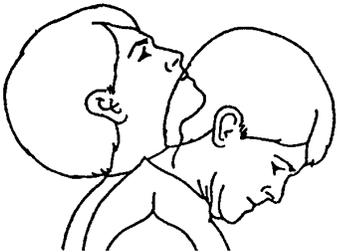


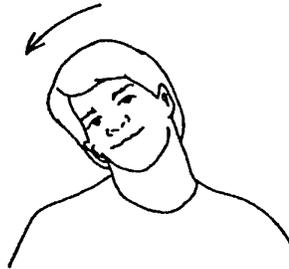
Purpose: Stretching exercises help to restore joint range of motion by lengthening shortened muscles and connective tissue, which helps to reduce pain and tightness.

- Instructions:**
1. Perform highlighted stretches initially **1-2 x/day**, or _____
 2. Hold each stretch **30-60 seconds** if tolerated for lengthening of muscles; repeat 2-3x/each or _____
 3. Stretch to your **pain-free** end point, then breathe deeply through your belly and relax as you exhale. This will encourage maximal range in that stretch.
 4. It is best to stretch with a warmed-up body, about the temperature that causes a light sweat.
 5. For pain reduction, it is best to stretch tight muscles at night just before going to bed.
 6. If it is not tight...**DON'T STRETCH IT!** When tight muscles are no longer tight, you may decrease frequency to 2-3 times per week.
 7. Maintain **good, upright posture** with all stretches and **avoid shrugging your shoulders!**



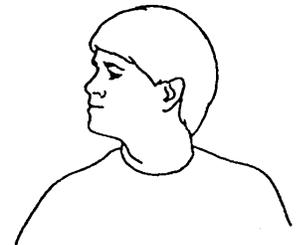
FLEXION / EXTENSION

Bring your chin toward your chest; hold. Return to upright, then bring your head back; hold. Hold the back of your neck with your hands if you need more support.



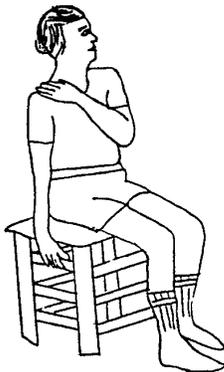
SIDEBENDING

Bend your ear toward your right shoulder while looking straight ahead; hold, then alternate.



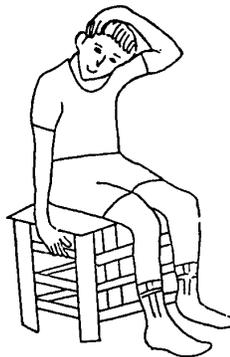
ROTATION

Turn to look over your right shoulder; hold, then switch sides. Add gentle hand pressure at the chin as tolerated for more stretch.



SCALENE

Sit with your right hand holding edge of chair. Place your left hand over your right collarbone to stabilize. Pull chin back, tip ear toward left shoulder, turn to look over left shoulder and hold. Repeat on right side.



UPPER TRAPEZIUS

Sit with right hand holding edge of chair. Move chin towards chest, tilt your left ear toward your left shoulder turn right to look up toward the ceiling. Left hand can be used for overpressure-**DON'T PULL**. Repeat to right side.



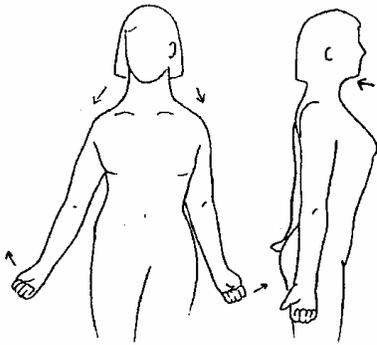
LEVATOR SCAPULAE

Sit with right hand holding edge of chair. Tip chin towards chest, tip ear toward your left shoulder and nose toward your left armpit. Left hand can be used for gentle overpressure-**DON'T PULL**. Alternate.

MODIFICATION: Begin in the same position, but now tip left ear to left shoulder, and tip head back as if drinking out of a cup.

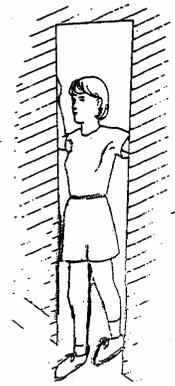
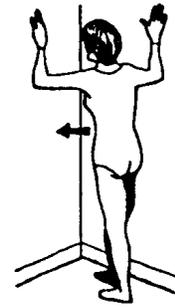
For a deeper stretch: Lift right arm up and place hand behind neck. Avoid shrugging. Tilt left ear toward left shoulder, turn head to left, and bend chin down. Alternate.

Thoracic Spine & Postural Stretches



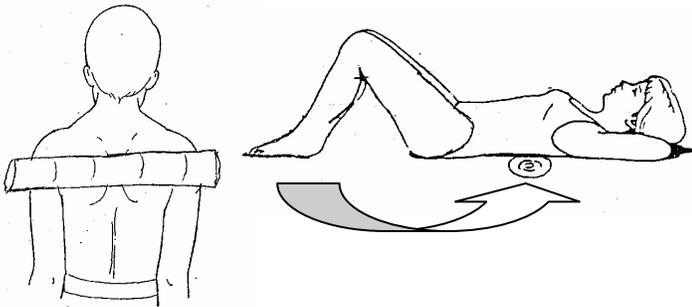
HEAD AND SCAPULAR RETRACTION

Pull chin straight back (without tucking it down). Squeeze shoulder blades down and together, then rotate palms outward and hold.



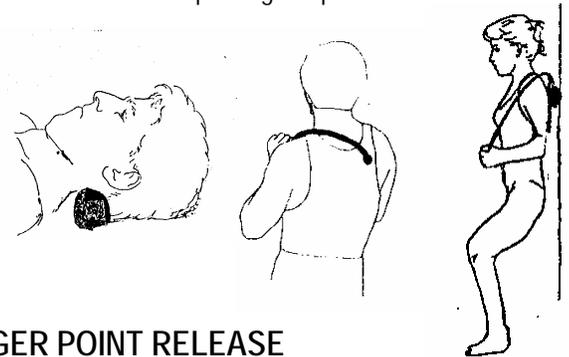
PECTORALS

Stand either in a doorway or facing a corner. Place your palms/forearms on each side of the corner or doorframe. Place one foot in front of the other and lean your chest forward and hold. Support your body with your legs, not with your arms. Keep your head and chest up in a good posture.



THORACIC TOWEL ROLL STRETCH

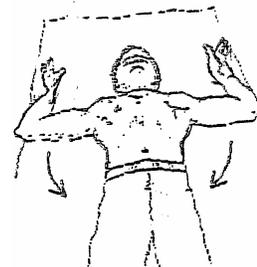
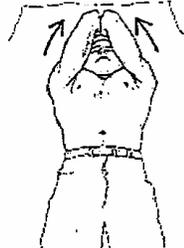
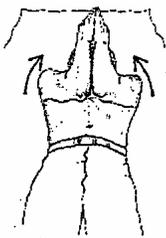
Lie on your back with knees bent, and place a towel roll across shoulder blades. Relax for as long as tolerated up to 5 minutes, 1-3 times per day. As this becomes more tolerable, raise arms above head and tuck chin for a better stretch. To stretch chest muscles, tuck chin and place arms at sides, elbows bent and positioned at 90 degrees. **ALTERNATE:** Place towel vertically.



