

The DonTigny Dynamic Core Stabilization Program

For low back and pelvic pain

Developed by Richard L. DonTigny, PT

Purpose: A program for the immediate relief and prevention of occurrence of common low back pain, with special emphasis on the sacroiliac joint.

For use by medical professionals to provide instructions for the home care of patients with low back and pelvic pain.

This program is divided into eight parts:

1. Assisted corrections
 - a. Traction corrections
 - b. Direct corrections
2. Self-Corrections
 - a. Traction corrections
 - b. Direct corrections
 - c. Isometric corrections
3. Stretching exercises
4. Strengthening exercises
5. Sit to standing exercise
6. Standing hip flexion and hip abduction exercise
7. Flexibility and strength training for neck and upper back
8. Fascial release through PNF patterns

Two things are absolutely essential for the relief of low back pain.

1. For the relief of pain, correction of the sacroiliac joint to the position of ligamentous balance.
2. For the prevention of onset or recurrence, when you are leaning forward to lift, bend, or lower, or if you are pregnant hold a strong active pull upwards on the front of the pelvis with your abdominal muscles. Hold a strong posterior pelvic tilt.

CAUTION: Do not attempt corrections if your SIJ has been fixated or fused.

If you have numbness or weakness or loss of bowel or bladder control see your physician before continuing.

You may not be able to get a correction if you have had proliferant injections into the iliolumbar ligament or if you have a spondylolisthesis.

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Getting Started

In the absence of a DonTigny trained professional you may have to continue on your own.

Begin with the self-traction corrections

Do corrections on both sides, several times on each side, alternate sides each time - right, left, right, left, etc. and repeat corrections every 2-3 hours all day long for at least a day.

Remember to lift your head and hold your abdominal muscles tight when you lift your leg, when you do the corrections and when you lower your leg. If you do not do them when you lower your leg, the weight of your leg may cause your SIJ to go out again.

On the second day, do the direct corrections, sitting, standing or lying on your back.

Do them on both sides, several times on each side, alternate sides each time - right, left, right, left, etc. and repeat them every 2-3 hours all day long for at least a day. **In the afternoon alternate direct corrections with flank stretches on each side.**

Remember to lift your head and hold your abdominal muscles tight when you lift your leg, when you do the corrections and when you lower your leg. If you do not do them when you lower your leg, the weight of your leg may cause your SIJ to go out again.

On the third day, do the strong muscle energy corrections.

Do them on both sides, several times on each side, alternate sides each time - right, left, right, left, etc. and repeat them every 2-3 hours all day long for at least a day.

Remember to lift your head and hold your abdominal muscles tight when you lift your leg, when you do the corrections and when you lower your leg. If you do not do them when you lower your leg, the weight of your leg may cause your SIJ to go out again.

After three days, correct whenever you feel your back go out even a little bit. If you are still sore after three days then alternate between a flank stretch on each side and strong muscle energy corrections.

As long as your back continues to improve, this may be all that you will have to do.

If you must keep correcting after 30 days, a sacroiliac belt, an elastic lumbosacral support or prolo may be necessary. See page 19 for the use of a support belt.

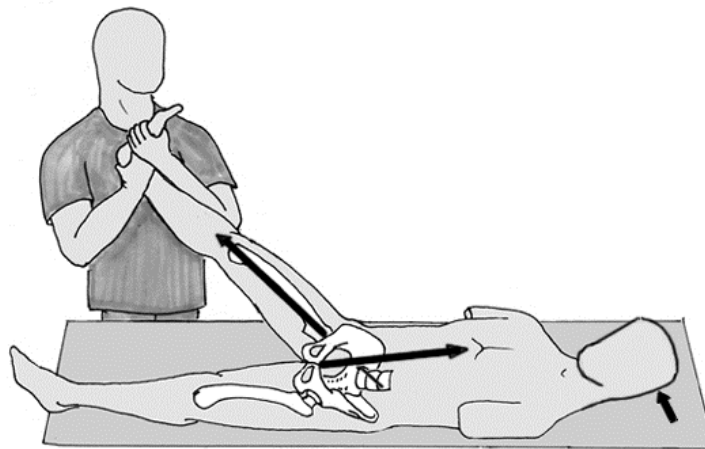
Prolo is the injection of a chemical irritant into weakened ligaments to strengthen them. See www.getprolo.com

