

Mobility Medicine – How to Maintain Neck Flexibility

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STORY AT-A-GLANCE

- Regularly practicing neck exercises such as lateral bending, occipital neck flexibility, eight-point isometric, and the figure eight exercise — will significantly increase your neck flexibility and range of motion, and reduce stiffness
- > These exercises are designed to strengthen the muscles around your cervical spine, thereby reducing the risk of neck pain and preventing injuries and degeneration
- > These neck exercises can also improve your posture by aligning the spine correctly. This, in turn, can alleviate tension headaches and chronic neck pain
- > The figure eight neck exercise, in particular, challenges balance and proprioception, enhancing mental sharpness and body awareness, which is crucial for daily activities and overall mobility
- > From beginners to more advanced individuals, these exercises can be adapted to fit anyone's fitness level, emphasizing the importance of starting slow, listening to your body, and progressively increasing intensity

An astonishing 68% of adults have damage in their discs, or cushions, between their cervical vertebrae. This is referred to as cervical disk degeneration. If you don't have it now, you will likely get it unless you are involved in a neck mobility program. An early sign of this might be noticing a popping or cracking sound, known as crepitus, when you rotate your neck.

This noise can occur due to the movement of joints, ligaments and tendons in the neck area. Some people might feel a grinding sensation, which could be due to the friction between your bones or cartilage.

When the disk between your cervical vertebrae shrinks as you age, it can lead to pain, stiffness, or even nerve-related symptoms if your disk affects nearby nerve structures.

Although I had no symptoms, I suffered from degeneration of my 5th and 6th cervical vertebrae when I was in my early 60s. As far as I know, there are no exercise programs to prevent this, which is why I created one for you.

I have several dear friends who are chiropractors and seven years ago I started seeing one regularly to address this condition. The treatments and the exercises they advised seemed to halt the progress of the condition, but I wasn't pleased that it wasn't completely resolved. I also noticed that I had sounds that occurred when I rotated my neck and was always concerned that it was related to cervical degeneration.

After I started working with Bahlon, I began to appreciate something that a chiropractor friend had told me and has stuck with me ever since: "Motion is the lotion." I love that statement because it is simple, accurate and precise. When we fail to move our body in the ways that it was designed to, over time, we will lose the mobility that we all had as children.

The following exercise is a perfect illustration of the creativity that is possible once you are reconnected with yourself. The potential of what you can create is nearly mindbending. Creativity is different for each of us and typically related to our passions. In my case, I had been struggling for three months trying to identify a set of mobility exercises that could restore my structure to that which I experienced as a child.

How I Created This Exercise

In mid-January 2024, I woke up at 11:11 PM. I was tempted to go back to sleep because it was far too early to wake up even though I went to bed at 6:30 PM. I recognized the number was a sign for me to get up and respond to the intuition that I was being given, and I'm glad I did because that was the morning that I created this neck exercise program that I later revised to the one below.

Over a few weeks, I began to understand that rotating my head in different directions was key to restoring its vitality, so I played around with adding and subtracting different modifications. This specific set of cervical mobility exercises has never been previously identified. Novel features include the integration of active isolated stretching with the near-infrared Light Magic bulbs.

I later came to realize that cervical mobility is not just about getting your spinal segments to move and rotate as much as they can, but to increase the strength and flexibility of supporting neck muscles. This is because tight neck muscles radically limit the movements in all planes of your cervical vertebrae. This would Include flexion, extension, rotation and side bending.

The objective of these exercises is to restore natural movement in your cervical spine, which is diminished for most of us due to lack of use. This is a perfect illustration of the "use it or lose it" principle.

Regularly practicing these range-of-motion exercises is crucial. Without them, there's a high likelihood of losing your neck mobility. Consistent exercise is key to maintaining the health and flexibility of your cervical spine.

• Stay mindful of comfort for all exercises:

- It's crucial to remain within a range that is comfortable and pain-free.
- Avoid any movements that cause discomfort or strain.
- Frequency for all cervical movements:
 - Perform as many repetitions as feels comfortable.
 - Trust your body's feedback to determine the number of repetitions.
 - Note that the optimal number may vary daily.

When combining these exercises with near-infrared light therapy, it's important to understand the positioning relative to the light source. Specifically, when performing exercises in front of the light(s) and tilting or extending your head backwards, the light directly illuminates two crucial glands: the thyroid gland in your neck and the thymus gland beneath your breastbone (sternum).

