

## **Management of Cervical Spine Pain**

The resolution of pain involves gradually increasing the number of repetitions or resistance of the exercises performed. However, it is important to stay within a range that allows the body to adapt to the new stresses and not increase your present level of pain. Please use the following guideline to help with that.

Pain is generally rated on a scale of 0 (no pain/normal) to 10 (worst pain). At no point should exercise create more than a pain level of 1-4 or cause a steady rise in pain. Any increase in pain should be temporary and return to baseline with rest or modalities mentioned below. You should notice an overall decrease in your pain after a few sessions.

Should pain increase:

1. Stay at the same number of repetitions and resistance until your soreness decreases
2. Decrease the number of repetitions, staying at the same intensity, progressing more slowly the number of repetitions
3. Decrease both intensity and repetitions, progressing more slowly the number of repetitions

It is also important to make note of your function, as this may be your first indication of improvement.

### **Guidelines for Using Cold or Heat**

Cold:

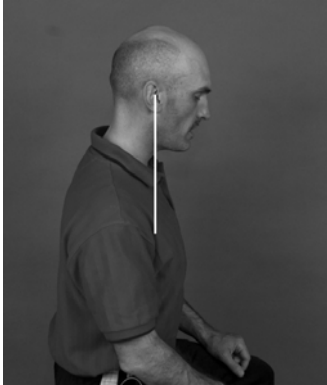
- Use bagged frozen vegetables (peas and corn conform best) or bag of ice about one inch thick with a small amount of water in the bottom. Get as much air out of the bag as possible. In the winter you can use snow. Apply for 20 minutes, leaving at least one hour between applications. You can secure the ice with a compression wrap if desired.
- Ice massage- make a small block of ice in a paper cup or mold and rub the affected area 5-10 minutes until the skin turns red. This technique can be used once an hour.

Heat:

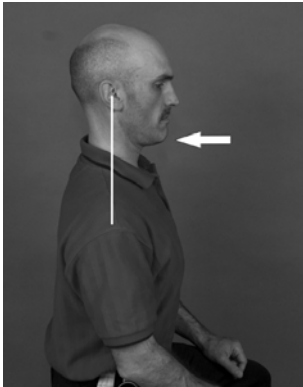
Place several layers of damp cloth between the skin and the heat source. It is left in place for no more than 30 minutes with two hours between applications. Do not secure heat in place with a compression wrap or weight.

**Improving Head and Neck Posture:** A mirror should be used in the initial stages to provide visual feedback that you are performing the exercise with correct technique.

The single most important thing you can do to help strengthen and re-activate the neck muscles is attempt to restore as close to a normal cervical spine posture and head position as possible (“cervical neutral”). Sometimes this is not possible; however the closer you can get to normal, the better your chances of managing your pain.



In most cases, neck pain causes a posture similar to the one seen here. The head is “looking down”, with the ear in front of the shoulder. This makes the upper back round, compounding the problem.

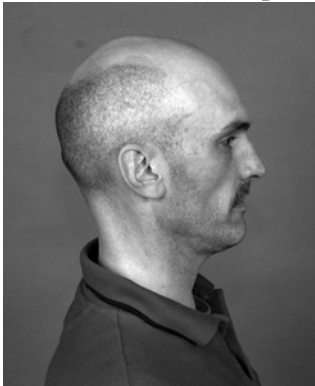


As seen here, the first step in correcting this posture is to pick the head up, level the chin and attempt to pull the ear back in line with the shoulder. This is called a “chin tuck”. It is not unusual to notice a temporary increase in your neck soreness as the muscles strengthen.

## Stretching

### “Cervical Clock”

Start from the neutral position learned on the previous page:



Sit down facing a mirror big enough where you can see your head, neck and at least your upper shoulders. Focus on a spot on the mirror that is straight out in front of you. Place a dot on the mirror if needed. This is the “center point” that your head rotates around. Keep your eyes focused on that spot. As shown in pictures 1A & 1B rotate your head left and right until you just lose site of that spot with your opposite eye. ie rotating head right, means left eye.

1A

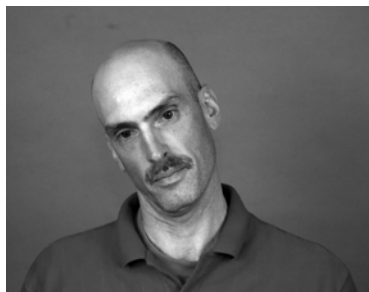
1B



The next set of exercises involves tipping the head left and right (Picture 2A & 2B). Imagine your head is rotating about an axis going from front to back.

2A

2B



Perform 5 repetitions in each direction, 2-3 times per day, holding each rep for 5 seconds.

**Two-part Strengthening Progression-** The cervical spine is supported by two sets of muscles, each needing its own exercise. Perform these exercises daily. The first exercise is for the deep muscles and is performed along with the next exercise.

Picture 1



Picture 2



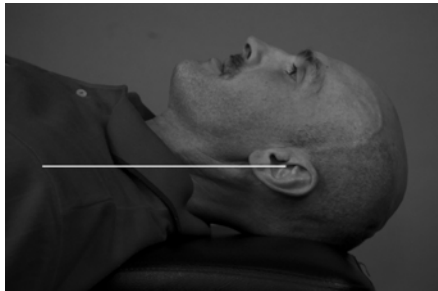
Picture 3



Place an empty hot water bottle partially filled with air or a towel under your neck for support (Picture 1). Press your neck down into it without bringing the chin toward the chest (Picture 2). Hold for 10s without repositioning your head or substituting with your long neck muscles. Picture 3 shows where to place your fingers to make sure you are not substituting with your long neck muscles. Build up to 10 reps.

The next exercise is for the long neck muscles. It has two stages.

Picture 4



Picture 5



Picture 6



As shown in Picture 4 lie on a firm surface, assume cervical neutral. Test to see if you can lift your head off the table as shown (Picture 5). If you can, elevate your head as far up from the table as possible without increasing your pain. **Stage 1-** 2 weeks in length. If you cannot lift your head 12 times, then use only the weight of the head. If you can perform 12 reps, add weight (Picture 6, cuff, sock with pennies etc) until you cannot perform 12 reps. Your goal over these two weeks is to build up to 15 repetitions. **Stage 2-** 4 weeks in length. Perform 3 sets of the 15 reps of the weight you initially used for stage 1. If that weight is easy to lift, then increase resistance as needed. Rest one-minute between sets.

Pictures 7 thru 10 show an alternate method to strengthen the neck muscles. From a seated position, loop a stretch cord of some type around your head (you can also make a loop with a towel or belt and attach the stretch band to it) and lean into the band. Perform 3 sets of the 15 reps in each direction.

Picture 7



Picture 8



Picture 9



Picture 10

