gone and we're all eager to get out into the warm fresh air and resume our spring and summer outdoor activities and sports.

Over the colder months of the year, we tend to be less active and lose some of the conditioning we gained the previous year. Eagerness to return to activity as the warm weather returns can cause injury if a step-wise progression is not used for safe resumption. This rule stands not only for high intensity sports and athletics but also walking programs and gardening. Injuries early in the spring are especially frustrating because they can be a factor for the remainder of the season.

Mild aching muscles and joints are common when getting back into an active lifestyle. Unfortunately, if left unaddressed, these minor aches can become more serious injuries.



Much of this could be avoided by smart planning ahead of time and careful attention the messages being relayed by the body. The best advice at the beginning (or resumption) of an exercise program/activity is **start low, go slow**. In other words, it is better to start at a lower intensity (whether it is speed in cardio, weight in resistance training, or duration of ac-

tivities like walking and gardening) and make your progressions in difficulty slowly. Generally speaking, with cardio training, you should be able to maintain a conversation while working out – *if you're too out of breath to talk, you're too out of breath*. Assessing appropriate weight training intensity can be somewhat more difficult. However, most importantly the old saying “*no pain, no gain*” needs to go; weight training should not be painful. The mild muscle ache after activity should progressively resolve within 48 hours.

Finally, if despite good planning, an injury occurs, get in to see your physician or physiotherapist immediately to speed recovery and allow safe return to activity.