



Post-Operative Activity Guidelines After Cervical Surgery

The Low Back—The Platform for Good Neck Posture and Body Mechanics

The spine functions as an integrated unit, and poor posture in one part of the spine forces other parts out of alignment and balance. The discs, joints, muscles and ligaments of your neck are under the least amount of strain when the neck is balanced in a neutral position. In turn, in order for your head and neck to have good posture, you must have good low back posture because your low back (lumbar spine) provides the base of support for the rest of the spine. This is especially true when sitting but is also important when standing or bending.

The optimal position of the lumbar spine is called the lumbar lordosis. To picture proper lumbar lordosis, imagine your back as having a curve in the shape of the letter C with the closed side of the C facing the belly button and the open side of the C facing backward. A good lumbar lordosis provides the ideal platform for the rest of the spine and also minimizes the stresses on the discs and facet joints of the low back.

The Neck, Chest, and Shoulders

Good posture of the head and neck requires good posture of the chest and upper back, which in turn, rest on the foundation provided by the lumbar spine. The position for your chest and upper back is simple—chest up, shoulders back slightly, shoulder blades gently retracted (pulled back) toward each other slightly, and your chin pulled back slightly. This posture, called “the neutral spine,” should be used for sitting, standing, walking, and all activities of daily life. Although it may feel awkward at first, the more you use the neutral spine position, the more comfortable and balanced it will feel. Eventually it will become almost automatic. In this neutral spine position, there is much less tension in your muscles because they do not have to work as hard to hold the balanced posture.

Another way to help you feel the neutral spine posture is to picture a string attached to the top of your skull. Imagine this string being pulled gently but steadily upward toward the ceiling. As the string is pulled, your spine straightens, your neck feels longer, your head draws back, and your shoulders retract.

Bending Your Head Forward and Backwards

When you are in the neutral spine position, it is easier to bend and turn your head and neck properly. You can bend your head and neck forward (flexion), backwards (extension), rotate around the central axis (axial rotation), bend left and right (side bending), and do combination movements. When your neck is in the neutral position, turning or bending your head places less stress on discs, facet joints, and soft tissues.

Neck motion should occur at a pivot point or hinge at the very top of the neck at the base of the skull, not in the middle of the neck. If you need to read, keep the book or reading materials at eye level. Do not read in bed unless your head is fully supported and you are able to hold your reading material straight in front of you. Check yourself every few minutes to be sure you have not slumped down and correct to the neutral position if you have. Avoid extending your neck to look up overhead. Look straight ahead. If you have to reach over your head, get up first, and if necessary, stand on a secure stool or ladder and bring your body (and therefore your eyes) up to the work surface.

Two of the worst positions for your neck are craning up and back (as in changing a light bulb above your head) or bending too far forward (as in staying hunched over a book on a table that is too low). One good way to work overhead or below the knees while maintaining good mechanics is to imagine a “cervical strike zone.” In baseball, the strike zone is the area that extends from just below the shoulders to the top of the knees. In proper neck mechanics, the cervical strike zone extends from your eyes to the tips of your fingers when your arms are hanging at your sides. To work overhead, you can move your cervical strike zone upwards by standing on a secure stool or ladder, thus putting the task at eye level. To work closer to the ground, you need to lower your cervical strike zone by bending your knees but keeping a good lumbar lordosis.

When bending your head forward or backwards within the strike zone, the best technique is to use “the skull hinge.” When using the skull hinge, the axis for bending is at the base of the skull where it joins the top of your neck. Picture the base of your skull as a hinged joint. The middle and lower parts of your neck should not bend. To get a feel for the skull hinge, look down slowly towards the floor, bending at the base of your skull, and keeping your chin retracted. Concentrate on keeping the rest of your neck from moving. Feel the motion occur at the axle or hinge at the top of your neck. Practice nodding your head using the skull hinge. As you lower your chin to your chest, you may feel some resistance, but it is rare to ever need to touch your chin to your chest.

