

## **ROUTINE FOR WEARING CERVICAL COLLARS**

Collars can be useful when worn immediately after an accident, when moving the head causes pain and may actually cause more damage to the swollen soft tissue in the neck.

However if the head is kept still for too long and a collar worn at the same time, this can actually slow down the healing process and cause a lot of stiffness and weakness of the neck muscles, which can then lead to more pain.

These notes are intended to be general guides on how to use a collar for the best recovery. They are not strict rules as everyone will recover at different speeds.

1. During the first 48hrs at least 2 or 3 times each day, whilst lying down, take the collar off and move your head gently from side to side as far as you can without causing extra pain.
2. After the first 48hrs try taking the collar off every few hours whilst sitting up. In this position, turn your head as far as you can to the left and then to the right. Then take your left ear as far as you can towards your left shoulder, repeat to the right. This exercise should also be done gently so as not to cause extra pain for the first 48 hours.
3. If you have been wearing your collar for a week, then you should start trying to go for periods of time without using it and gradually increase these over a few days until you can manage without it for a few hours at a time. Whilst not in the collar you should be gently moving your head in all directions- avoid rolling/circling your head. It is now safe to move your head into your painful limit without causing further harm.
4. After two weeks you should be aiming to discard the collar completely.

**If you have severe pain or any dizziness whilst trying these exercises, stop until you have either seen a doctor or physiotherapist who will tell you what to do.**

**This information apply mainly in the case of an acute neck pain of muscular origin and does not suggest the same in the case of management of chronic neck pain +/- arm referral symptoms.**

## **BENEFITS OF EXERCISE THERAPY**

Joints that are weakened from either Osteoarthritis, injury, the wrong type of exercise or disuse may lead to pain and reduction in normal activity. This reduction in activity will promote stiffness of joint(s) and weakness of the surrounding muscles, and soft tissue. The joint(s) become more unstable, and are therefore more likely to be injured and are not able to function of normal activity.

### **Benefit of Exercise For Your Body And Joints**

Improving flexibility, which can help with injury prevention reduces stiffness and can lead to greater strength as the muscles, ligaments and tendons can work over a greater range of movement.

Increase the strength of muscle and muscle bulk helps to protect joints and makes them more stable.

Exercise increase blood flow to the area, which helps with the delivery of nutrients to aid the healing process and strengthen the joints, and enhance the removal of metabolic wastes ,which if left to stagnate can aggravate nerve endings, which leads to pain. If swelling is present, increased blood flow will speed up the reduction of the swelling.

Aerobic type exercise such as walking, swimming and cycling will help to strengthen the heart, lungs and circulation as well as the Musculo-skeletal system and can aid weight loss, alongside a healthy diet.

### **Psychological Effects of Exercise**

Research has shown that participation in a regular exercise program, can lead to enhancement of self confidence, well being, self esteem and body image and reduction in anxiety, depression, stress and tension. Self-esteem is the degree to which individuals feel positive about themselves and has the greatest potential for benefit from exercise.

## APPLICATION OF COLD THERAPY

The application of a cold pack is often very effective on hot, swollen and painful joints and where inflammation is present e.g. acute sprained ankle.

### **Method**

A bag of frozen peas or ice cubes in a plastic bag can be used.

Alternatively there are purposes-made cold therapy packs on the market that can be used in accordance with the manufacturers' instructions.

### **Application**

- Expose the area, which is to have the cold applied to it.
- In order to protect your furniture place a piece of plastic underneath the joint.
- Place a piece of wet kitchen roll or a damp flannel over the area and place your cold pack on top. Wrap the towel round.
- At the end of the treatment time dry the area thoroughly and expect there to be slight reddening of the skin.

### **Dangers**

1. **Never** apply cold straight onto the skin.
2. **Never** apply cold to an area where you cannot appreciate the difference between hot and cold.
3. **Never** apply cold to your left shoulder if you have a heart problem.
4. **Always** check the area 5 minutes after commencing treatment for excessive redness.
5. If you suffer from bad circulation **never** apply a cold pack to any area until you have consulted your doctor.