TRIGGER POINT RELEASE

Using a Theracane, tennis ball, or trigger ball, give gentle direct pressure to tight muscles and knots. Hold or gently massage areas 60-90 seconds each, once daily. Tip: Placing two tennis balls in a sock works well to release the suboccipitals and improve headaches; use the tennis ball against the wall for knots along shoulder blades.

LOWER TRAPEZIUS MOBILIZATION



Step 1: Sit, stand or lie on your back. Place your elbows, forearms and palms together in front of your chest.

Step 2: Keep your elbows as close together as possible while you raise your elbows over head.

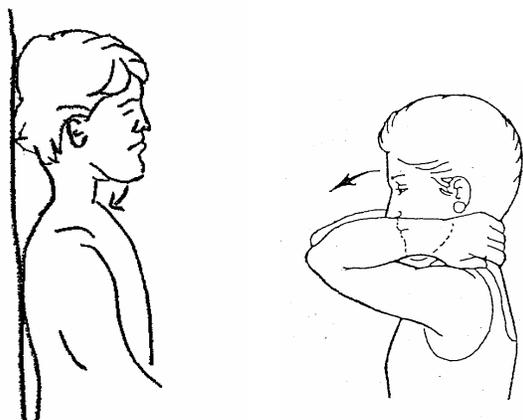
Step 3: Turn your palms up then out. If lying, try to lower your arms to the floor.

Step 4: Lower your elbows down the sides of your body. If lying, continue to keep your elbows in contact with the floor. Keep palms turned out as if you're opening curtains.

Step 5: Straighten your elbows and pull your hands down along you sides. Pause and relax while breathing slowly. Repeat the stretch 2-3 times.

Purpose: The most common muscles to become weak for those with neck dysfunction are the cervical flexors. The deep neck flexors are significant contributors to the stability of the cervical spine. These exercises will strengthen the deep flexors to improve posture and decrease strain on the spine, which can decrease neck pain and headaches.

- Instructions:**
1. Hold 10 seconds & Repeat 10 times.
 2. Maintain DLC.
 3. Complete 1-2 times per day.
 4. This should be **pain-free**. Drop back at least one level and consult your therapist if this causes pain.
 5. Progress to the next exercise when you can complete a **10 second hold for 10 repetitions** without fatigue.
 6. Once able to perform level 3 easily, decrease frequency to 1x/week to maintain strength.
 7. If participating in circuit program, you may discontinue this exercise.



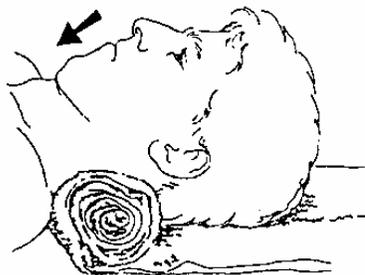
LEVEL 1: SEATED HEAD NOD

Sit upright with good posture. Hold your neck with your hands or sit or stand against a wall with the back of your head against the wall for some support. Gently nod head by bringing your chin toward your Adam's apple. You should feel the back of your neck stretch and the front of your neck tighten.

DO NOT ALLOW THE LARGE MUSCLES IN THE FRONT OF YOUR NECK TO TIGHTEN (you can place your fingers on the front of your neck to make sure.) Focus on the small muscles around your throat.

Hold 10 seconds, repeat 10 times.

ALTERNATE: Complete while sitting in your car with your head against the head rest.



LEVEL 2: SUPINE HEAD NOD

Lie on your back with your head on a firm surface and a towel roll under your neck. Gently nod your head by bringing your chin towards your Adam's apple. Do not lift your head off of the table, and maintain contact with the towel roll. Feel the back of your neck lengthen and the front of your neck tighten.



LEVEL 3: SUPINE HEAD LIFT

Lie on your back with your head on a firm surface and a towel roll supporting your neck. Gently nod your chin toward your Adam's apple and lift your head up slightly. Do not lose contact with the towel roll. Feel the back of your neck lengthen and the front of your neck tighten.



Physicians' Diagnostics
& REHABILITATION

Cervical Isometric Exercises

Purpose: To strengthen muscles in the neck and/or maintain strength gained in the MedX machines.

- Instructions:**
1. Do only the exercises instructed by your therapists.
 2. **Remember to hold the DLC**, then begin the exercises.
 3. Hold each exercise for a total of **10 seconds**. Ramp up the pressure into your hands (or ball) for 2 seconds, push at maximum pressure for 6 seconds, then slowly release the pressure for the final 2 seconds.
 4. Repeat the sequence for a total of **three to six repetitions**, trying different joint angles if instructed to do so.
 5. Exercise **2-3 times per week**, not 2 days in a row, performing instructions from your therapist.
 6. There should be no movement of your head while pushing; however, your therapist may instruct you on how to do each exercise in various positions throughout the range of motion.

HAND ISOMETRICS



EXTENSION

Clasp both hands behind your head, use a towel sling, or furniture headrest. Attempt to tip your head back to look up at the ceiling while resisting with your hands



SIDEBEND

Place your right hand above your right ear. Attempt to tip your right ear toward your right shoulder while resisting with your hands. Repeat on the other side.



ROTATION

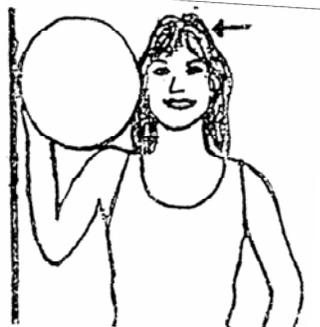
Place the heel of your right hand against the side of your forehead. Attempt to turn your head to the right while resisting with your hand. Repeat on the other side

BALL ISOMETRICS (ALTERNATE EXERCISE)



EXTENSION

Cradle ball at base of skull. Push head back into the ball then tip your head back as if trying to look at the ceiling



SIDEBEND

Place the ball on your right shoulder. Push head in and down against the ball as if toward your shoulder



ROTATION

Place ball at right side of forehead. Push cheek into ball and turn your head in the direction of the ball. Do not turn your body.

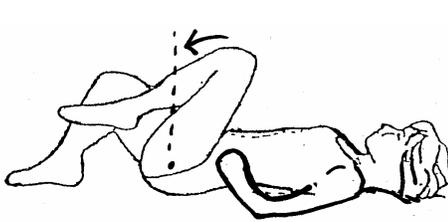
Core Stabilization Exercises

Purpose: These exercises will strengthen and improve coordination of the trunk muscles which is needed to help maintain active balanced posture and lumbar stability. Core strength helps decrease strain on the spine and ultimately helps to decrease back pain.