Turning Your Head

The best way to turn your head to the left or right is to rotate your entire body as a unit. This is not usually practical, unless you have a chair with a swivel seat. An alternative is to rotate your upper body as a single unit at the hips, just below the waist. There is no rotation at the head or neck, and there is less stress on the low back as well.

Working at a Desk or Table

Sitting at a desk properly is much more difficult than it might seem and presents a major ergonomic challenge. Some of the factors that contribute to sitting posture include the desk chair, the desk itself, the computer keyboard and monitor, and the size of the person who is sitting. Most variables can be adjusted to minimize the negative impact of deskwork.

Depending on proper or improper use, the height and angle of your writing surface can either relieve or create neck pain. Adjust your work surface to allow you to sit up straight, keep your head and neck directly over your shoulders, look straight ahead, and bend at the base of the skull. If your work surface is too low, you may find yourself tending to slump in the low back, round your shoulders, bend your upper back forward, and stick your neck forward, which places excess strain on the neck and low back. One solution is to use an adjustable height drafting table or a fixed-height standing desk or raise a conventional desk to the desired height by putting it on blocks. The angle of the writing surface can be adjusted by raising the back of the desk more than the front. A slant board, which is a portable surface that you place on the desk, works well to provide the best working angle and will hold books, papers, and keyboard. As mentioned above, the keyboard should be adjusted to allow you to work with both elbows at right angles while typing. If the desk is too high, a keyboard tray attached under the top surface of the desk will lower it.

Your computer monitor should be placed directly in front of you, not at angle. If you have a narrow desk, you may be tempted to put the monitor off to one side. This is a very awkward position that forces you to turn your upper body and neck. If your desk is too narrow, move it away from the wall to provide the necessary space. The height of the monitor should be adjusted so your eyes fall naturally on the middle of the screen.

When you are working from source material such as a text or notes, take care to properly position them. The best positions are between the keyboard and the monitor, propped up on a slant board, or held at eye level next to the screen by an attachable paper holder. Avoid placing the source material on the desk off to either side, since this will cause you to rotate and flex your head and neck.

Talking on the Telephone

A hands-free telephone headset is a must if you talk on the phone for long periods of time, especially if you write while you are talking. A headset eliminates the need to cradle the telephone between your ear and your shoulder, which is a terrible position for your neck. A speaker phone also works well, but in general, voice quality is better with headsets.

Bathroom Sink Activities

Find your neutral standing position. Sometimes it is helpful to stand back, a foot or two away from the sink so you don't have to look down so far. Avoid bending your neck to brush your teeth. Look straight ahead into the mirror. To spit, bend your knees and bend at the waist while keeping your head and neck neutral with respect to your torso. Alternatively, you may find it easier to spit into a cup that you hold at mouth level.

Showering

Maintain abdominal bracing throughout. Use a long-handled scrub brush or sponge to reach your feet and back. Stand directly under the water to wash or rinse your hair. Don't bend into the spray. You might find soap on a rope to be helpful or you may tie soap in an old nylon stocking to keep it from dropping. Keep the shampoo and soap within easy reach. A shower caddy eliminates the need to bend.

Getting Dressed

Getting dressed in the few days or weeks after surgery may be a real challenge, especially if you have had a large surgery. One goal is to always try to keep your back straight and avoid bending at the waist. To make it easier, try the following:

- Wear loose-fitting clothes that are easy to put on and take off.
- To get dressed, support your back by leaning against a wall or lie down on your back. Some people find it easier to put on underwear and pants while lying.
- If necessary, you may be provided a reaching tool at hospital discharge to pull the pants over your feet.
- Put shirts or blouses on while standing.
- Women may find it helpful to fasten bras in front and then slide around to the back.
- Put on socks while standing, leaning against the wall for balance.
- Slip-on shoes or sandals may be easier than tie shoes.

If you get dressed seated, make sure that you are able to maintain your neutral position and keep your back straight. Remember, don't bend your back.

Housework

Limit housework initially after surgery. After a few weeks, you may perform household activities if you are strong, well trained, and can maintain neutral positioning.