This exposure to specific light frequencies significantly benefits these vital organs by promoting their repair and regeneration.

Addressing the Most Common Degenerated Cervical Disks, C5 and C6

To prevent degeneration of these discs, it's vital to engage them in their available range of motion. Additionally, for those who already have some damage, certain movements can help in reversing or alleviating this deterioration. Ensuring regular movement in this area of your spine is crucial to preventing the degeneration of these commonly damaged spinal discs.

To introduce movement into these discs, start by rotating your head to one side while keeping your posture upright. Then, move your head forward as far as possible, effectively bringing your chin towards your chest and then extending back. After reaching the limit of this motion, rotate your head slightly — about an inch or two — and repeat the movement.

Continue this process, gradually rotating your head through various angles, covering a semi-circular motion across your upper torso. Aim to achieve this up-and-down movement in about 10 different positions to ensure a comprehensive range of motion for these cervical vertebrae.

Then rotate an inch or so to the other shoulder and repeat the process. Continue to rotate across your body so that you've moved your neck up and down in about 10 different positions covering the entire circumference over your upper torso. You can then reverse the direction and repeat a few times back and forth.

Integrating Active Isolated Stretching

Active Isolated Stretching (AIS) relies on the principle of reciprocal inhibition, which is the process where the contraction of one muscle (the antagonist) leads to the relaxation of the opposing muscle (the agonist). This neurological event is mediated by the nervous system and is a fundamental concept in kinesiology. Here's how it works step by step:

Contraction of the antagonist muscle – When you perform AIS, you actively contract the antagonist muscle. For example, if you're aiming to stretch your hamstrings (the agonist), you would contract the quadriceps (the antagonist).

Neural communication — The contraction of the antagonist muscle sends a signal through the nervous system to the spinal cord. This is due to the activation of the muscle spindles, which are sensory receptors within the muscle that respond to changes in muscle length and speed of length change.

Reciprocal inhibition activation – In the spinal cord, interneurons receive the signal from the muscle spindles of the contracting muscle. These interneurons then activate inhibitory neurons that connect to the motor neurons of the agonist muscle.

Relaxation of the agonist muscle – The inhibitory neurons release neurotransmitters that bind to the motor neurons of the agonist muscle, causing them to reduce their firing rate. This decrease in neural activity leads to the relaxation of the agonist muscle.

Increased stretch potential — With the agonist muscle now relaxed, it can be stretched more effectively and safely. The stretch is held for only about 2 seconds to prevent the activation of the stretch reflex, which could counteract the relaxation.

Repetition for effectiveness — The AIS stretch is repeated several times, with each stretch going a bit further as the muscles warm up and the nervous system adapts, allowing for greater range of motion over time.

It's important to note that the stretch reflex, which is a protective mechanism against muscle tears, is avoided in AIS due to the short duration of the stretch. The stretch reflex typically activates when a muscle is stretched too quickly or too far, but since AIS involves gentle and controlled movements, this reflex is not triggered, allowing for a more effective stretch that enhances flexibility and mobility without causing muscle tension or injury.

Integrating the AIS principles into mobility medicine allows you to rapidly increase your progression and reach your end goal as much sooner.

Benefits of Maintaining a Flexible Neck

There are many potential benefits of these exercises, as having a flexible neck will:

Reduce pain and tension – Regularly stretching and maintaining flexibility in the neck can help alleviate pain and reduce muscle tension. Tense neck muscles are often the source of headaches, and improving flexibility can decrease the occurrence of tension headaches and neck pain.

Improve your range of motion – Good neck flexibility contributes to a wider range of motion. This is essential not just for daily activities that involve turning and tilting the head, but also for maintaining balance and coordination as you get older.

Enhance your posture — Neck flexibility exercises can strengthen the muscles that support proper alignment of the neck and spine. Improved posture, in turn, can reduce your risk of chronic conditions related to poor spinal health, including degenerative disk disease.

Promote blood circulation — Flexibility exercises improve blood circulation in the neck area, which can facilitate the delivery of oxygen and nutrients to your brain and other essential parts of your body. Enhanced circulation may also aid in the recovery and health of your cervical spine.