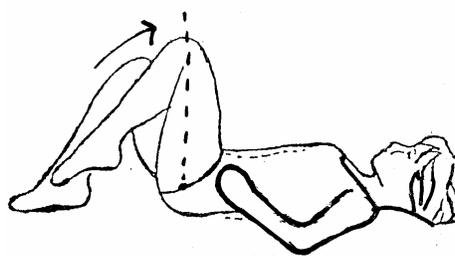
- Instructions:**
1. Do only the exercises indicated and instructed by your therapists.
 2. Remember to hold **Deep Layer Contraction Muscles (DLC)** then start the stabilization exercise.
 3. Exercise 3 times per week, not 2 days in a row, performing instructions of your therapist.
 4. Stop if pain symptoms significantly worsen or radiate and consult your therapist.
 5. **Slowly repeat each exercise for a maximum of 2 minutes.**
 6. _____
 7. **Progress to the next level of exercise when able to complete 2 minutes without maximal fatigue.**

1. Lower Abdominal Exercise: Maintain DLC

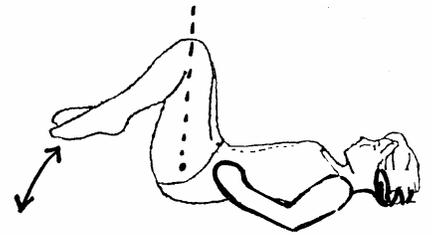
Position on your back with knees bent. Maintain a deep core contraction, and **neutral, balanced low back curve throughout; do not arch or move your back while moving the legs.** Repeat each exercise for 20 repetitions or up to 2 minutes.



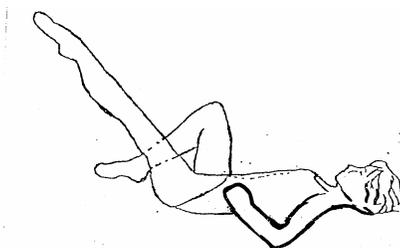
Level 1: Either bring one leg up past 90 degrees (easier), or stop at 90 degrees (harder). Lower it slowly back down to the floor. Alternate and repeat.



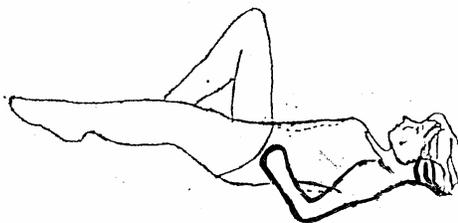
Level 2: Bring one leg up to 90 degrees, and then bring the other one up to meet it. Lower one leg down to the floor. Lower the other leg down to the floor. Alternate lead leg and repeat.



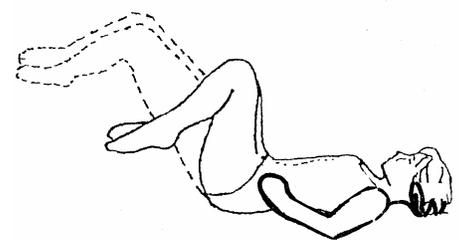
Level 3: Bring one leg up to 90 degrees, and then bring the other one up to meet it. Lower one leg down and just tap your toe on the floor, and return back up to 90 degrees. Alternate and repeat.



Level 4: Bring one leg up to 90 degrees, and then bring the other one up to meet it. Straighten one leg out and drop slightly (less than 45 degree angle). Return to starting position. Alternate and repeat.

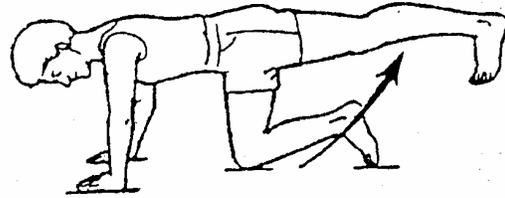
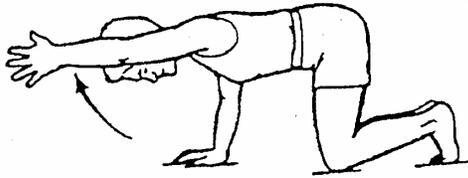


Level 5: Bring one leg up to 90 degrees, and then bring the other one up to meet it. Straighten one leg out and drop down to just above floor. Return to starting position. Alternate and repeat.



Level 6: Bring one leg up to 90 degrees, and then bring the other one up to meet it. Straighten both legs and drop slightly (less than 45 degree angle). Return to starting position and repeat.

2. Level 1: Alternate Arm or Leg Lift: Maintain DLC

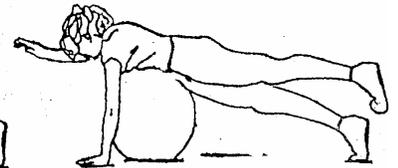
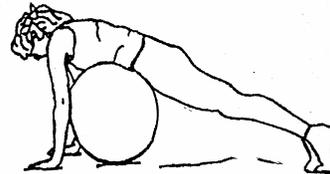
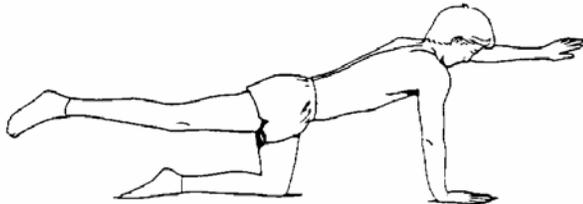


Position on hands and knees. Maintaining a deep core contraction, lift one arm out in front of you. Hold this position for **10 seconds**. Repeat with the other arm. Return arm to floor and lift one leg behind you, keeping a level pelvis and tight core. Hold this position for **10 seconds** and then repeat with the other leg. **Repeat up to 12 repetitions (2 minutes)**.

MODIFICATION: This exercise can also be performed on your stomach if you have a wrist, shoulder or knee problem.



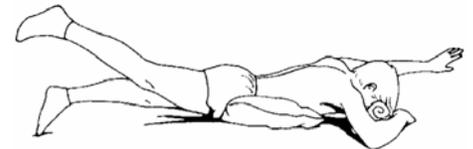
Level 2: Alternate Arm and Leg Lift: Maintain DLC



Maintaining a deep core contraction, simultaneously raise one arm out in front of you, and raise the opposite leg. Hold this position for **10 seconds**. Alternate sides, and keep your pelvis level. **Repeat up to 12 repetitions (2 minutes)**.

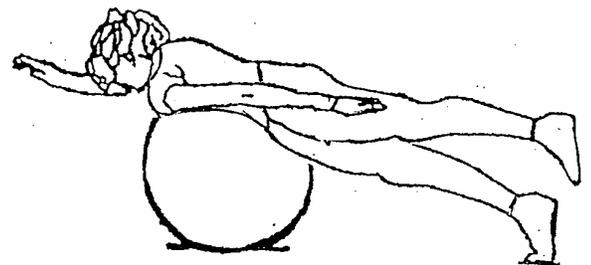
ALTERNATE: Perform on ball, placing ball under abdomen and help balance on toes and hands (don't put all of your weight through your hands and toes).