## APPLICATION OF WARMTH/HOT THERAPY

Warmth applied to an area of the body can help to relieve pain and muscle Tension. It will also help to improve circulation to the area it is usually followed by a regime of gentle exercise.

## Method

- Gentle warmth for 10-15 minutes can take a number of forms examples of which are:
  - Hot water bottles
  - Embrocation/Ointment
  - Infra red lamps
  - Warm bath/showers
  - Heat pads (electrical or wheat)

## Application

- **Hot water bottles:**
  - Fill a hot water bottle to half full (or less) with hot (not boiling) water. Squeeze out excess air and fasten securely.
  - Wrap the hot water bottle in a towel.
  - Place the towel and bottle on the area you require to be heated, making sure the area is well supported.
  - Check the area every 5 minutes to make sure you are not burning.
- **Embrocation**

Gently apply a small amount of embrocation to clean dry skin, in accordance with manufacturer's instructions.

## Dangers

- **Never** place the hot water bottle straight onto the skin.
- **Make** sure the weight of the hot water bottle is not causing discomfort.
- **Never** use heat and ointment together.
- **Never** use heat on areas where you cannot appreciate the difference between hot and cold or where the skin is broken.
- If you suffer from any circulatory problems or diabetes consult your doctor before applying any heat.
- Do not apply to recent soft tissue injury (up to 48 hours after injury).

## WHIPLASH INJURIES

A whiplash injury involves bony or soft tissue injuries to the neck as a result of acceleration/deceleration forces. It usually results from a rear end or side impact motor vehicle accident. This injury commonly leads to Neck pain, arm and shoulder pain and headaches.

### **How long does a whiplash injury take to get better?**

The recovery time for a whiplash injury is very variable. Some will recover completely after a day or two; others will take over 12 months until full recovery.

Occasionally this is because some of the tissue involved is relatively slow to heal. However, many people suffer much longer than they need to because of weakness through inactivity in the first few days and weeks after injury.

By following the advice in this leaflet, you can help limit pain and immobility.

### **Exercises**

Tissues heal better when encouraged to move. It is therefore best to avoid bed rest and ensure that regular movement and exercise is undertaken.

- Turn the head to one side then to the other side.
- Facing forward, tilt the head sideways.
- Facing straight ahead, tuck the chin backwards making a double chin.
- Bend your neck forwards, looking downward.
- Arch your neck backwards, looking upwards.

**Hold each for 5 seconds**

### **When to seek medical advice**

It is advisable to seek further guidance from your Doctor if you are suffering from any of the following symptoms as a result of your whiplash injury:

- Drop attacks (falling to the floor for no apparent reason)
- Dizziness
- Blurred or double vision
- Prolonged pins and needles or numbness in your arms and hands
- Any other unusual symptoms that you have not been warned about

### **Posture**

Poor posture can contribute to poor healing of tissues following whiplash. Try to maintain your normal spinal curves by doing the following:

- Sit up tall and avoid slouching, stand and walk tall. Avoid stooping.
- Ensure that work surfaces are at a comfortable height.
- Use one good pillow or two thin pillows to support the neck at night.

## **ADVICE FOR PEOPLE WITH BACK PAIN**

### **What is Back Pain?**

Back pain is very common; however with the right advice, most back pain settles quickly and is rarely serious.

In most people the pain comes from muscles, ligaments and joints. Tension and stress can cause muscle tension which may worsen the pain. X-rays are not normally necessary and most x-rays findings are due to normal ageing.

In most cases, people with back pain need to get their back working properly again, and by thinking positively you can help yourself do this.

## **Remain active**

### **Recommendations**

- **Keep bed rest to a minimum**

Bed rest for more than a day or two can be bad for your back. Even when in bed try to move and stretch within pain limits.

