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Introduction

eck pain is extremely common – estimated to affect more than half of the adult population annually with more than 10% experiencing frequent episodes. Recurrent neck pain can be extremely frustrating but there are a number of things **you** can do, alongside treatment, to speed up your recovery from neck pain.

This guide, backed by the latest scientific research, will teach you what to do and what not to do for a faster, more complete, recovery.

How to use this guide

This guide provides **general** information for patients with low neck pain. Pick and choose what is suitable for your current situation and stage of recovery. Your practitioner will provide you with **specific** recommendations and exercise once they have completed a full examination.



Active Rest

One of the most important things to do after neck injury is to keep mobile. Movement is key for proper healing and has been shown to:

- 1. Accelerate tendon, ligament, muscle and bone healing [1].
- 2. Increase strength of recovering tissues [2].
- 3. Induce more rapid and intensive blood vessel growth into the injured area leading to enhanced blood flow and improved healing [3].

However, excessive or uncontrolled movement will disrupt tissue repair and may cause further damage. We need to limit the strain on the neck enough to reduce pain and sensitivity but keep it moving sufficiently to encourage proper healing = active rest.

The intensity of movement must be scaled according to the type, degree and stage of injury. The sections below detail how to safely introduce movement in cases of acute neck pain.

NB: In some severe cases, a day or two of rest may be warranted. However, movement and loading should still be performed as soon as possible but this should <u>never</u> result in an increase in pain.



Microbreaks

Particularly important for neck recovery is minimising sitting time. A good rule of thumb is not to sit for more than 20-30 minutes without getting up. With severe neck injuries you may want to get up even more regularly than this. Microbreaks are a perfect way to break up periods of sitting and get the neck moving again.

For more information on creating a healthy, movement friendly, workspace take a look at the <u>Ergonomic Solution eBook</u>.

Walking

Walking is an easy and convenient form of active rest. It is safe and generally well tolerated even for those with acute neck pain and is therefore a useful tool for recovery. In order not to overload the neck, try to get out for a few short walks throughout the day rather than one long walk.

Your walking posture is also important. Walking slumped, with short strides and not swinging your arms will lead to more load on your spine and possibly exacerbate pain. Instead, walk with a tall posture, at a brisk but comfortable pace, swinging your arms from your shoulders.



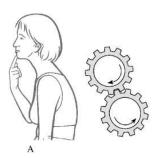


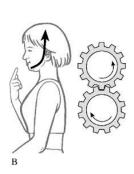
Mobility exercises

Specific mobility exercises can also be incorporated to help safely mobilise the neck, shoulders and middle back.

Neck Retractions

- Stand or sit tall.
- Slowly let your chin slide forward (A).
- Next, pull your head firmly backwards tucking the chin, without flexing or extending the head or moving your back or chest (B).
- Hold for 2 seconds in the retracted position before relaxing.
- Repeat 10 times.
- You can place two fingers on your chin to aid the movement.





Neck Circles and Rotations

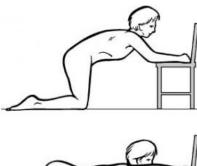
- Stand or sit tall.
- Slowly rotate your head as far as you can comfortably to the left, hold for one breath before repeating to the right.
- Repeat up to 5 times.
- Only go as far you can with no / minimal pain.
- Next, slowly circle the head clockwise 3-5 times.
- Repeat anticlockwise.
- Again, only go as far you can with no / minimal pain.
- Common mistakes include holding your breath, lifting the shoulders.



Restriction in the middle back is a common problem for neck pain sufferers. Gentle mobility exercises can help improve middle back movement unloading the neck and reducing pain:

Upper Back Cat

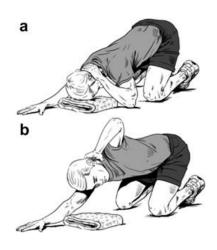
- Kneel on the floor with hips back towards your heels and forearms on a chair.
- First, round your back up and breathe in.
 Then, as you breathe out, let it fall towards the floor in an arch shape.
- You should `feel' this in your mid-back especially when you let your back fall to the floor.
- If you 'feel' it in your lower back drop your buttocks all the way back to your heels.
- Make sure your arms are not too straight or pushing into the chair.
- Repeat 8-12 times, 2-3 times per day.





Kneeling Mid-Back Rotations

- Kneel on the floor, sitting back on your heels with your head on a towel and one arm behind your neck.
- Breathe out as you lift your head up, and at the same time twist your upper body.
- Hold this position for a few seconds then return to your start position as you breathe in.
- You should 'feel' this exercise working through your shoulder blades and not your low back.
- Repeat 8-12 times, 2-3 times per day.