MODIFICATION: This exercise can also be performed on your stomach if you have a wrist, shoulder or knee problem.

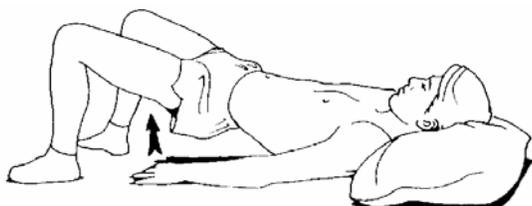


Level 3: Alternate Arm and Leg Lift: Maintain DLC

Perform on ball, balancing on toes and abdomen. Perform a swimming motion with arms, i.e. as right arm is out in front of you, left arm is at your side and your left leg is raised behind you. Repeat on the other side. **Hold each position for 10 seconds, repeat up to 12 repetitions (2 minutes)**.



3. Level 1 Bridge: Maintain DLC

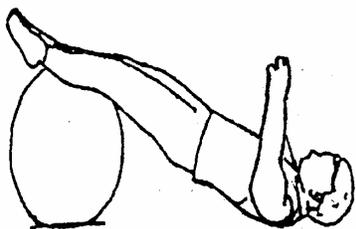


Position lying on back with legs bent, and arms at sides. Placing palms up aids in facilitation, so do this if able.

- **1st Set:** Lift hips off of floor using abdominal muscles (not buttocks), rolling up one vertebra at a time. **Hold 10 seconds.** Lower hips slightly and lift again focusing on abdominals to do the work. **Repeat up to 6-12 repetitions (1-2 minutes).**
- **2nd Set:** Lift hips off floor using hips and buttock muscles this time, rolling up one vertebra at a time. **Hold 10 seconds.** Lower hips slightly and lift again using buttocks to push hips up. **Repeat up to 6-12 repetitions (1-2 minutes).**

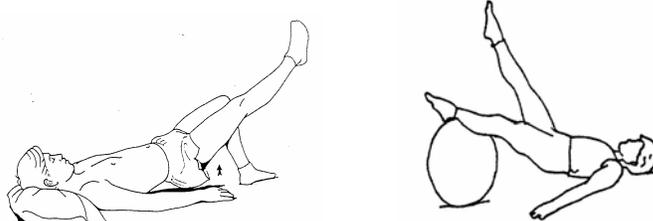
ALTERNATE: Perform on ball, placing ball under legs below the knee.

Level 2 Bridge: Maintain DLC



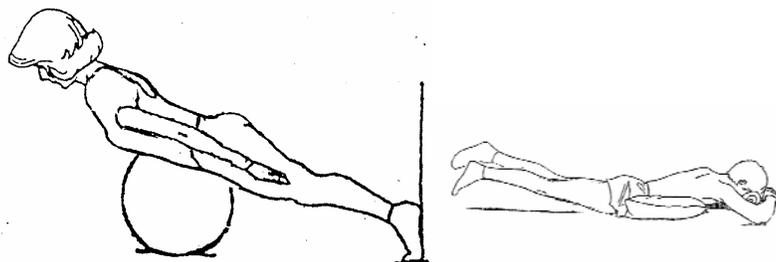
Hold arms to the ceiling and complete as in level one. Complete the two sets described in level 1.

Level 3 Bridge: Maintain DLC



In an extended bridge, lift one leg off the floor or ball and **hold for 10 seconds**, while maintaining a level pelvis. Repeat with the other leg, keeping hips up from the floor. **Continue for up to 12 reps (2 minutes).**

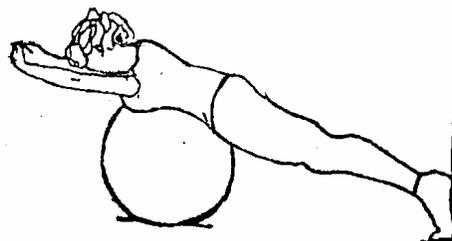
4. Level 1 Trunk Extension: Maintain DLC



Lie on stomach over the ball with your feet against the wall, arms at your side or behind you. Lift your trunk or chest off the ball. Maintain spine in a neutral position, careful not to arch your back. **Hold for 10 seconds**, lower slowly and repeat up to **12 repetitions (2 minutes)**.

ALTERNATE: Perform exercise on the floor, lifting both legs.

Level 2 Trunk Extension: Maintain DLC



Progress By:

- Positioning arms out in front of you
- Holding weights in your hands as arms are out in front of you
- Increase hold time

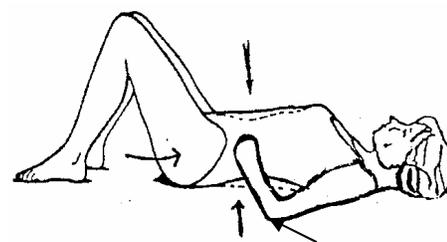
Active Balanced Posture: 4-Step Deep Layer Core Contraction

Purpose: The core is where the body's center of gravity is located and where all movement begins. A strong, efficient core is necessary for building and maintaining proper muscle balance and posture throughout the entire body.

- Instructions:**
1. These exercises should be pain-free. You will feel a deep sense of fatigue after completion.
 2. Hold all 4 contractions for **10 seconds, and repeat 10 times**. Once you can perform this easily, you will be ready to progress to performing movements while you hold the contractions, but you must master the 4-step deep layer contraction first.
 3. **Goal is to hold 5 minutes, 3-5x/day** while incorporating into daily, functional activities, such as sitting, standing, lifting your child or laundry basket, vacuuming, etc.

Step 1: Pelvic Floor Contraction (Kegel Exercise)

- Performed in sitting, supine (lying on back) with knees bent, quadruped (on hands and knees), & standing.
- Lightly contract the muscle as if you were going to cut off the flow of urine midstream.
- Do not perform a maximal contraction, only contract at 50% – pretend your pelvic floor is an elevator, contract slightly for the first floor, and a little harder for the second floor, and a maximal contraction for the third floor. For the exercise, stop at the second floor (or 50%) contraction and hold, then move to step #2.
 - Avoid squeezing your buttocks together, squeezing your legs, tilting your pelvis, or holding breath.



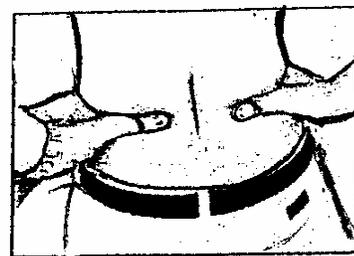
Step 2: Lower Abdominal (Transversus Abdominis) Contraction

- Can best be performed in quadruped (on hands and knees); but can also be performed in standing, sitting, and supine with knees bent.
- While maintaining your pelvic floor contraction, draw in or pull your lower abdomen in and up toward your spine (bringing your belly button toward your spine), or think of drawing your abs in and away from the elastic of your pants.
- You can feel this contraction by pressing your fingers just inside of your front hip bones.
 - Avoid tilting your pelvis, holding your breath, using your upper abs, or sucking in your stomach.



