

Muscle energy techniques, as outlined in previous chapters, provide us with an excellent series of methods for relaxation and stretching of specific tight, shortened, contracted and painful muscles. In addition to this, as muscles relating to particular joints are loosened, the joints themselves become more mobile and improve in their ability to function normally.

Anyone who has attended yoga classes will recognize certain similarities between the concepts of some MET procedures and the methods used by yoga teachers when helping people to get into the various postures. Once you have adopted a particular yoga position (*asana*) you are asked to breathe slowly and deeply and to maintain the posture for a minute or two. In some instances, holding your breath is encouraged as part of the process. After a minute or two, you are asked to take a deep breath, release it and, as you exhale, to try to move further into the particular pose.

Now that you have looked at MET methods, you will recognize that by getting into a pain-free posture, for example sitting with legs outstretched, trying to reach your toes with your finger tips, then holding that position for a while, you are in fact creating an isometric contraction. The effort to move in the chosen direction is matched by a counterpressure of resistance from your own tight muscles.

The breathing pattern used in yoga helps the process because it allows for better relaxation. Indeed, if we were looking for a method for *general* stretching and mobilization (rather than the specific focus of the stretches outlined in Chapter 3), we would need to look no further than yoga.

It is not difficult to devise a series of exercises or postures in which general mobilization of regions of the body can be achieved, using these same principles. For example, athletes use a variety of stretching techniques in order to prepare themselves for strenuous activity.

The methods outlined in this chapter can be used selectively, for particular regions of the body, or comprehensively, to loosen most of the body, as desired. A few of the methods outlined are specific self-mobilization exercises which do not involve muscle energy mechanisms as discussed in Chapter 1, but rather utilize more direct release of tight structures.

**CAUTION** Care should be used in all of these exercises not to involve force. The essence of self-treatment methods is that they should be safe and gentle. If any pain is ever associated with the preparation for or the carrying out of any of the various flexibility exercises described, then too much effort is being used or the guidelines are not being followed accurately. Never do anything in self-treatment which causes more than transient, mild discomfort. In short, pain indicates a clear message to stop.

It is suggested that those procedures which are found to be successful should be repeated at least several times per week, and ideally every other day, to help regain and maintain suppleness.

### Can you be too flexible?

Mobility and flexibility are two of the main features we all want for our joints and for our bodies as a whole. But it is possible to be too flexible, to be actually hypermobile. Sometimes hypermobility is the result of a genetic characteristic and sometimes individual joints can become hypermobile due to injury. This can happen to key joints, such as the sacroiliac, where repetitive injury (sometimes through excessive manipulation of the joint) leads to chronic pelvic and back problems.

Even if hypermobility is not a factor in someone's make-up, it is possible for muscle tone to be so poor that the associated joints, those that should be supported by particular muscles, become unstable, even when ligamentous tone is reasonably normal.

This instability can be seen in the neck when we look at the round-shouldered, forward head, chin-poked posture of the person with an upper crossed syndrome (see Fig. 2.2 in Chapter 2), with its weak neck flexor muscles and tight postural (type 1) muscles.

It is also possible to see the instability pattern in the lower crossed syndrome (Fig. 2.1 in Chapter 2), with its weak abdominal muscles and short, tight (and possibly also weak) low back muscles.

In such instances the spine is simply not being supported and when it is asked to perform a task (lifting, bending, etc.) that demands more than the current level of stability can manage, an acute low back problem is a very real possible consequence.

So flexibility and stability need to be balanced with each other.

One of the major elements of the next chapter (Chapter 6) is a series of well-established exercises that will allow the recovery and maintenance of stability of the core muscles of the body that were designed specifically to perform these roles. In this chapter, the objective is to create a greater degree of suppleness and general flexibility that builds on the release of tight muscles described in Chapter 3 and the release of trigger points described in Chapter 4 and which complements the core stability that will be described in Chapter 6.

### Variations on a theme of self-mobilization

Osteopathic and other physicians, practitioners and therapists have, over the years, devised different methods for guiding their patients in self-mobilization. In this chapter, a variety of these are presented. No indication can be given as to which will suit one person more than another. Try them all to see which feels more comfortable for you, which achieves greatest release of your particular tensions and tightness patterns, and then incorporate these into a regular pattern, ideally to be used at least every other day.