Summary

- Active rest is key for complete healing and recovery from neck pain.
- Walking is an easy, convenient way to keep the neck and spine moving and is well tolerated by most neck pain patients.
- Specific mobility exercises such as the neck retractions & circles, the upper back cat and kneeling thoracic rotations can be added to your active rest routine.





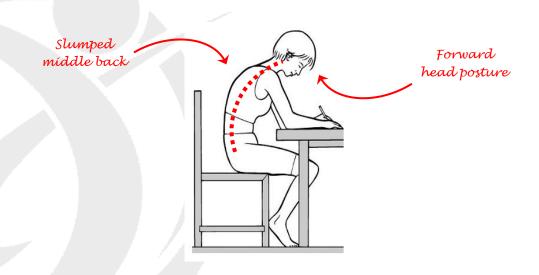
Spine Sparing

Slumped sitting

The human spine naturally forms an S-shape, with the spine curving forwards at the lower back, outwards at the middle back and forwards again at the neck.



However, when we sit most of us have a tendency to slump. This position reverses the lumbar curve and exaggerates the curve of the middle back driving the head forward. In this 'forward-head' position the muscles of the neck have to work much harder to restrain the head which leads to increased muscle tightness and potentially pain. It also places a greater strain on the joints of the neck which is one reason why sitting is a common factor in neck complaints.





To help maintain a good posture try using a lumbar roll when you sit.

A lumbar roll helps to restore the natural alignment of the lower back, automatically improving the posture of mid-back and neck. This in turn reduces the strain on the muscles and joints, reducing pain and stiffness.

While many chairs have a built-in lumbar support, it is often inadequate to properly align the spine because most chairs are designed for people of an "average" build.

If your chair doesn't have any lumbar support, or the lumbar support isn't substantial enough for your body type, a lumbar roll is an inexpensive but effective addition. They are also very useful for cars which often have a bucketed seat shape putting your spine into a slumped position.

Lumbar Roll Options

Rolled Towel

You can fashion your own lumbar roll by rolling up a towel and securing with some tape. Depending on the length of the towel and how many times you roll it, you can modify the size to fit your requirements. There are some obvious drawbacks with this method, but it is certainly better than not using a lumbar roll at all.





Foam Lumbar Roll

Foam lumbar rolls are a good costeffective option. They are responsibly cheap but effective (as long as they are the right size and shape for your spine and the chair you are going to be using it on).

The <u>66fit Lumbar Roll</u> also comes with a strap to secure to your chair, so you don't have to constantly reposition or replace it.



Inflatable Lumbar Rolls

The very best lumbar rolls are inflatable. Inflatable rolls allow you to:

- i. Individualise the fit to create the perfect support for **your** spine.
- ii. Create small but frequent changes in posture throughout the day, reducing the overall stress on your back.

We recommended the Innotech EmbraceAir Plus and LumbAir Plus (portable).





Prolonged sitting

Although maintaining a good posture when sitting can reduce neck stresses, holding any one posture for a prolonged period of time will still lead to increased stiffness and tension. You should therefore get up and move regularly – see the 'Microbreak' section above.





Pain relief strategies:

Rest positions

In severe cases of neck pain just finding a comfortable position can be difficult. The 'Foam Angel' position places the spine in a neutral position and opens up the chest and shoulders. This helps to reduce excessive tension in the neck and eases pain for most neck pain sufferers.

Foam angel rest position



- Lie on your back on the foam roll with your hands at your side and palms facing upwards.
- Gently tuck your chin to lengthen the back of your neck. (If you are very rounded through the mid back you may need a small pillow under your head.)
- Bring your ribs down to flatten your lower back (but do not tense your abdomen).
- Slowly breathe in and out for 3-20 minutes feeling your shoulders drop towards the floor with each exhalation.
- As your chest and shoulders relax you can slowly move the arms higher, but only move as far as you can keep the forearms on the floor.





Anti-inflammatory medication

Anti-inflammatory medication (NSAIDs) can be an effective option for short term pain relief in cases of muscle and joint injury, however research suggests that they should be used with caution.

Inflammation is commonly seen as "bad" and something that needs to be eliminated as quickly as possible. However, the reality is that acute inflammation is a vital first step in the healing process. When any tissue of the body is injured healing occurs in three phases:

- 1. The inflammatory phase.
- 2. The repair phase.
- 3. The remodelling phase.

Each phase of healing is necessary for the subsequent phase. In fact, it has been said that "Inflammation can occur without healing but healing cannot occur without inflammation".

Research shows that minimising the inflammatory stage of healing with the use of anti-inflammatory medication likely has some negative long-term consequences:

- "the use of these medications [NSAIDs] inhibits ligament healing, and thus, leads to impaired mechanical strength" [4]
- "NSAIDS appear to have a positive effect on the evolution of an acute ligament injury... **However**, in the long term, this rapid return is likely to be at the detriment of good healing [5]"
- "We do not recommend their [NSAIDs] use for muscle injuries, bone fractures (also stress fractures) or chronic tendinopathy." [5]

In summary, anti-inflammatory medication will likely decrease pain in the short-term but they may do so at a cost to complete tissue healing. If you do choose to take NSAIDs, you should take the minimum effective dose for the shortest possible time.