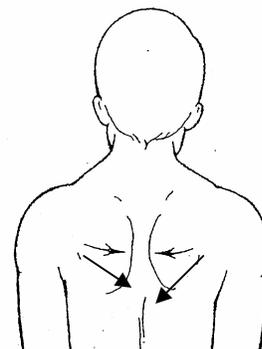
Step 3: Spinal (Multifidus) Contraction

- Can best be performed in prone (lying on stomach); but can also be performed in sitting and quadruped (on hands and knees).
- While maintaining your pelvic floor contraction **and** your lower abdominal contraction, swell your back muscles by squeezing them together.
- Imagine the muscles along your spine are your buttocks. Gently squeeze your "back buttocks" together.
- You can feel this contraction by wrapping your hands around your rib cage with your thumbs placed on either side of your spine.
- If you are having difficulty, you can lightly push your fingertips into your thighs to assist.
 - Avoid extending your back (leaning back), tilting pelvis, or holding your breath.



Step 4: Scapular Retraction

- Can be performed sitting, standing, supine and prone.
- Bring your ears over your shoulders into balanced posture.
- While maintaining your pelvic floor, lower abdominal and spinal contractions, squeeze your shoulder blades down and together.
 - Avoid holding your breath or shrugging your shoulders.



Purpose: Pain management techniques are aimed at reducing daily pain and inflammation and/or expedite recovery from a flare up or exacerbation.

Instructions:

1. If you are flared up, try not to panic, and practice pain management techniques as described below.
2. If flare-up pain is not improving over the course of a few days, consult your therapist or MD.
3. Practice Therapeutic Breathing Techniques (see additional handout).

Control Inflammation

The inflammatory response is the body's universal response to injury. After an injury, blood vessel pores will dilate and allow fluid (inflammation) to spill around the injured area. This inflammation, or swelling, has the ability to attack disease and clean up damaged tissue and create scar tissue. Although it has its good purpose, a prolonged inflammatory response can lead into a chronic pain cycle. Inflammation, therefore must be controlled.

- ✓ Avoid using heat. Heat increases inflammation by dilating blood vessel pores.
- ✓ Ice Pack the area for 15-20 minutes, up to once an hour. (4-5 times a day when flared-up), and make sure to ice morning and evening before bed.
- ✓ Anti-inflammatory medicine can be helpful if allowed by your MD

ICING DIRECTIONS

To avoid skin irritation and achieve maximal benefit from ice treatments, ice properly.

1. Apply the cold pack to the affected area using a towel layer over the skin.
2. Icing will create four progressive sensations: COLD — BURNING — TINGLING — NUMBING
3. Once reaching the numbing stage you will want to continue icing no more than 10 additional minutes. Use ice approximately **15-20 minutes per session**. You can apply several times per day, but leave the ice off at least twice as long as you had it on before using it again.

Maintain Range of Motion

During your recovery period it is important to maintain your mobility. Do not stay in bed if you can tolerate the upright position. Modify your activity so that you don't increase your pain levels.

- ✓ Try and go through your normal daily activities as tolerated using good body mechanics
- ✓ Do your stretching exercises gently (without increasing pain) 2-3 times per day, followed by icing.
- ✓ If you are unable to do your stretching exercises without increasing pain, then do the following:
 - For **LOW BACK PAIN**: do 5 repetitions of a pelvic tilt. Hold for 1-2 seconds. Make the tilt small enough that it does not increase pain.
 - For **NECK PAIN**: do 5 slow repetitions of neck rotation while lying down. Avoid pain at the end range.
- ✓ Progress back into your stretching routine as tolerated
- ✓ Avoid strength training and heavy activity until the flare-up is resolved. You may need to decrease the repetitions and/or weight when strengthening is resumed.
- ✓ A flare-up should be under control within three days. You might not feel 100%, but on the mend.

Use Proper & Protective Body Mechanics

- ✓ Bend at the hips, not at the spine; keep your spine in a balanced position.
- ✓ Maintain Deep Layer Core (DLC) muscle contraction during movements.
- ✓ Use pillows to support your neck, back and/or legs while sitting or lying down.
- ✓ Lean onto your arms for support while bending your hips if the pain is in your low back.
- ✓ Allow extra time, but try and do your daily needs. Wear slip on shoes, dress lying down on your back, and wear a back brace very temporarily if needed.

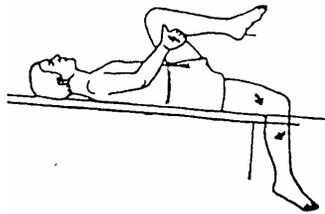
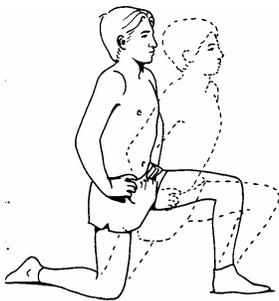


Physicians' Diagnostics
& REHABILITATION

Lumbar Spine & Related Hip Stretches

Purpose: Stretching exercises help to restore joint range of motion by lengthening shortened muscles and connective tissues, which help to reduce pain and tightness.

- Instructions:**
1. Perform highlighted stretches initially **1-2x/day**, or _____
 2. Hold each stretch **30 – 60 seconds** if tolerated for lengthening of muscles; repeat 2-3x each or _____
 3. Stretch to your **pain-free** end point, then breathe deeply through your belly and relax as you exhale. This will encourage maximal range in that stretch.
 4. It is best to stretch with a warmed up body, about the temperature that causes a light sweat.
 5. For pain reduction, it is best to stretch tight muscles at night just before going to bed.
 6. If it is not tight...**DON'T STRETCH IT!**
 7. When tight muscles are improved, you may decrease frequency to 2-3 times per week.



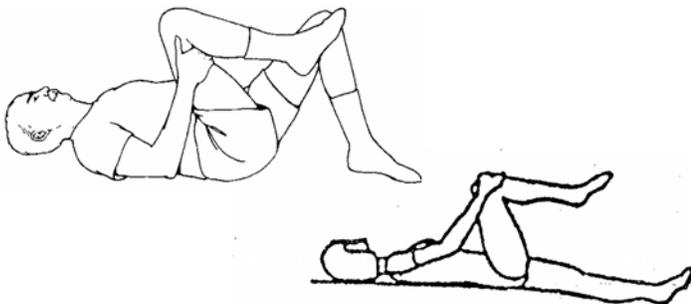
HIP FLEXOR STRETCH

Kneel with weight on one knee and the opposite foot. Tuck your hips under, squeeze buttocks, lean slightly forward and hold. Avoid arching your back. You should feel stretch to the front of the trunk or hip, not in your lower back.

MODIFICATION: Lay on back with buttocks at very edge of table and knees bent. Stabilize lower back by hugging both knees to chest, and then drop one leg down toward bed and hold.

TRUNK ROTATION

Lie on your back with your knees bent, feet flat on the floor. Slowly lower both bent knees to the floor. Return to center, and then lower to the other side. Hold, or gently rock side to side.