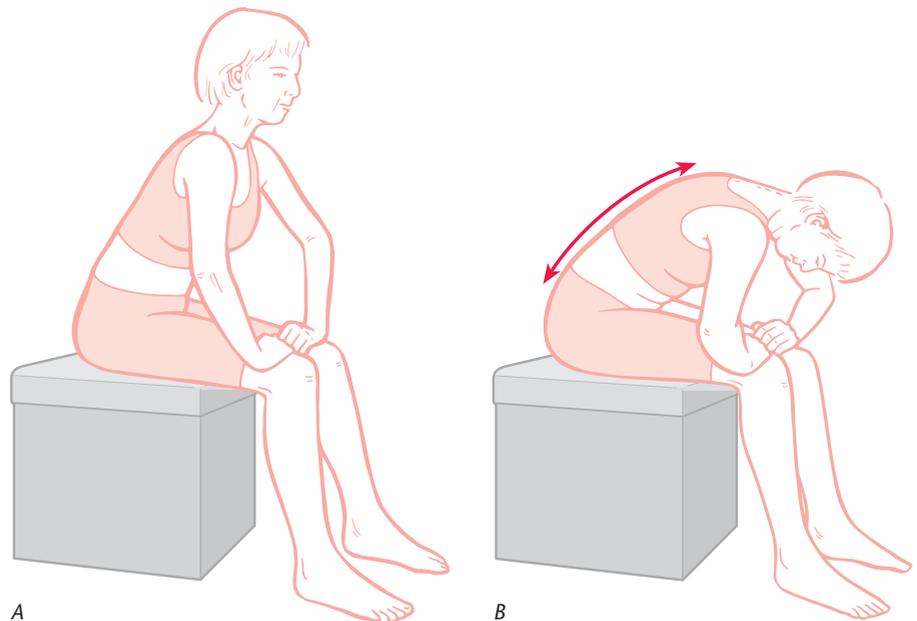
**KIRK'S METHODS**

Osteopath Chester Kirk presented a sequence of exercises (which I have modified slightly) in 1977, in the *Journal of the American Osteopathic Association*. All of these should be performed in a relaxed manner, with a gentle degree of effort.

**Flexibility exercise 1.**  
**Kirk's spinal stretch**

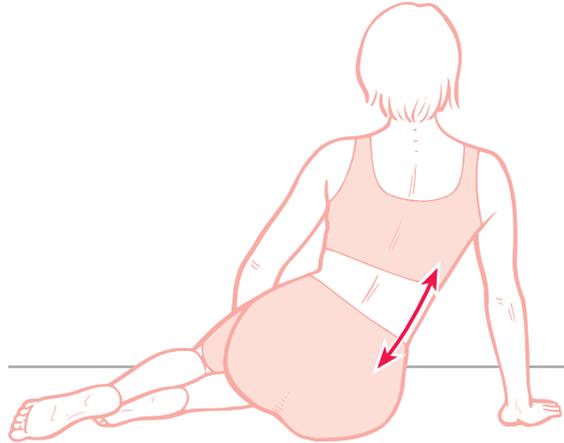
- Sit in a straight chair, feet flat on the floor, resting the palms of your hands on your thighs above your knees, fingers facing inwards (see Fig. 5.1A).
- Allow the weight of your upper body to be supported by your arms by allowing your elbows to bend outwards slightly as your head and chest come forward, until a *slight* stretching sensation is felt in your low back (see Fig. 5.1B).
- Hold this position for three full cycles of breathing (breathing normally) and then, as you exhale, take your upper body back to the starting position.
- Repeat this five times.
- It should be found that the forward lean increases gradually with each repetition as your back muscles relax.
- On the 5th move forward, stay in the flexed position for at least half a minute, before returning to the starting position.
- Your head should eventually get close to your knees, by which time your hands could be offering stability by grasping your lower legs for support.

**Figure 5.1** A: Starting position for seated spinal stretch. B: Stretch position for seated spinal stretch


**Flexibility exercise 2.**  
**Kirk's side-of-body stretch**

- Sit on the floor on one side of your buttocks (right in this example), knees bent and both feet together out to the left of your body.
- Sitting on your right buttock, your feet will be on the left, with your right arm straight and extended to the right, your hand on the floor and some of the weight taken by that arm.