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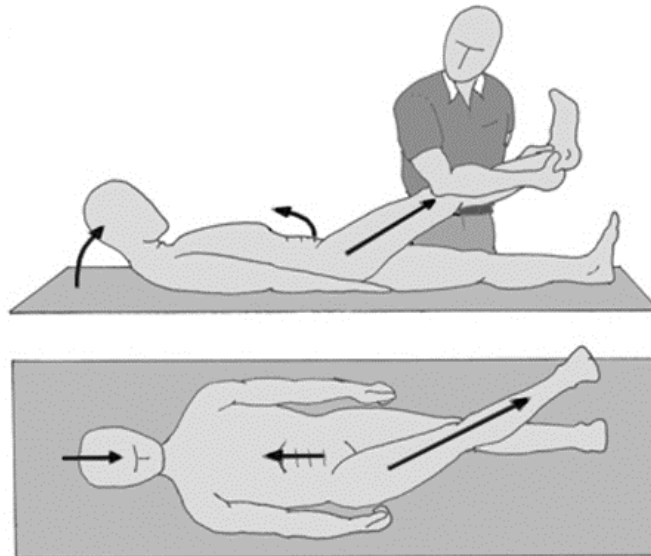
For low back and pelvic pain

Assisted corrections Traction

With the patient supine, lift the leg gently to about 45° of PSLR and apply traction sufficient to lift the buttock on that side. Patient is instructed to **tighten the abdominal muscles** and to lift the head to reinforce the correction. Repeat on the other side. Repeat 2-3 times on each side, alternating sides each time. Anyone in the household may be instructed in assisting with this procedure at home.



If the patient has been treated improperly in the traditional side-lying position, it may be necessary to apply traction with a flank stretch at the same time. Follow-up with strong muscle energy corrections.



Notes

Caution: If any of these exercises cause or increase your pain level on one side, first begin on the other side and if the exercise increases pain on that side also stop and consult with your caregiver. (c) 2009 Richard L. DonTigny, PT

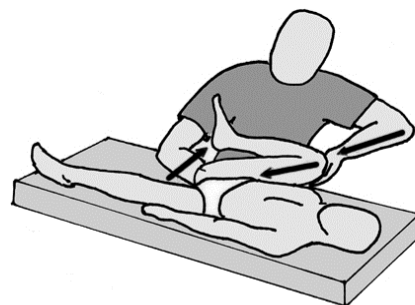
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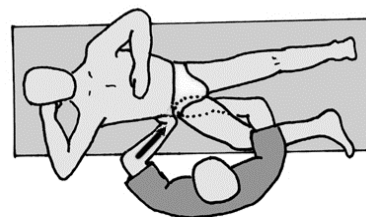
Assisted corrections

Direct corrections

Stretch the knee along side of the chest, beneath the axilla, while lifting with one hand under the ischial tuberosity and pushing caudad on the shaft of the femur.

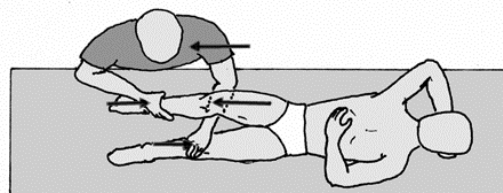
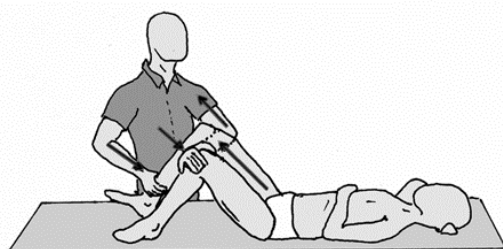


Or place one hand under the ischial tuberosity and the other as far back as possible on the back part of the iliac crest and rotate the pelvis firmly posteriorly.



The EZ Fix

Place one forearm under the proximal knee with the hand on the front of the contralateral knee. Place the other hand on the foot with just enough pressure to keep the foot from rising. Put traction on the proximal pelvis by just leaning the trunk backwards. Repeat on the other side.



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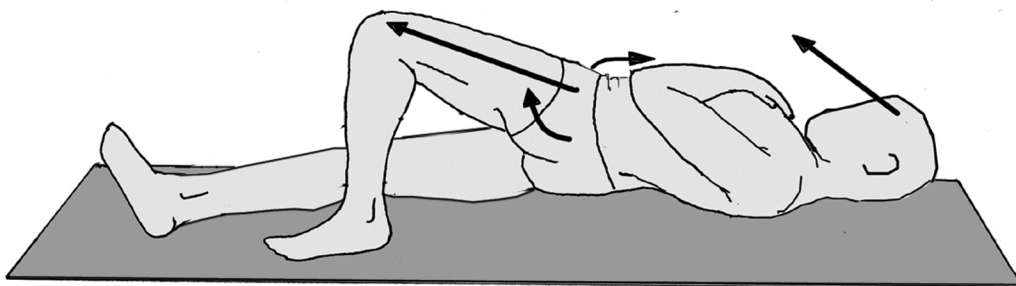
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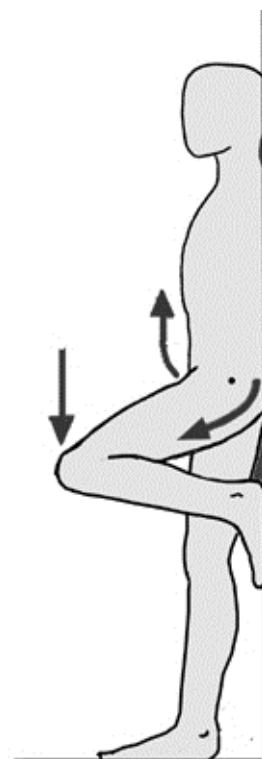
Self-traction corrections

Lie supine. In order to pull the back of the pelvis down, with the foot flat push the knee out until the buttock rises on that side.