SINGLE KNEE TO CHEST

Lie on your back, knees bent and feet flat on floor. Bring one knee toward your chest pulling gently with your hands, hold, and alternate.

SIJ MODIFICATION: Extend one knee flat to the ground. Gently push the knee at your chest into your hands and count to five. Relax, and pull the knee up and slightly outward closer to your chest. Repeat this cycle 3-5 times on each leg.

DOUBLE KNEE TO CHEST

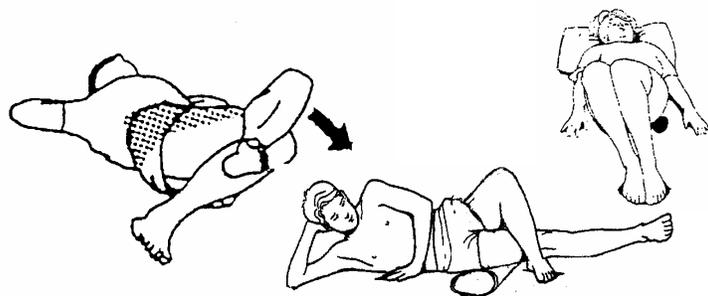
Lie on your back, knees bent and feet flat on floor. Bring both knees toward your chest pulling gently with your hands and hold.

Lumbar Spine & Related Hip Stretches



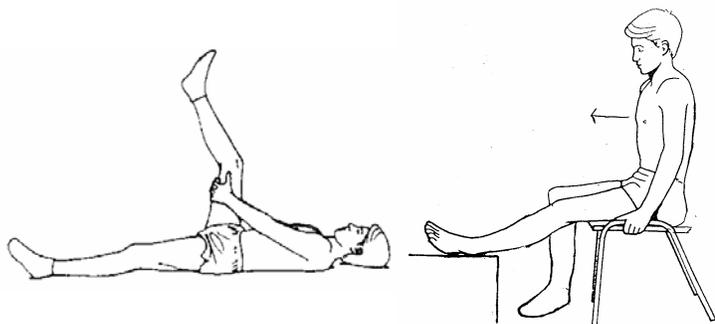
PIRIFORMIS STRETCH

Lie on you back with knees bent and feet on the floor. Cross right ankle onto left knee. Grasp left thigh and bring your left knee toward your chest and hold. Repeat on the other side.
MODIFICATION: May also be performed by pulling knee toward opposite shoulder or can be done in seated position.



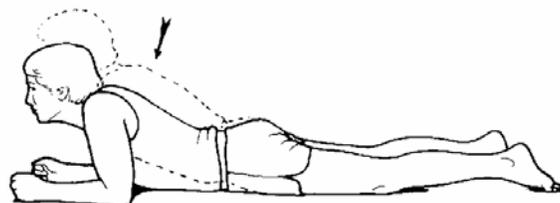
ITB / LATERAL HIP STRETCH

Lie on you back with knees bent and feet on the floor. Place left ankle over the outside of right knee and use left leg to push right leg toward the floor until a stretch is felt to the outside of the right hip. Hold, and repeat on other leg.
TRIGGER POINT RELEASE: Using a Foam Roller, tennis ball, or trigger ball, give gentle direct pressure to tight muscles and knots. Hold or gently massage areas 60-90 seconds each, once daily.



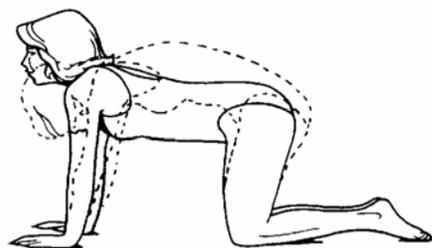
HAMSTRING STRETCH

Lying on your back, bend your hip and grasp your thigh just above your knee. Slowly straighten your knee with your foot in a relaxed position and hold. If able, flex your ankle several times. Modify by keeping other leg bent as needed.
MODIFICATION: May also be performed in standing or sitting with leg straight and elevated on a stool. With upright posture, bend forward at hips until stretch is felt.



PRONE ON ELBOWS

Lie on you stomach with your weight on your elbows and forearms. Keep your pelvis in contact with the floor. Allow your low back and buttocks to relax. Extend elbows and press up as able. Hold, or gently repeat movement several repetitions. Hold _____ x _____ Reps



CAT BACK

On hands and knees, slowly round pelvis and hips up towards ceiling to arch back like a cat. Drop pelvis and hips toward the floor. Avoid rocking forward and backward on knees. Hold each position, or gently repeat movement several repetitions.



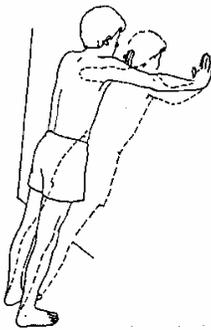
ROCK BACK WITH A "V"

On hands and knees, sit back on you heels and tuck your hips under. Stretch your arms straight in front of you until a stretch is felt in your mid to low back and hold.
QUADRATUS MODIFICATION: Shift weight diagonally over hip, and sidebend to the opposite side, elongating the side of the back and hold. Repeat to the other side.

Purpose: These exercises will strengthen the midback (between and underneath the shoulder blades) which will contribute to improved posture and decreased pain by decreasing strain on the spine.

- Instructions:**
1. Do only the exercises indicated and instructed by your therapist.
 2. **Maintain the DLC.**
 3. **Do not allow your shoulders to shrug up while doing the exercises.**
 4. Exercise 3x/week, not 2 days in a row, performing instructions from your therapist.
 5. Stop if pain symptoms significantly worsen and consult your therapist.
 6. Complete **20 slow repetitions** of each exercise or a maximum of **2 minutes** as indicated with good control.
 7. **Progress to the next level when able to complete 20 repetitions or 2 minutes without high fatigue.**

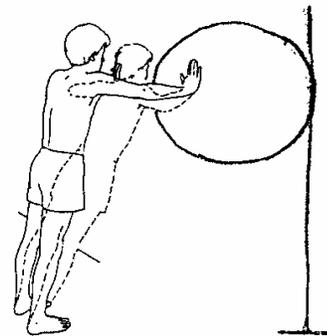
1. Straight Arm Push-ups: Maintain DLC



Level 1: Place your hands on the wall and feet away from the wall enough that you are leaning forward slightly. Keep elbows straight but **not locked**. By moving only the shoulder blades, allow your chest to move toward the wall, pause, and then push your chest as far away from the wall as you can.

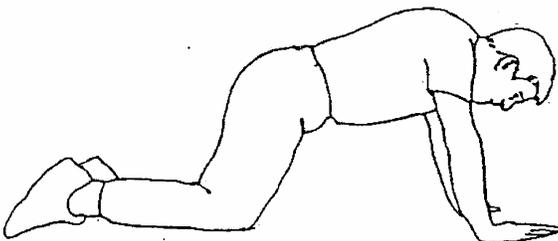
Do not allow shoulders to shrug up. 20 reps.

MODIFICATION: Keep your hands fistted and wrists neutral if you have wrist/thumb pain or carpal tunnel.