If you find that you are unable to maintain good body mechanics, make sure that you get the help you need from a family member or a friend until you feel comfortable doing these things yourself.

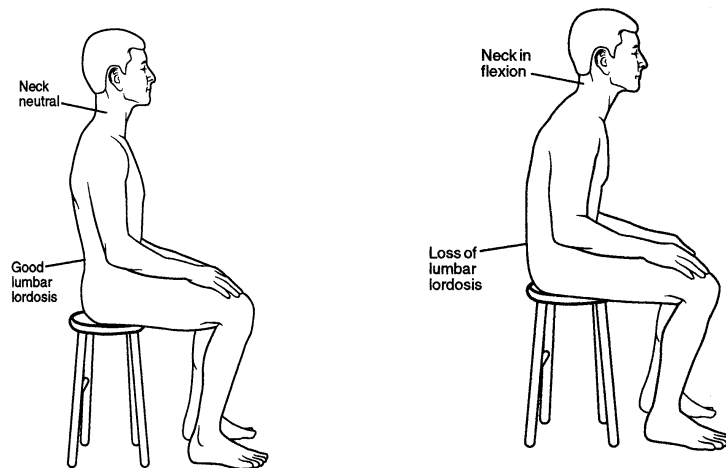
Kitchen Work

Keep lightweight items in the refrigerator at chest height and stand close to reach them or you may bend at your knees and shift your weight forward to do this. If items are below your reach, squat or kneel with a straight back. Keep pots, pans, dishes and utensils at counter level where you can easily reach them.

At first, you may find that preparing lightweight microwave meals is easier. When carrying any pans and/or food items, hold them close to your body. Kneel or sit with a straight back to access utensils below your reach. Maintain abdominal bracing as you perform all activities. Keep your back stabilized in its neutral position. If you must bend, make sure that you use your knees and hips and brace yourself by placing your hand on the counter. If you must load or unload the dishwasher or oven, make sure to keep your stomach muscles braced, your knees bent, and your back straight.

Sitting

As mentioned before, in order for your neck to be balanced and in a neutral position, the posture of your low back must also be good. To feel the effects of good lumbar versus bad low back posture on your neck, sit in a good chair with good lumbar posture. Gently pull back your shoulders and shoulder blades, bringing your chest up, which will allow your neck to rise up to its correct position. Keep your chin parallel to the floor. This posture should feel natural and not strained. Then allow yourself to slump. Lose the lumbar lordosis. Observe what happens to your upper back and your neck and head. The upper back will curve and your head and neck will stick out. This poor posture places strain on the discs, joints, ligaments, and muscles of your neck. Proper sitting, especially if you have back problems, is very important.



Good Sitting Posture

Poor Sitting Posture

Chairs

There is no best chair for the back. The most important thing you can do is try one out. If it feels comfortable in the store, then try it out at home or in your office. If the company does not have a full return policy, do not buy that chair. An excellent book to learn about chairs is called The Chair, by Galen Cranz. It is filled with useful information and is very easy to read.

Your chair must be the right height. When you sit in the chair, your feet should be flat on the floor and your knees should be slightly lower than your hips. The front edge of the cushion should be rounded and not sharp and firm. Most ergonomic chairs have lumbar support. Be sure you use it. If you don't, then you might as well use a stool. An alternative to a regular chair is a kneeling chair, which was designed to protect your back and still fit under a standard desk or table. Some people love these chairs, but others do not find them comfortable.

Sleeping

Sleep posture is a difficult problem, because even when the bed is prepared for maximum support, the normal twisting and turning during the night causes pillows and neck supports to move. Sleep specialists have learned that most people have a preferred position in which they spend most of the night. Therefore, it can be useful to set up your bed to provide maximum support for this position. If you sleep primarily on your back, place a cylinder roll or pillow under your neck and a flat pillow under your head so the overall alignment of the neck and spine is neutral. If your pillow is too high, it will place your neck into too much flexion. If you sleep on your side, place a larger diameter pillow under your neck and a smaller diameter pillow under your head so the overall neck alignment is straight rather than curved. Many people find a water pillow works best to improve sleep posture.