At the same time to bring the pelvis up in the front raise your head and **tighten your abdominal muscles.**



This correction can also be done while standing against a wall. **Be sure you hold strong support on the front of your pelvis with tight abdominal muscles when lifting and lowering your leg;** otherwise the weight of your leg will cause the pelvis to rotate forward and downward again.



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Direct Corrections

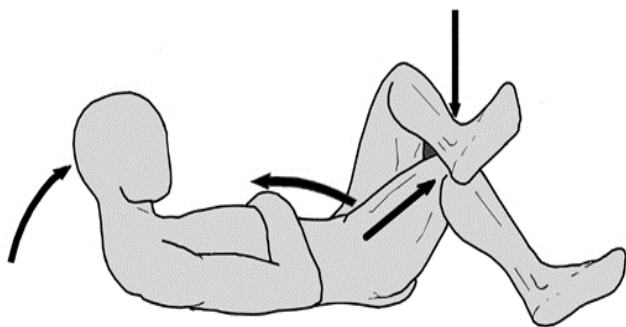
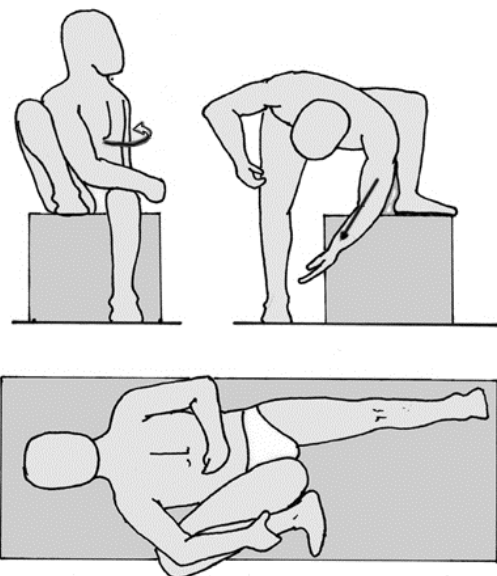
It is not necessary to lie down to do corrections. Corrections can be done at nearly any time depending on what position you are in at the time.

If you are sitting, simply put one foot up on the chair next to you and bring the shoulder on that side forward just ahead of that knee. Repeat on the other side.

Do each side 4-5 times alternating sides each time.

If you are standing, put one foot up on a stool or chair seat and reach the arm down toward that foot. Repeat as above.

When you are lying supine bring one knee up along side of your chest, put your elbow on your knee and grasp your leg. Pull that knee in and back toward the bed. Repeat as above



Flank stretch: To stretch the tensor fascia lata and help restore function to the sacroiliac joint.

Action: Lying supine, **lift the head to tighten the abdominal muscles**, put your left heel on top of the right knee and stretch the right knee down and to the left. Repeat on the other side.

This is especially helpful if you have had a number of traditional manipulations and your SIJ is very tight.