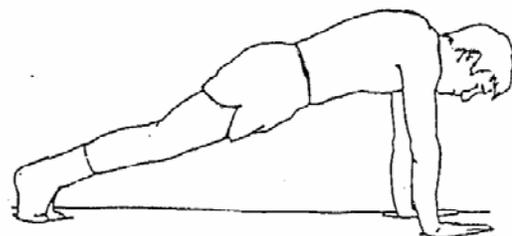


Level 2: Use Level 1 positioning but place hands on a Swiss ball against the wall at shoulder level. Keep elbows straight but **not locked**. By moving only the shoulder blades, allow your chest to move toward the wall, pause, and then push your chest as far away from the wall as you can. **Do not allow shoulders to shrug up.** 20 reps.

MODIFICATION: Hold your hands with palms flat on the sides of the ball so that wrists are neutral if you have wrist/thumb pain or carpal tunnel.



Level 3: Position yourself on your hands and knees. Keep your spine in a neutral position. Keep elbows straight but **not locked**. Allow your chest to move toward the floor, pause, and then push your chest as far away from the floor as you can. 20 reps.

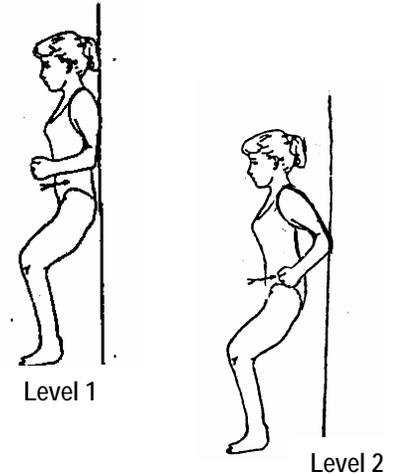


Level 4: Place your hands on the floor directly beneath your shoulders. Keep your spine in a neutral position. Keep elbows straight but **not locked**. Allow your chest to move toward the floor, pause, and then push your chest as far away from the floor as you can. 20 reps. **ADVANCE** by adding a full push-up with each rep.

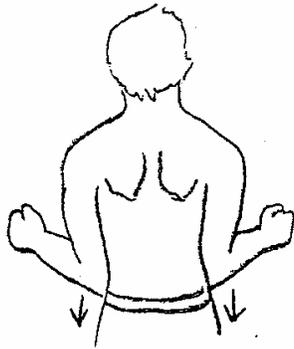
2. Reverse Wall Push-ups: Maintain DLC

Level 1: Stand with your head and back against the wall and your feet 8-12 inches away from the wall (or further away for more challenge) and your knees slightly bent. You should be leaning back slightly into the wall. Hold your arms at your sides with your elbows bent to 90 degrees. Push your elbows into the wall. Your elbows should not slide on the wall. Hold for 10 seconds. 6-12 reps.

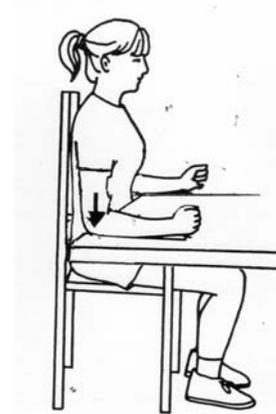
Level 2: Begin in the same position, now push your body forward by pushing your elbows into the wall. Your hips should be in line with your shoulders. Your elbows should not slide on the wall. Hold yourself away from the wall for 10 seconds. 6-12 reps.



3. Scapular Depression: Maintain DLC



Level 1: Sit or stand (one foot forward if standing) with good posture. Bend your elbows to 90 degrees and push your elbows straight down toward the floor. Hold for 10 seconds. 6-12 reps.



Level 2: Sit with your forearms on a table in front of you. Squeeze shoulder blades down and push your arms into the table as if attempting to lift your body. Hold for 10 seconds. 6-12 reps.

4. Postural Exercises: Maintain DLC



Exercise A

- Stand against the wall with feet 6"-8" away from wall.
- Keep elbows straight and arms/hands against the wall.
- Maintaining a slight backward pressure against the wall, slowly raise arms out the side until reaching the positions of 10 o'clock and 2 o'clock
- STOP raising your arms if you cannot keep your shoulders from shrugging, and complete in a shorter motion.
- Repeat 12-20 reps.



Exercise B

- Stand against the wall as in exercise A
- Press head, back, and hips against the wall
- Place arms/hands against the wall at shoulder level, and avoid shoulder shrugging.
- Keep contact with the wall, by maintaining a slight backward pressure with your arms, as you bend your elbows to 90 degrees then straighten.
- Repeat 12- 20 reps.

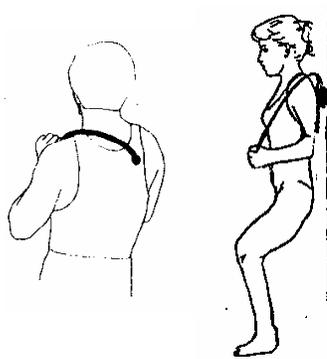
Pain Management – Muscle Release Techniques

Trigger Point Release: Trigger point release or self-massage techniques help with daily pain management by increasing circulation and blood flow that aids in the healing process, and breaking scar tissue adhesions that develop as part of the secondary pain cycle.

- Instructions:**
1. Use a tennis ball, trigger ball, or massage tool to gently provide light pressure to a tight muscle.
 2. Work into a pressure that feels strong, but does not create intense pain.
 3. Hold pressures 30-90 seconds, or gently move across the point in a massaging motion.
 4. Combine self release with stretching techniques for best results.