Pillows

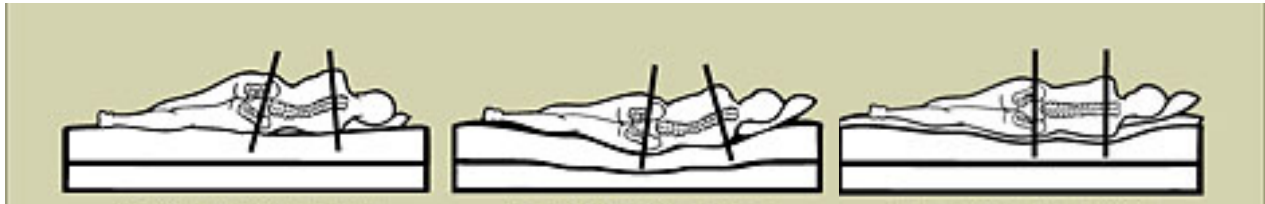
Advertisements for neck pillows have increased in recent years, and all claim to have the best product. A water pillow such as Mediflow™ usually provides the best spine alignment. Foam pillows also seem to work well.



Mattresses

Your mattress should have the correct amount of firmness to keep your spine in a neutral position when you are lying on your side. When side lying, if the mattress is too firm, the shoulders and hips will take the pressure and force the lumbar spine to sag, putting your entire spine out of alignment. If the mattress is too soft, there will also be excess sagging. There is no evidence that a firm mattress is best, and contrary to popular opinion, too soft may be better than too hard. Your best bet is to purchase a mattress that can be returned if it is not satisfactory.

There is no best mattress for every bad back. Many people prefer a firm foam mattress such as TempuPedic™. Others prefer an air mattress such as Select Comfort™. Both are available in many stores and malls. The Dux Bed™ has also been helpful to many patients, but it is more expensive. The drawings below are from the Dux Bed™ ads on their web site.



This mattress is too hard.

This mattress is too soft.

This mattress fits.

First Aid After Cervical Surgery

Almost everyone who has neck surgery will experience flare-ups of pain during their recovery. This is a normal part of recovery. When you have increased pain, you should stop and think about what caused the worsening and use the flare as an opportunity, although a painful one, to learn your limits. Use the program of neck first aid that is outlined below when you are feeling worse.

Rarely, there are problems that are serious and require the evaluation of a doctor. Please do not hesitate to call us if you experience any of the following, especially in the first week after you get home:

- Severe worsening of pain
- New type of pain or numbness
- New weakness in your arm or hand
- Fever
- Severe headaches
- Difficulty breathing or shortness of breath
- Loss of control of bladder or bowel function
- Drainage from your incision
- Significant difficulty swallowing

Neck Rest Position

Resting your neck means putting it in a position that unloads the muscles, discs, and joints. It is a very useful posture for flares of pain but is also useful as a preventive measure during periods of prolonged sitting or other sustained postures that may strain the neck. To use the neck rest position, lie on your back facing up on a firm surface such as a carpeted floor. Bend your hips and knees, but keep your feet flat on the floor, parallel to each other. Place a tightly rolled dish towel under your neck near the base of your skull. Let the muscles of your neck, shoulders, and upper back relax. Stay in the neck rest position for fifteen minutes before returning to normal activities.

Ice

Ice is very helpful for pain control, and its value is often under-appreciated. Ice can relieve pain and decrease inflammation. Ordinary ice cubes in a freezer bag work well, so there is no need for special ice bags or prepackaged “blue ice.” Regular ice is also safer since it is far less likely to “ice-burn” the skin. Put several ice cubes in a freezer bag, then wrap the bag in a thin dish towel and place it directly over the painful area for about 15 minutes. You can repeat ice treatment every three to four hours. Although ice may feel uncomfortable when you first put the pack on your skin, the cold will soon penetrate into painful and inflamed tissues and ease pain for several hours. It is advisable to pack empty freezer bags for ice treatment when traveling.