Notes

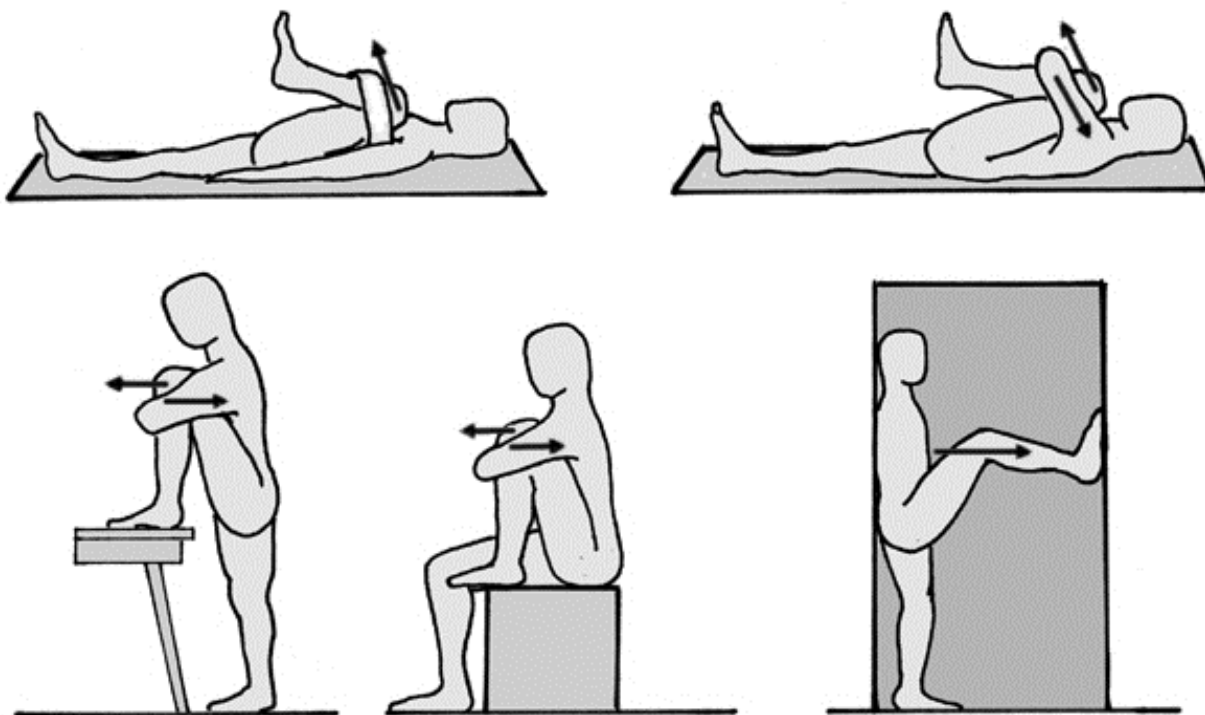
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Isometric or muscle energy corrections

In whatever position you happen to be, hold your knee tightly to your chest with both arms and then push your knee out against your arms. Do both sides, several times on each side, alternating sides each time.



A luggage belt placed behind the upper back to in front of the knee provides excellent resistance as does standing in a doorway.

Lock your arms around your knee to hold it. Do not try to hold it with clasped hands.

Push hard and hold for 6-8 seconds. **Hold your abdominal muscles tight** while lifting and lowering your leg. Breathe out through pursed lips while holding.

Repeat on the other side. Do several times on each side and alternate sides each time.

Notes: Never push or pull or squeeze so much that you cause any pain.

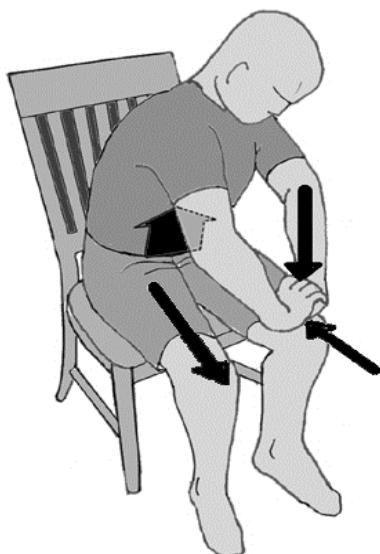
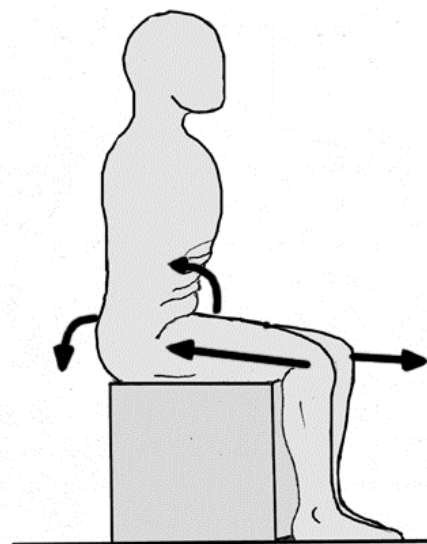
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Seated corrections

To correct while sitting at home, or in a car
Action: Sitting, pull the right thigh back and push your left thigh forward **firmly while tightening your abdominal muscles** and pinching your buttocks together. Hold 5-6 seconds.
Repeat on the other side. Do each side several times alternating sides each time.



Enhanced seated correction:

Action: Seated, pull the left thigh back and push your right thigh forward. Put both hands on the left knee, **tighten your abdominal muscles**, pinch your buttocks together and push down hard on the left knee. Hold for six seconds. Repeat on the other side.
Do each side 4-6 times, alternating sides each time.