Prevent injuries — Flexible muscles are less prone to injuries. By maintaining good neck flexibility, you can lower your risk of strains or sprains in the neck area, which are common issues that can lead to more severe health problems if left unaddressed.

Support nervous system health – Your neck houses pathways of nerves that supply different parts of your body. Maintaining flexibility in the neck can help ensure these nerve pathways remain unimpeded, supporting overall nervous system function and reducing your risk of nerve-related conditions.

Improve your sleep quality — Neck discomfort is a common reason for sleep disturbances. By enhancing neck flexibility and reducing tension, you may experience better sleep patterns, which is crucial for overall health and well-being.

Enhance overall quality of life and health span — Maintaining overall physical flexibility, including in the neck, contributes to a higher quality of life and may support healthier aging by enabling continued mobility and reducing the impact of age-related musculoskeletal degeneration.

Important Tips

It's important to approach neck flexibility exercises with caution, especially if you're experiencing neck pain or have a history of neck issues. Before performing neck stretches, it's a good idea to warm up with gentle neck movements, like nodding and turning your head side to side, to prepare your muscles.

Maintain normal breathing throughout the exercises, as this helps relax your muscles and increase the effectiveness of the stretches. Never push into pain. If you experience discomfort beyond a gentle stretch, stop and consult a healthcare professional. For best results, incorporate these exercises into your daily routine.

Consulting with a healthcare professional or a physical therapist before starting a new exercise regimen is advisable to ensure that the exercises are safe and appropriate for your specific health situation. That said, below are four simple and gentle neck

exercises that are appropriate for most people, demonstrated and explained by chiropractor Peter Martone.

Lateral Bending Exercise

Performing lateral bending exercises for neck flexibility can help improve mobility, reduce stiffness, and decrease the risk of neck pain. Here's a step-by-step guide to perform this exercise. Always ensure you move gently to avoid any strain or injury.

- **Starting position** Sit or stand with your body straight and shoulders relaxed. Keep your head squarely over your shoulders and your back straight.
- Lateral bend:
 - 1. Slowly tilt your head to the right, aiming to bring your ear towards your shoulder. Keep your left shoulder down, and do not lift it towards your ear.
 - 2. Hold the position for 15 to 30 seconds, feeling a gentle stretch on the left side of your neck. Try to stretch it another millimeter or two, but not to the point of pain.
 - 3. Next, add resistance:
 - a. Place your left hand against the left side of your head and gently push your head up and to the left, against your hand, for a few seconds.
 - b. Next, place your right hand against the right side of your tilted head and press down against it for a few seconds.
 - 4. Let go and bring your head back to midline.
 - 5. Repeat steps 1 through 4 on the left side.

Occipital Exercise

The occipital neck flexibility exercise is designed to enhance the mobility of the upper cervical region, specifically where the skull meets the spine. This exercise not only challenges the range of motion but also strengthens the muscles around the neck. Here's a step-by-step guide to perform this exercise safely and effectively:

- **Starting position** Sit or stand in a comfortable position with your back straight and shoulders relaxed.
- Occipital bend:
 - 1. Gently lower your chin towards your chest, aiming to stretch the back of your neck. This is the initial flexion movement that prepares you for the rotational stretch.
 - 2. Slowly turn your head to the right, aiming to look over your shoulder. This adds a rotational component to the stretch, targeting the muscles and joints at the base of the skull.
 - 3. Place your left hand on your left cheek and gently push your head with your hand to challenge the range of motion, moving it an extra couple of millimeters. This should be a gentle pressure, aiming to deepen the stretch without causing discomfort. Hold this position for five to 15 seconds, based on your comfort level.
 - 4. Next, press your cheek against your hand, creating resistance. This action engages the muscles, adding a strengthening element to the stretch. Against resistance, gently bring your head back to the center, aligning your chin with your chest again before lifting your head to the starting position.
 - 5. Repeat steps 1 through 4 on the left side.

Eight-Point Isometric Exercise

The eight-point isometric exercise is designed for cervical strengthening and tension release through isometric contractions in eight different neck positions. This exercise aims to stimulate mechanoreceptors in the neck, which can help release tension.