**Figure 5.2** Position in which to apply pulsing efforts towards the upright position

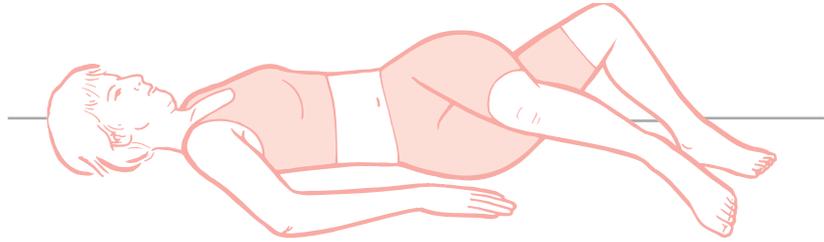


- Rest your left arm on your legs.
- Push against the floor with your right arm and hand, to take your body toward an upright position, until you feel a *slight* sense of strain or stretch in your low back, your hip or knee (see Fig. 5.2).
- Now introduce a rhythmic pushing of your left shoulder and trunk towards the midline (i.e. toward the left), *always keeping your elbow straight*.
- The rhythm should be at a rate of about two per second and this is best achieved by counting with each ‘push’ as follows: one-one, one-two; two-one, two-two; three-one, three-two, etc. until ten-two is reached.
- After 20 ‘pulsations’, stop for a few seconds and see if your trunk can be eased closer to upright by pushing on your arm, creating a new barrier of resistance, and then repeat the sequence of pulsations.
- These mini-pushes against resistance (resistance being offered by the tightness of the muscles that are preventing upright sitting) should be gentle, rapid, rhythmic and very small (no wobble, no bounce, just pulsing).
- After two or three 10 seconds 20 pulsations repetitions, rest for half a minute and change position so that the other side can be gently stretched and mobilized in the same way.

### Flexibility exercise 3. Kirk’s twisting spinal stretch

- Lie on your back on a carpeted floor, arms outstretched sideways, knees bent and your feet flat on the floor.
- Raise one leg, still slightly bent at the knee, and cross it over your other leg (left leg over right in this example), allowing gravity to take that leg towards the floor until your foot touches it (see Fig. 5.3).
- This will pull your left knee towards the floor, placing a rotational twist on your low back.
- No resistance should be offered.
- If any actual pain is felt, as opposed to a feeling of stretching, stop immediately.
- If your left arm wishes to rise from the floor, allow this to happen but try to let the whole body feel ‘heavy’, avoiding any tension, if at all possible.
- Now lift your left foot from the floor about 3–6 inches (7–15 cm) and start to perform a repetitive, bouncing action, towards the floor and up again.

**Figure 5.3** Position for spinal twist exercise



- Do this five times, springing the twisted segments of the spine gently, and then rest in this twisted position.
- Slowly and carefully return to the starting position and repeat this process on the other side of your body.
- This effectively stretches your low back, hip and shoulder regions.

**Flexibility exercise 4.**  
**Kirk's middle back spinal twist**

- Lie face upward on the floor with your legs apart at a comfortable angle and your hands interlocked behind your neck.
- Bring your elbows together and raise your head from the floor by a couple of inches (5 cm) (see Fig. 5.4).
- Repetitively and rhythmically twist your trunk in opposite directions, so that first one elbow strikes the floor and then the other.
- Repeat 5–10 times on each side.
- This effectively stretches your midthoracic spine.

**Figure 5.4** Twisting position to release mid-thoracic spine, floor exercise



**Flexibility exercise 5.**  
**Kirk's spinal mobilization: prayer position**

- Imagine that you are going to roll a pea along the floor with your chin! This is the position to adopt for the next exercise.
- Get onto your hands and knees, with your thighs and arms perpendicular to the floor and your fingers pointing towards each other.
- Bend your elbows to allow your head to drop towards your hands, but keep your head as upright as the position allows (i.e. not hanging downwards).
- Breathe normally and on an exhalation, take your chin as close to your hands as possible and slowly roll an invisible pea towards your knees with your chin.

**Figure 5.5** Rolling an invisible pea with chin to mobilize upper back region



- Lift your head and shoulders from the floor to the start position and inhale.
- Now exhale and take your chin towards your knees and slowly push the imaginary pea with your chin, but this time away from your knees, towards your hands (see Fig. 5.5).
- Then return to the starting position and inhale.
- Repeat each action (pea toward hands, pea away from hands) five times.
- Remember that the inhalations are taken only when you resume the position on all fours with your head and shoulders away from the floor.

*Additional rotational feature*

- If a rotational stretch is also needed in your upper back, then the exercise described so far can be modified by introducing a turn of the head throughout each of the positions described.
- This time try to imagine that the pea is being rolled forwards and then backwards by one ear and then the other.
- Again five repetitions of this variation should be performed with the head turned one way and then the other.