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Posture practice

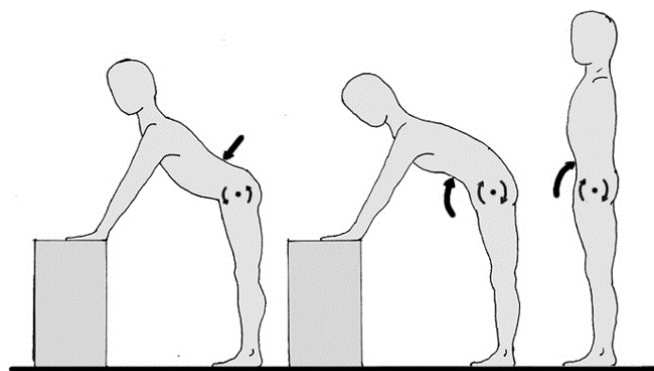
Poor posture: Head is forward, off balance, causes tightness in the neck muscles, flattens the chest, decreases ability to breathe deeply. Pelvis rotates anteriorly and downward. Hip flexors are impaired. The knees are curved backward. When walking, instead of bring the foot forward with the hip flexors, the individual externally rotates the leg and brings it forward with the hip adductors. On heel strike the knee is driven medially causing a valgus knee. Instead of decelerating over the big toe, you decelerate over the inside edge of the big toe driving it laterally and causing bunions.



Optimum posture: Head is erect and balanced on the neck. Breathing is deeper and easier. The pelvis rotates posteriorly and upward. Knee is no longer curved backward. Normal deceleration occurs over the feet.



Posture practice: To practice erect posture. Action: Standing, bend forward from the waist and put both hands on a table or counter. **Tighten the abdominal muscles to lift the front of your pelvis** and round your low back. Straighten up your body while holding the abdominal muscle tight. Keep your chin tucked in and your weight behind the hip joints.



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For low back and pelvic pain

Stretching exercises

Do your corrections before and after stretching.

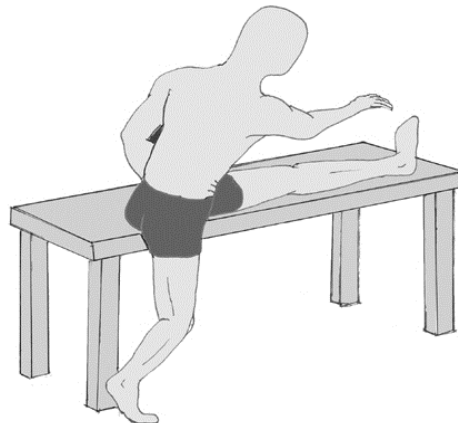
Hamstring stretch

Sit on the edge of a table or a bed with one leg outstretched as shown.

Action: Flex your trunk down toward the leg slowly for several seconds. Keep your knee straight.

Repeat on the other side.

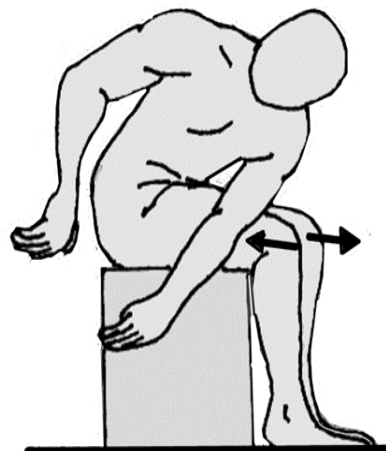
Repeat daily until you can nearly touch your head to your knee.



Rotation stretch. **To safely stretch the abdominal oblique muscles, the latissimus dorsi, the sacral origin of the gluteus maximus, the multifidus, the quadratus lumborum, the piriformis and others.**

Action: Seated, pull your right thigh back and push your left thigh forward. Flex your trunk and twist it to the right as far as possible. Repeat on the other side.

Stretch both directions.



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For low back and pelvic pain

Strengthening exercises

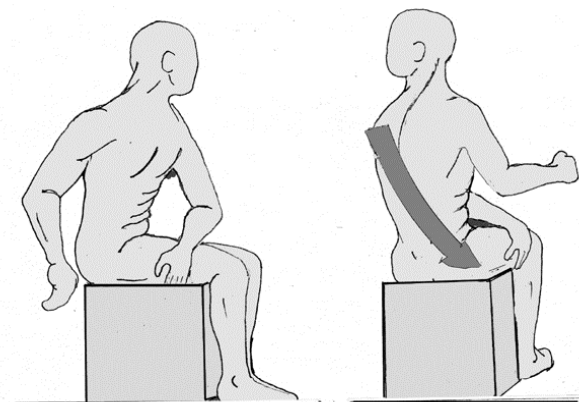
Do your corrections before and after strengthening exercises.

Isometric rotation exercise is to build strength in the abdominal oblique muscles, the latissimus dorsi, and the sacral origin of the gluteus maximus, the multifidus, the quadratus lumborum, the piriformis and others.

Seated, with the left hand grasp the right leg on the outside just below the right knee.

Action: Rotate your trunk toward the left, thrust your right thigh forward and draw your left thigh back, giving yourself resistance with your left hand. Hold for 10 seconds.

Repeat on the other side.