Isometric exercises involve muscle contractions without movement, effectively strengthening muscles without straining joints. Regularly performing these exercises can lead to improvements in neck mobility and flexibility. Here's a step-by-step guide to this exercise:

• Right and left turn isometric:

- 1. Sit or stand with good posture. Turn your head to the right.
- 2. Place your left hand on your left cheek. Gently push your head against the resistance of your hand.
- 3. Maintain this position for five to 10 seconds, then bring your head back to midline.
- 4. Repeat steps 1 through 3 on the opposite side by turning your head to the left and using your right hand.

Upward isometric:

- 1. Look upwards, tilting your head back.
- 2. Place the fingers of one hand on forehead and gently push your head into your fingers.
- 3. Maintain for five to 10 seconds, then bring your head back to a neutral position.

• Downward isometric:

- 1. Tuck your chin and lower your head toward your chest.
- 2. Place one hand on the back of your head and gently push into your hand.

- 3. Hold for five to 10 seconds, then bring your head back to a neutral position.
- Right and left turn with extension:
 - 1. Turn your head to the right and then extend to look upward toward the ceiling.
 - 2. Place the fingers or palm of one hand on your forehead and gently press your forehead against the resistance of your hand.
 - 3. Maintain for five to 10 seconds, then bring your head back to a neutral, midline position.
 - 4. Repeat steps 1 and 3 on the left side.

• Right and left turn with flexion:

- 1. Turn your head to the right, then look down toward your armpit.
- 2. Place your right hand on the back of your head and gently push against the resistance.
- 3. Hold for five to 10 seconds, then bring your head back to a neutral, midline position.
- 4. Repeat steps 1 and 3 on the left side.

Figure-Eight Exercise

The figure-eight exercise is a comprehensive movement that incorporates various ranges of motion to strengthen the neck, improve balance and proprioception, and enhance overall mobility. This exercise can help you maintain or improve your neck flexibility and prevent degeneration. Here's a step-by-step guide on how to perform it:

- Starting position:
 - Option 1 Stand with your feet hip-width apart, knees slightly bent, and your body in a comfortable, upright position. Ensure your environment is safe and

you have enough space around you.

- Option 2 If you're prone to dizziness or are just starting out, begin seated in a chair with your feet flat on the ground and back straight.
- Initial movement:
 - 1. Turn your head to one side (right or left) as far as is comfortable.
 - Gently move into an extension by tilting your head back to look up, as if aiming to see the sky or ceiling. This initial position challenges your balance and engages the neck muscles.
- Draw the figure eight with your nose:
 - 3. Imagine the tip of your nose is a pencil. Begin to draw a figure-eight pattern in the air. This movement should be smooth and controlled.
 - 4. Continue to draw this figure eight with your nose five or six times in a clockwise direction.
 - 5. After completing the clockwise direction, repeat the figure-eight motion in a counterclockwise direction five or six times.
 - 6. Repeat steps 1 through 5 on the opposite side.

Start with one or two figure eights and gradually increase the number as you become more comfortable with the exercise. As you improve, experiment with drawing smaller and larger figure eights to challenge your neck muscles and balance further.

If you experience any pain, especially when extending your head back, lessen the extent of your extension to a more comfortable range. If you feel dizzy at any point, stop the exercise. It's important to listen to your body.

Consistency Pays Dividends

In conclusion, incorporating the lateral bending, occipital neck flexibility, eight-point isometric, and figure eight neck exercises into your daily routine can significantly enhance your neck flexibility, strength, and overall health.

These exercises, designed to challenge your neck's range of motion, balance, proprioception, and strength, are instrumental in maintaining a healthy cervical spine. By regularly performing these movements, you can expect to see improvements in flexibility, which is crucial for reducing pain and preventing injuries.

Additionally, these exercises contribute to better posture, alleviate tension headaches, and may help in mitigating the onset of degenerative neck conditions.

Moreover, the benefits of neck flexibility extend beyond physical well-being. Improved balance and proprioception, fostered through exercises like the figure eight neck movement, enhance mental sharpness and body awareness.

So, whether you're looking to alleviate existing neck discomfort, prevent future issues, or simply maintain a healthy, active lifestyle, these exercises offer a comprehensive solution.

Remember, consistency is key to reaping the full benefits of any exercise regimen. Start slowly, listen to your body, and gradually increase the intensity and duration of your exercises as your strength and flexibility improve.

By prioritizing neck health through these targeted exercises, you're investing in a foundation of strength and flexibility that will support your overall health and well-being for years to come.