Contrast therapy

Contrast therapy involves applying alternating hot and cold to the injured tissue. It is a simple, safe and cheap method of aiding recovery and reducing pain. Heating and cooling helps to stimulate blood circulation and has a positive effect on inflammation. Cooling also has an analgesic effect and therefore contrast therapy can be a useful aid to reduce pain prior to performing mobilisation exercises.



Hot and cold can be applied in a variety of ways. With neck pain it is usually easiest to perform in the shower or using hot / cold packs. If using hot / cold packs make sure you wrap them in a teacloth to avoid contact burns.

- Apply heat to the neck for 1-3 minutes. Remove.
- Apply cold to the neck for 1-3 minutes. Remove.
- Repeat the process 3-5 times.
- For best results perform gentle mobilisation exercises (see above) after each bout of ice and heat or after the complete session.



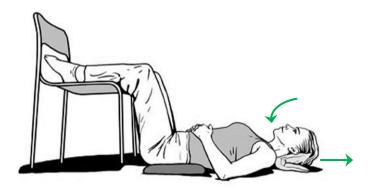


Reactivation

Neck pain often results in inhibition (shutting off) of specific spinal stabilisers which is part of the reason why patients often complain they feel weak or that their neck feels vulnerable. Reactivation exercises are important to 're-start' those key stabilisers helping to further reduce pain, improve movement and prevent re-injury.

NB: Reactivation exercises should be pain free and 'felt' in the targeted muscles. If the exercise causes pain or you are unsure whether you are performing it correctly, stop and check with your chiropractor.

Chin tuck supine



- Lay on your back with your legs resting on a chair (as shown).
- If you are very rounded through the mid back you may need a small pillow under your head.
- Place your tongue on your palate, lips together, teeth slightly separated.
- Slowly nod your head to tuck your chin and lengthen the back of your neck.
- You should feel the deep muscles of the neck working (front of your throat).
- If you cannot feel these muscles working, before nodding your head forcefully push your tongue to the roof your mouth (the same area you would push to make the 'n' sound).
- Hold for 10 seconds. Repeat 5-6 times 3-5 times per day.
- Common mistakes include; holding the breath, breathing into the upper chest & shoulders or flexing the whole neck instead of only tucking the chin.



Chin tuck prone



- Lay face down, resting on your forearms, with palms turned down.
- Relax and lower your chest to the floor so you feel your shoulder blades slide together.
- Next, push through your elbows to lift your chest and feel your shoulder blades separate.
- Continue to push away until your shoulder blades are separated as far as possible without rounding your mid-back or shrugging your shoulders towards your ears.
- As you push away nod your head to tuck your chin and lengthen the back of your neck.
- You should feel the deep muscles of the neck working (front of your throat).
- If you cannot feel these muscles working, before pushing away forcefully push your tongue to the roof your mouth (the same area you would push to make the 'n' sound).
- Hold for 10 seconds. Repeat 5-6 times 3-5 times per day.
- Common mistakes include; holding the breath, breathing into the upper chest and shoulders, hiking the shoulders, rounding the mid-back or flexing the whole neck instead of only tucking the chin.



Extra Advice:

Sleep

Sleep timing



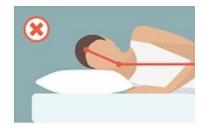
Sleep is extremely important, especially when recovery from injury. When tissues have been damaged, the rate of healing is greatest during sleep, whatever time of day the injury occurred [6]. Sleep also affects pain tolerance, with sleep disruption having been found to reduce pressure pain thresholds by 24% the next day [7]. It's therefore important to ensure you are getting enough sleep when recovering from neck problems.

Sleeping Position

For many patients with acute neck pain just trying to get to sleep can be a nightmare. Unfortunately, when it comes to what is the best sleeping position there is no definitive answer.

Side sleeping is generally well tolerated but it is important to ensure that the pillow is of the correct thickness and density to maintain your neck in a neutral position. Alternatively, try sleeping on your back with a thin pillow under the head.

Use pain as your guide and be prepared to switch positions regularly throughout the night in order to remain comfortable.







Nutrition

Pro-inflammatory diets (increased sugar, increased refined oils & decreased fruit & veg) and nutrient deficiencies can decrease tissue repair exacerbating current pains and predisposing to future injury. For more information, take a look at our Nutrition Resources Page.

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Let food be thy medicine & medicine be thy food - Hippocrates

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Images

Selected images reproduced from Liebenson. C., Journal of Bodywork and Movement Therapies.