Crunches build strong abdominal muscles that are critical to this program.

Lie supine and just lift your head as high as possible. Repeat 25 times.

When you can do this without effort lift your head and shoulders and reach your hands out over your knees. Work up to 25 repetitions



Do no single or double straight leg raising unless you can hold an exceptionally strong pull on the pelvis with the abdominal muscles.

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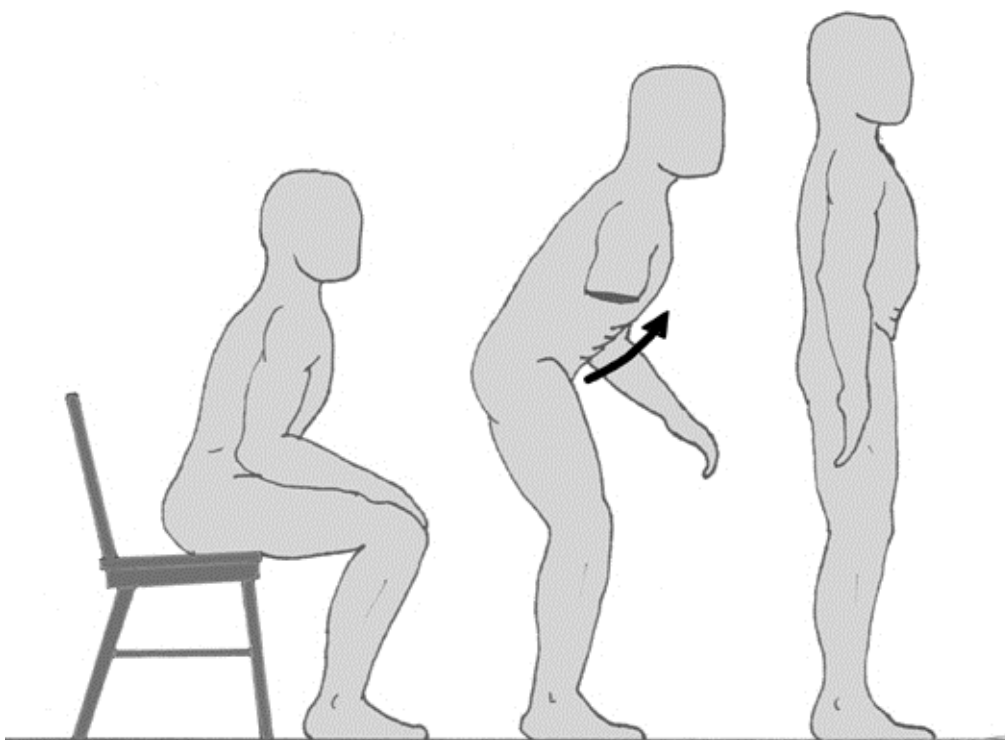
For low back and pelvic pain

Sitting to Standing

Rising from sitting can be difficult and painful.

To rise without pain, first, scoot to the front part of the chair. Lean forward. Place your hands on your knees.

As you stand, **tighten your abdominal muscles** to bring up the front of your pelvis. If you try to stand without bringing up the front of your pelvis you will stress the sacroiliac joints



To increase strength

Stand and sit slowly several times and repeat during the day to increase standing ability

Notes

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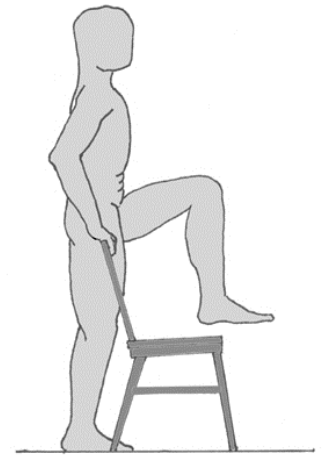
For low back and pelvic pain

Standing hip flexion

Standing hip flexion: This is an essential exercise so that you will be able to go up and down steps without back pain.

Action: Standing with one hand on a chair or table for balance, **tighten your abdominal muscles** to hold up the front of your pelvis and then lift one knee as high as you are able.

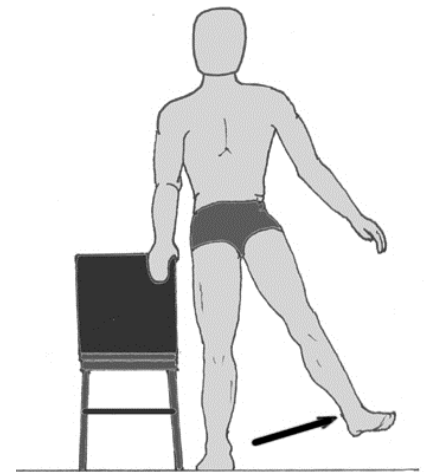
Repeat on the other side. Repeat 10 times on each side.