**Flexibility exercise 6.  
Kirk's lower back and trunk stretch**

- Sit on the floor with your legs outstretched.
- Cross your left leg over your right leg at the knees.
- Place your right hand between your crossed knees, to rest on the floor. This tends to lock the position of your legs.
- Take your left hand behind your body and place it on the floor 6–8 inches (15–20 cm) behind your buttocks, with your fingers pointing backwards.
- This twist should be performed to the comfortable limit, involving a full but painless rotation of your shoulders and trunk to the left (see Fig. 5.6).
- Your head should also then be turned as far to the left as possible, looking over your left shoulder.
- Stay in this position while you take a series of slow breaths, in and out.
- After five slow cycles of inhalation/exhalation, and as you exhale, try to increase the range of rotation slightly.
- Hold this new position for another five cycles of inhalation/exhalation before returning to the upright, untwisted position.
- Repeat the whole procedure to the other side, reversing all positions described above.
- No pain should be felt but a feeling of having had a great stretch is desirable.

**Figure 5.6** Spinal twist position



#### **CAUTION**

Remember that no pain should ever be experienced during or after the positions described. If pain is felt then you are forcing yourself beyond a comfortable stretch, which is all that is being asked.

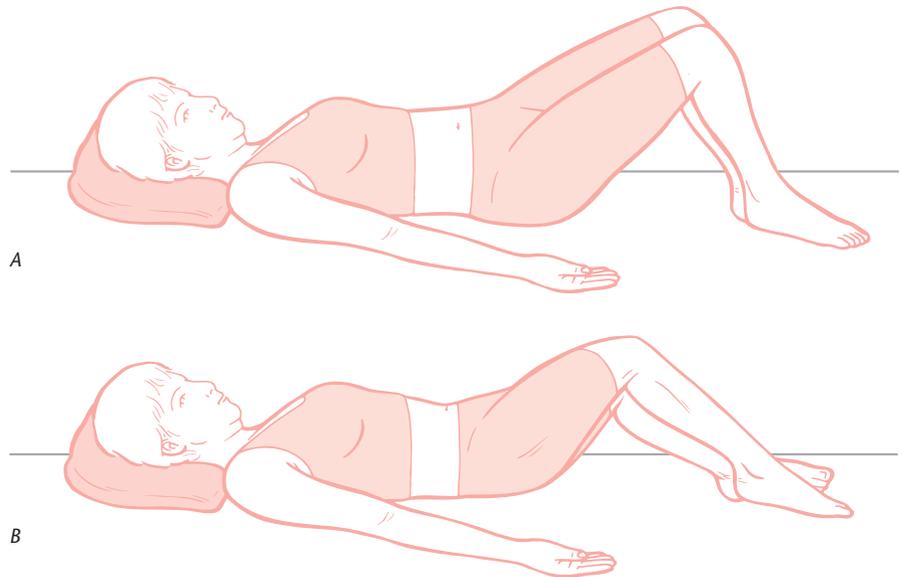
### **JONES' METHODS**

A series of four gentle self-mobilization methods, derived from osteopathic sources, are described below. These are modifications of the work of Lawrence Jones DO, the developer of strain and counterstrain (see Chapter 8).

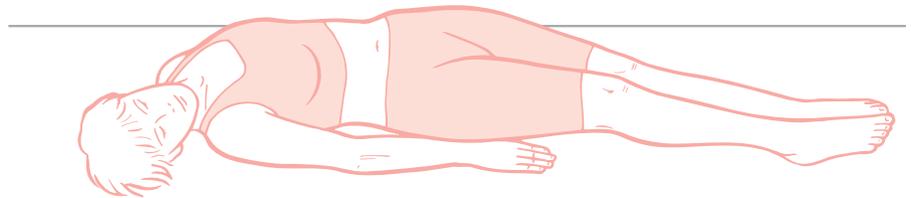
#### **Flexibility exercise 7. Jones' gentle gravity- induced spinal stretch**

- Lie face upwards on a carpeted floor, with a pillow under your head.
- Flex your knees so that your feet, which should be together, are flat on the floor.
- Keep your shoulders in contact with the floor by having your arms stretched sideways, palms upwards.
- Allow both your knees to fall to the right (in this example) as far as possible without pain.
- This places a twist on your lower and middle back muscles.
- Allow the weight of your legs to create a gravity-aided force against the inertia of the rest of your body.
- Your shoulders and feet should stay flat on the floor throughout the exercise.
- Breathe deeply and slowly for about 30 seconds and then take a deep breath which you should hold for as long as is comfortable.
- On releasing your breath allow your legs to fall further towards the floor and stay in this position for another 30 seconds.
- Bring your knees back to the midline and repeat the process to the left (see Figs 5.7A, B).