- **Resume normal activities as soon as you can**

Exercise keeps you strong; makes you fit and make you feel good. Start slowly and gradually build up over a few days or weeks. Then keep it up! Exercise that does not stress your back includes walking, swimming and using an exercise bike. You may ache at first but this does not necessarily mean you are doing harm.

- **Modify your activities**

Some activities involved in your daily life need to be done with care and may need to be modified. At first, try not to do one activity for than 20-30 minutes.

- **Lifting**

- Lift only what you can handle.
- Bend your knees.
- Lift and carry close to your body.
- Use your feet to turn, don't twist your back.

- **Sitting**

- Use an upright chair.
- Use a rolled up towel/back cushion/ a roll in the small of your back for support.

- **Standing**

Ensure that your work surface is a comfortable height. If not, maybe try putting one foot on a low box or stool.

- **Driving**

- Adjust your seat from time to time.
- Use a rolled up towel/back cushion/a roll in the small of your back for support.
- Break up a long journey.

- **Sleeping**

- You may prefer a firm bed.
- Try board beneath your mattress first.

## Coping and preventing a recurrence

- Remember that most back pain will settle and rarely due to any serious disease.
- People who cope well with back pain remain positive and stay active, **so keep up your daily activities bearing in mind the advice in this leaflet.**
- **Try to stay fit.** If you do have a recurrence of back pain there are treatments that can help you control the pain. These include: Painkillers or anti-inflammatories as directed by your pharmacist/medical doctor
- **Heat or cold**  
Try a cold pack wrapped in a wet towel or a hot water bottle applied for 15 minutes at a time, or a warm bath or shower.  
**Caution:** Never use on areas where you can not appreciate the feeling of hot or cold, or where the skin is broken, or where you suffer from circulatory problems.
- **Relaxation**  
To help reduce muscle tension.

## When to consult your Doctor

Although back pain is rarely due to any serious disease, there are some instances where you should see your Doctor:

- Have severe pain which worsens over several weeks or if you are unwell with back pain.
- Develop a difficulty with passing urine, or have to pass urine more frequently.
- Develop numbness around your back passage or genitals.
- Develop numbness, pins and needles or weakness in both legs.
- Develop unsteadiness on your feet.

These instances are very rare and back pain rarely means there is any serious damage to your back.

## SOFT TISSUES INJURY

Common causes of Soft Tissue Injuries include poor preparation for the task/sport, over training, poor equipment, poor technique and collision/blow.

**The effect of injury is inflammation.** This initially results in pain and swelling. Inflammation usually lasts for about 48-72 hours after which time the main problems are those of bruising, stiffness and weakness. If very painful or swollen then you should seek medical attention. However self-treatment can be very effective.

## Treatment of Soft Tissue Injuries

**First 48 hours-** The aim is to resolve any inflammation.

- **Rest**
- **Ice-**an icepack or bag of frozen vegetables (wrapped in a damp cloth to prevent any ice burns) can be applied to the injury part. *Please note* once defrosted, frozen foods should not be consumed. If applied over a bony area then application should up to 20minutes.
- **Compression-** This will help reduce swelling. An elastic bandage or tubigrip should be used. It should not be applied too tightly.
- **Elevation-** This will help to reduce swelling especially when the injured part is raised above the level of the heart.

### **After 48 hours**

The main problems are those of stiffness and weakness. One should start to gradually return to normal activity.

### **Prevention of Injury**

- Maintain Flexibility- Stretch all muscle groups regularly.
- Maintain General Strength- Good muscle strength protects joints from damage.
- Progress an Activity Gradually- Don't do too much too soon.
- Choose equipment carefully

## **OSTEOARTHRITIS OF THE KNEE**

Osteoarthritis (OA) is considered a normal aging process. Joints change with age, and wear and tear can occur. Previously smooth cartilage on the joint surfaces can become roughened making your knee feel stiff and difficult to move, can cause crepitus (creaking) in the joint. The usually strong quadriceps muscle on the front of the thigh can become weakened and you may notice a decrease in muscle bulk.