Standing hip abduction

Hip abduction provides necessary stabilization when walking.

Action: Standing with one hand on a chair or counter, **tighten your abdominal muscles** to lift the front of your pelvis and then raise one leg up and out to the side. Hold for 5-6 seconds and repeat five times. Repeat on the other side.



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Stretches for low back, upper back and neck

THE ALL -IN-ONE EXERCISE

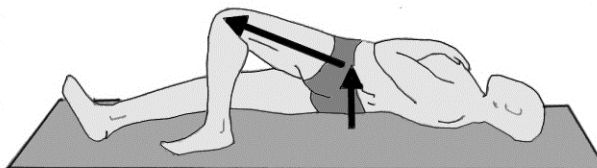
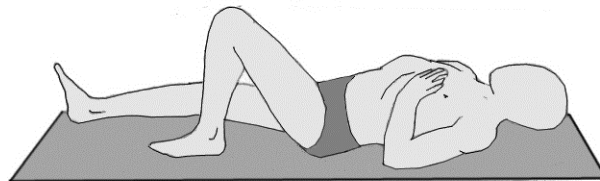
This is a very good method to stretch and strengthen a dorsal kyphosis (round upper back) and a forward head posture. It will help you to stand much straighter. This should be done under professional supervision at first.

Begin easy and stretch slowly.

Hold stretch for 10-20 seconds.

Repeat daily until you can hold an erect posture.

To mobilize the SIJs, the neck and upper back.
Begin with the hip and knee bent and the foot flat.



Push your knee toward your foot, raising your buttock on the same side. Lower back down and repeat 3-5 times.(Continue on next page)

Notes _____

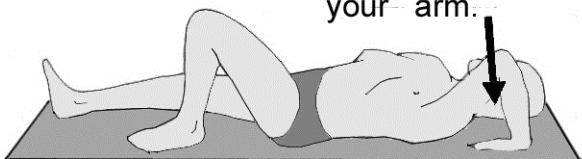
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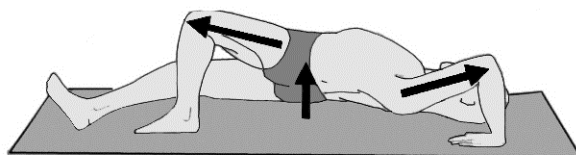
Stretches for low back, upper back and neck

ALL-IN-ONE EXERCISE (2)

Note the hole under
your arm.



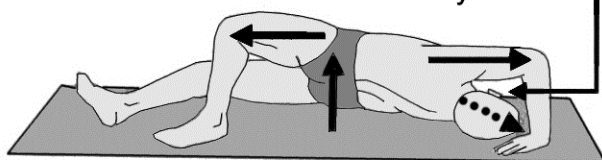
Now flex your shoulder and elbow and place your hand along side of your head with the fingers pointing down.



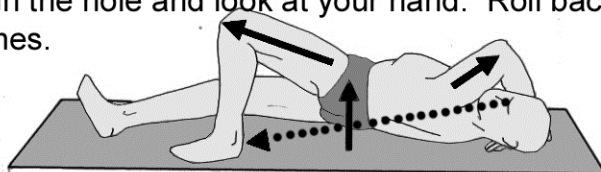
Push your knee toward your foot and your elbow toward the top of the table raising your buttock and arching your back. Roll back. Repeat 3-5 times.

ALL-IN-ONE EXERCISE (3)

Again, note the hole under
your arm.



Push with your knee and elbow and put the back of your head through the hole and look at your hand. Roll back. Repeat 3-5 times.



Push with your knee and your elbow and put the front of your head through the hole and look down at your foot. Roll back. Repeat 3-5 times. Do to both sides.

Notes _____

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Fascial release through PNF patterns

Fascial tightness.

Stretching through PNF patterns.

Fascial tightness may be present in the buttocks and
Internal and external rotation of the hip.

This may give a false positive Patrick's test.

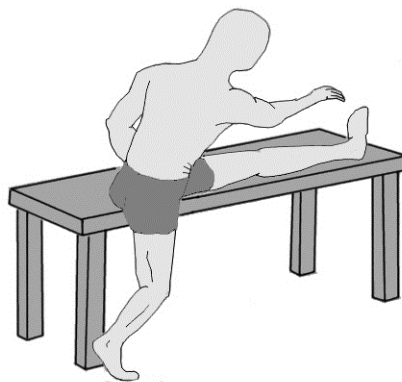
This motion can be regained with gentle stretching.

Especially effective are contract/relax stretching
techniques in the lower extremity primitive motion
patterns used in proprioceptive neuromuscular
facilitation.

Be sure you do a corrective exercise before and
after these exercises.