Suboccipital Release using two tennis balls in a sock



Theracane or tennis ball against the wall for knots in shoulder blades

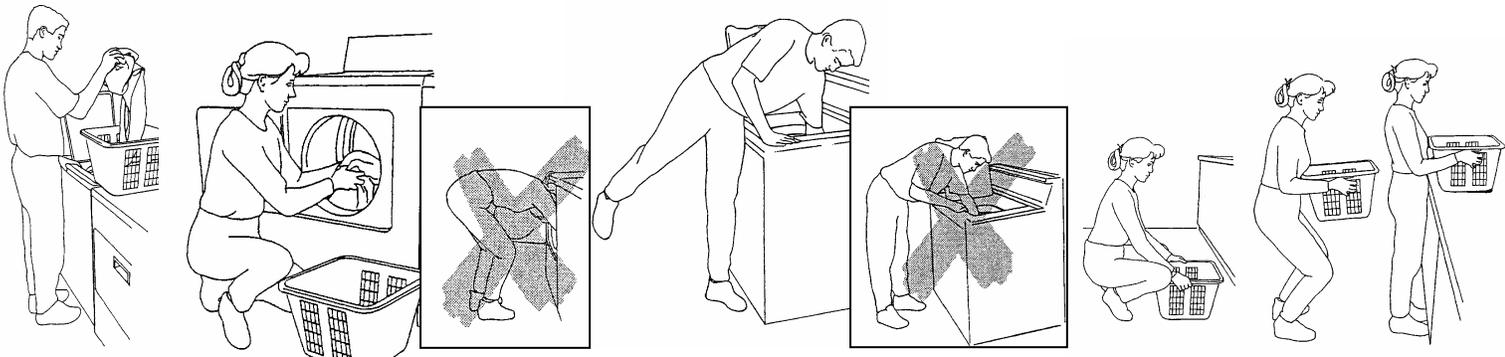


Piriformis and gluteal release using tennis or trigger ball under buttock



ITB release using foam roller

Power Position

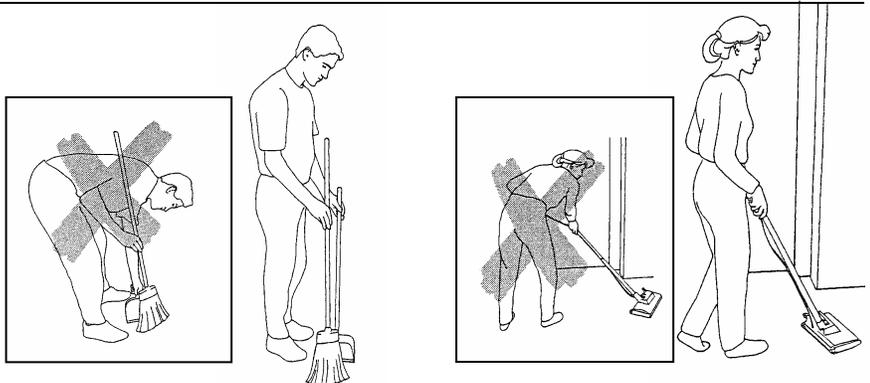


Laundry

- Keep basket at waist height when sorting laundry
- Squat or half kneel to get clothes in and out of front loading washer or dryer, avoid bending at waist
- Use golfer's lift to get clothes out of top loading washer
- Use squat or power position to lift laundry basket from floor.

Sweeping and Vacuuming

- Use long handle equipment to avoid stooping
- Keep broom or vacuum close to your body
- Stay upright, step or lunge with your legs to push the vacuum
- Avoid bending at the waist or reaching with your arm
- Pivot with your feet, don't twist your trunk



Functional Sitting Positions

Forward ready position: perch on the edge of the chair, lean into desk while maintaining low back arch and avoid rounding shoulders forward. This position works especially well for writing.

Upright functional ready position: the typical upright posture with the back supported or, if the seat is tilted, sitting for short periods of time without using the backrest to work on postural endurance.

Semi-reclining position: use if the chair has a reclining feature. This position may work best while talking on the phone if there is little or no need to write.

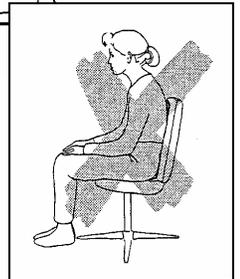
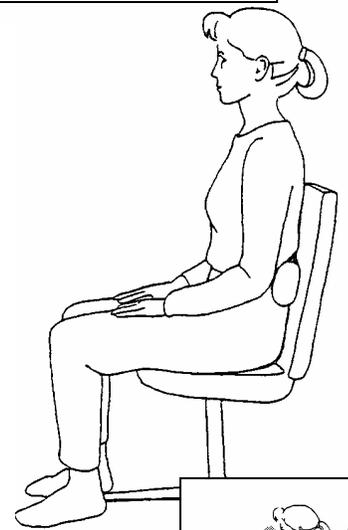
Standing: Rest one hand on the desk and bend at hips if needing to write.

Lumbar Support Cushion

- A lumbar roll, small pillow or towel roll can be used
- Sit all the way to the back of the seat and place the support in the small of the back.
- The support should maintain the natural curve of the back
- More support may be necessary on a softer chair

Stress Wedge Cushion

- Place the stress wedge at the back of the seat with the thickest part to the back
- Sit all the way to the back of the seat on the wedge
- The stress wedge will tilt the pelvis to help maintain the natural curve of the back
- The stress wedge can be used alone or with the lumbar support



Computer Ergonomics

Balanced Posture Alignment

- ✓ Ears and shoulders in line with hips

Height Adjustment

- ✓ Feet flat on floor, or use a foot stool
- ✓ Keep thighs parallel to floor, create 90-110 degree hip angle
- ✓ Ensure leg clearance from desk or keyboard tray

Lower Back Support

- ✓ Adjust lumbar support to maintain an erect sitting posture
- ✓ Add lumbar support if needed

Seat Pan

- ✓ Depth of seat should allow two finger widths behind knee
- ✓ Tilt at 30 degree angle, or add stress wedge

Neutral Typing Position

- ✓ Use an adjustable chair, keyboard tray, or desk/table to achieve the "neutral position" of a straight hand, wrist and forearm
- ✓ Arm rests ½ inch above elbows and ½ inch below the desk
- ✓ Keep upper and lower arms at a 90 degree angle
- ✓ Position mouse close to keyboard to minimize reaching and twisting

Viewing Angles and Distance

- ✓ Position monitor, keyboard and chair in a straight line
- ✓ Top of monitor screen at or slightly below eye horizon
- ✓ Comfortable distance to read monitor (typically 15-30 inches)
- ✓ Adjust brightness, contrast and color to comfortable levels
- ✓ Avoid glare by positioning away from windows and direct lights
- ✓ Keep written work materials propped up near monitor screen on a document holder to avoid repetitive neck movement

Monitor Height & Distance



Lumbar Support

Seat Pan

Height Adjustment

Laptops

- Place on an elevated surface
- Add an external monitor, keyboard, and mouse
- Use a port replicator or docking station
- Keep wrists neutral
- Rest forearms or elbows on work surface to avoid strain
- Avoid using on couch or recliner

Purpose: To increase awareness of breathing and breathing patterns, promote relaxation, stress reduction, increased efficiency in stretching, and better body awareness. Being aware of your breath helps you to actively collaborate in your therapy.

Instructions:

- 1) Follow the steps as indicated by your therapist.
- 2) Perform steps daily, at least 3 to 4 times
- 3) Devise a visual reminder as a prompt to remind you to breathe deeply

Step One:

- Close your eyes if it feels comfortable.
- Be aware of your breathing.
- Do not try to control your breathing.
- Just let it happen and bring your awareness to the breathe in and out.
- As thoughts come ,simply let them go and bring your attention back to your breath

Step two :

- Lie down or relax in a chair
- Close your eyes if it feels comfortable
- Put one hand over your belly
- Bring attention to your hand and feel it move as your breath flows in and out
- Do not force any movement, just breathe
- If your mind starts to wonder, simply re-focus your attention on your breath

Step three:

- Tune into your breathing at different times in the day, especially when experiencing increased pain
- Feel your belly go through one or two risings and fallings
- Breathe deeply and evenly when your prompts remind you

Step four:

- As you go through your stretches, stretch to your pain-free end point, then breathe deeply through your belly and relax as you exhale. Focus on breathing in through your nose, and out through your mouth. This will encourage maximal range in that stretch.