**These changes need not be serious. In most cases simple exercises and thinking positive can help. Remain active!**

It is important to do some light exercise daily but not to overdo things:

- Walking 20 minutes



- Swimming
- Cycling on flat
- Avoid going up and down stairs unnecessarily and lifting heavy weights.

## **Recommendations**

- **Sitting**

- Use an upright chair
- Gently bend and stretch the knee to avoid stiffening up
- If necessary while resting use a towel rolled behind the knee
- Avoid sitting for long periods of time

- **Driving**

- Adjust the seat into the correct upright position
- Avoid travelling too far in one go- break up a long journey
- Avoid sitting in the back where leg room may be restricted

- **Sleeping**

Avoid using a pillow underneath your knees- this can cause the muscles to shorten making it difficult to straighten your leg.

**Avoid:** Squatting and kneeling as this puts excessive strain through the knee joints.

**Remain active!!**

## **CHRONIC NECK PAIN**

### **Why do you get pain?**

There are several reasons why the neck may become painful.

- Wear and tear on the joints- commonly called cervical spondylosis. This can cause restriction of movement, making the neck feel stiff.
- Overstretching the ligaments and tendons: usually a result of poor sitting or standing posture, too soft a bed or the wrong pillow.

### **Treatment**

In most cases of people with chronic neck pain it is important to get their neck and shoulders working properly again. It is very important to remain active and to remember that even if it hurts, you are not damaging your neck any further.

## **Exercise**

Exercise keeps you strong and increases the levels of the body's natural painkillers-endorphins. Start slowly and gradually build up over a few days or weeks, then keep it up. You may ache at first but this does not necessarily mean you are doing any harm.

**Caution stop any exercise if dizziness occurs; avoid swimming breaststroke for long periods.**

## **Modify your activity**

Some activities involved in your daily life need to be done with care and may need to be modified. At first do not do any activity for more than 20-30 minutes.

## **Posture**

Avoid stooping. Sit up straight and use a rolled up towel/back cushion/ a roll in the small of your back for support.

## **Sleeping**

Try using one good pillow or place a neck roll in your pillowcase.

## **Driving**

Adjust your seat position, and break up a long journey.

## **Carrying**

Keep to a minimum, balance the weight evenly by carrying smaller amounts in each hand and avoid long trips.

## **Coping Strategies**

- People who cope well with neck pain remain positive and stay active therefore keep up your daily activities, but bear in mind the advice in this leaflet.
- Avoid the “good day- bad day” see-saw, avoid overdoing things on good days and doing nothing on the bad days. Try and keep exercise and activity on an even keel by moderating activity on the good days and keeping going on the bad days.
- There are treatments, which can help to control the pain these include:
  - Painkillers or anti-inflammatory tablets.
  - Heat or Cold- try a bag of frozen peas wrapped in a damp tea towel, or a hot water bottle applied for 15minutes.
  - Caution- never uses on areas where you can't feel hot or cold, where the skin is broken, or where you suffer from circulatory problems.

- Relaxation helps to decrease muscle tension.
- Massage.

### Relaxation

When you experience neck pain, there is a natural tendency to tense the shoulders and hold the neck stiff, increased muscle tension can actually cause more pain. Relaxation, especially of the neck and shoulders, should therefore be practiced wherever possible.

## MUSCULOSKELETAL PHYSIOTHERAPY

### How to Use a Walking Frame

Check your walking frame weekly to ensure that:

- It is not bent.
- The joints on the frame are not loose.
- The rubber ferrules are not worn.

- **Walking with your frame**

- To walk, place the frame one step ahead and walk towards it using the **affected** (the leg which causes problems) leg first, followed by the other leg, which should then step through.