Stretching Fascia (1)

The Outer Hamstrings



Sit with one leg straight out on a table or bed. Twist
bend and reach to touch the table on the far side of the
outstretched leg. Stretch for 1-2 minutes. Repeat on
the other side.

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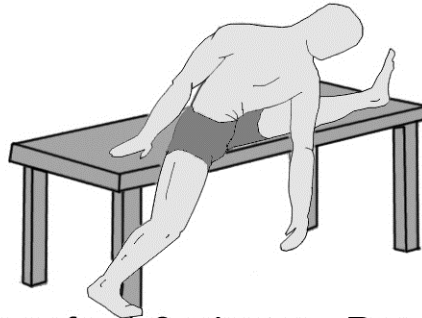
Fascial release through PNF patterns

STRETCHING FASCIA (2)

The inner hamstrings

Sit with one leg straight out on a table or bed.

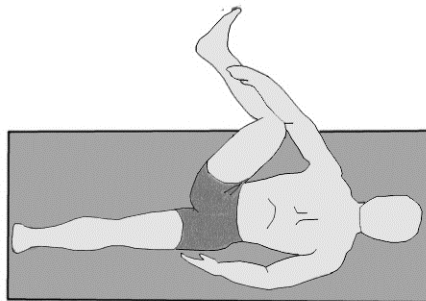
Twist, bend and reach down toward the floor just on the inside of the outstretched leg.



Stretch easy for 1-2 minutes. Repeat on the other leg.

STRETCHING FASCIA (3)

For the hip extensors, adductors and external rotators



Lie on your back on a bed or table and bring your leg up and out to the side as indicated.

Stretch easy for 1-2 minutes. Repeat on the other leg.

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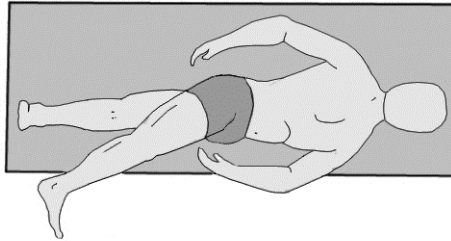
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Fascial release through PNF patterns

STRETCHING FASCIA (4)

Hip abductors, internal rotators, quadratus lumborum

Lie on your back on a bed or a table



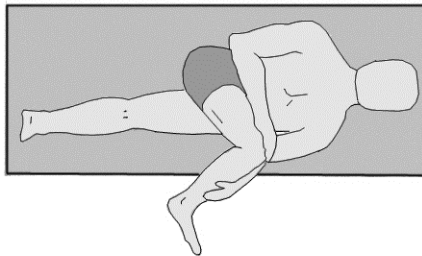
Swing the right leg over your left, twisting your lower trunk.

Let stretch for 1-2 minutes. Repeat on the other side.

STRETCHING FASCIA (5)

Hip extensors, abductors, internal rotators

Lie on your back on a bed or a table



Bring your leg up and across your body as indicated. Stretch and externally rotate your thigh for 1-2 minutes. Repeat on the other side.

Notes _____

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SUPPORTS

- ❖ A sacroiliac belt can be helpful to maintain ligamentous balance, but must be put on when lying supine after making a correction to the balanced position. A wide luggage belt, available in the luggage department at most Marts for about five dollars, can be adjusted or cut off to fit and works very well.
- ❖ Put on with the patient supine after correction is achieved, the bottom of the support is just above the trochanters and the support is fastened snugly.
- ❖ If the support is put on when the joint is subluxed, it will increase the pain by holding the joint in the subluxed position.
- ❖ I recommend a lumbosacral support if you have a protruding abdomen or are in the later stages of pregnancy.
- ❖ I prefer an elastic lumbosacral support about 4-6 inches wide, with a velcro closure, two lateral support straps and a lumbar pad.
- ❖ The secondary straps are then stretched toward the symphysis so they provide a mild lift in posterior rotation.
- ❖ The support now helps to maintain the balanced position, has a mild corrective force in posterior rotation and is wide enough to help stabilize L4,5-S1, which is destabilized with the subluxation.

TO DECREASE PAIN AT NIGHT WHEN SLEEPING

- ❖ When you first go to bed, do your corrective exercises to put the joints in a good position for the night.
- ❖ The pelvis is not stable when unloaded and supine.
- ❖ To stabilize your pelvis when you are sleeping, sleep in an elastic garment such as Spandex or Lycra bike shorts or a panty girdle.
- ❖ Sleep in silk or acetate pajamas so that you don't have to fight the covers.
- ❖ If you sleep on your back put a pillow up under your upper thighs.
- ❖ If you sleep on your side, pull your knees up and put a pillow between them.
- ❖ Try to avoid sleeping on your stomach unless you draw one knee up along one side of you.

TO DECREASE PAIN WHEN SITTING

Use a standard garden kneeling pad and sit with it under your thighs, back to but not underneath your 'sitting bones'.