### **Do not walk too far into the frame area**

- When steady, lift the frame a short distance and repeat the process.
- If using a wheeled frame, push it forwards a short distance, do **not** continue to push and walk.

- **Chairs**

**Getting up from a chair**

- Position your frame in front of the chair.
- Get up by pushing on the arms of the chair and transfer your hands to the frame when fully standing.

**Do not pull yourself up with the Zimmer frame sitting down in a chair**

- To sit down, using the frame, position yourself in front of the chair and feel the chair behind you with your legs.
- Place your hands gently on the chair arms, bend slightly forward and sit gently down.

## **MUSCULOSKELETAL PHYSIOTHERAPY**

### **How to use elbow crutches**

#### **Getting out**

- Crutches should be near the chair or held in one hand.
- Push up on one crutch and the opposite arm of the chair to assist in standing.
- Once standing up, ensure the arm is secured inside the cuff.

#### **Getting into a chair**

Position yourself in front of the chair ready to sit down. Remove both arms from the crutches: hold the crutches in one hand or place near chair. Sit down.

- **Non weight bearing**

- Keep the affected leg off the ground by holding it slightly in front with the knee slightly bent.
- Move the crutches one pace forward, slightly and level.
- Move body forward between the crutches allowing the unaffected leg to swing through.

- **Partial weight bearing**

This is where the injured leg can take some weight:

- Move the crutches one pace forward, slightly.
- Place the affected leg on the ground level with the crutches, which supports some of the body weight.

- Step through with the unaffected leg.

- **Stairs**

If it is essential to use the stairs and you have not been advised otherwise, try to have someone with you until you feel safe. Hold onto at least one handrail if possible. Hold the spare crutch together with the handle of the remaining crutch.

The crutch/crutches go on the same step as the affected leg.

- **Going up**

The affected leg goes first, followed by the crutches and then unaffected leg onto the same step. The procedure is repeated.

- **Going Down**

The affected leg goes first, with the crutch/crutches, being followed by the unaffected leg onto the same step. The procedure is repeated.

### **GUIDELINES FOR THE USE OF TENS (Transcutaneous Electrical Nerve Stimulator)**

#### **Transcutaneous Nerve Stimulation for the treatment of chronic pain**

TENS is an accepted form of pain relief that works for most people who try it. The TENS unit is a small battery powered machine that clips to a belt or fits in a pocket. Attached electrodes are placed on the skin at the defined area. When the TENS unit is switched on a tingling sensation is felt.

#### **Contra-Indications**

Please be aware of a few reasons when you should **not** use a TENS:

- If your pain is undiagnosed.
- If you are pregnant (unless the consultant or a specialist or Women's Health Physiotherapist says this is acceptable).
- If you have a cardiac pacemaker fitted.
- If the skin where the electrodes are to be placed is broken or fragile or has active shingles.
- Whilst operating machinery.

#### **What is chronic pain?**

Pain is deemed 'Chronic' if a person experiences pain beyond a few weeks. That is when pain continues beyond the time it usually takes the body to heal or for example the ongoing pain associated with wear and tear conditions, such as osteoarthritis.

#### **How can TENS relieve this?**

Pain messages are transmitted to the brain along **pain nerve fibers**. The brain also receives messages from other **sensory nerve fibers** e.g. warmth, touch, vibration.

If the sensory nerve fibers are stimulated e.g. a part of the body is rubbed, the amount of pain felt from that area is reduced (a mother will rub a child's knee better, for example, following a fall)

TENS machines use this principles (known as the pain gate theory) i.e. you feel the tingling of the TENS and it reduces the amount of pain felt. TENS machines also stimulates the production of substances in the body known as endorphins. These endorphins are our body's own natural pain killers, and therefore symptoms may be eased.

### **How to use a TENS machine**

It is important to use the TENS machine properly to gain the most benefit. Seek professional advise.

Some TENS machine are supplied with an instruction booklet.