**Figure 5.7** A: Position for gravity-induced spinal stretch to the right. B: Position for gravity-induced spinal stretch to the left



**Figure 5.8** Supine side-bending stretch position



### Flexibility exercise 8. Jones' gentle side stretch

- Lie flat on the floor, legs outstretched, arms by your sides.
- Keeping your outstretched legs together, take them to one side or the other as far as is possible from the midline and rest them there (to the right in this example) (see Fig. 5.8).
- Take your head and shoulders slowly in the same direction (to the right) as far as is comfortably possible and rest in this position. You should now be lying in a C shape.
- You will have achieved a full side bend.
- Simply maintain this side-bent posture for 30 seconds, during which you should breathe deeply and slowly, then hold your breath for as long as is comfortable.
- As you release this breath, try to take your legs and your upper body slightly further to the right, to increase the stretch.
- Hold this for a further 30 seconds.
- A variation of this position would be, during the whole of the procedure, to extend your right arm towards your feet, whilst the left arm extends above your head.
- Return to the midline and perform the same procedure to the left.

**Figure 5.9** Curled position to gently stretch spinal muscles



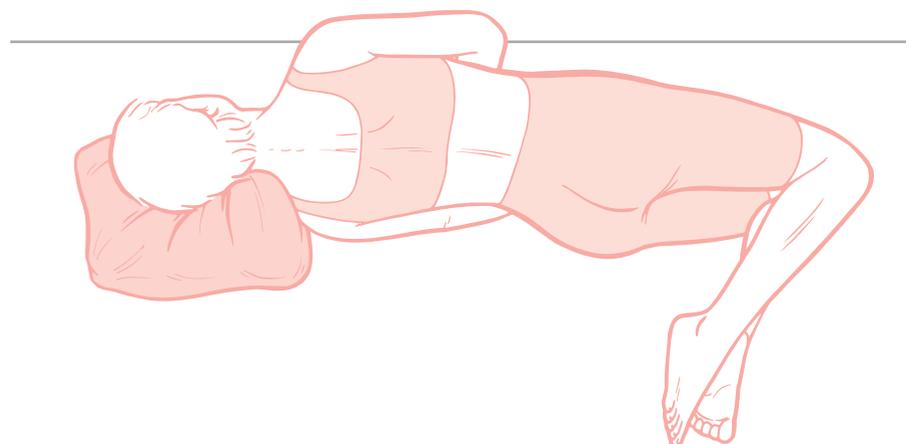
**Flexibility exercise 9.**  
**Jones' gentle curling stretch**

- Lie on one side or the other (on the right side in this example), pillow under your head (see Fig. 5.9).
- Keeping your legs together, one resting on the other, bend your knees and curl up into a bent position so that your back is as rounded as possible.
- Try to bring your nose as close to your knees as possible without any pain.
- Ensure that your neck or head is supported by a cushion all the time.
- Breathe slowly and deeply for 30 seconds. This is equivalent to approximately three or four cycles of complete inhalation and exhalation if slowly performed.
- Then hold your breath for as long as is comfortable.
- As you breathe out try to curl a little further and stay in this position for another 30 seconds.

**Flexibility exercise 10.**  
**Jones' gentle back-bending stretch**

- Lie on your side, keeping your legs together, one on top of the other.
- Your arms may be stretched downwards and backwards or folded on your chest during this exercise, but your neck and head should always be supported on a cushion.

**Figure 5.10**  
Back-bending stretch position



- Extend your legs backwards behind the midline as far as is comfortable, allowing your knees to bend (see Fig. 5.10).
- At the same time take your head and shoulders backwards, so that a side-lying, backwards bend is produced.
- Maintain this position for 30 seconds while breathing slowly and deeply and then hold your breath for as long as is comfortable.
- As you let the breath go try to stretch a little further into a back bend.
- Hold this position for a further 30 seconds.

Flexibility exercises 7, 8, 9 and 10 are all designed to be performed in a way that avoids the force of gravity being superimposed, allowing multiple releases of tight structures. The methods involve a combination of RI and PIR. A good deal of freedom of movement should be felt after doing this series, especially once it has been done for a few weeks, ideally every other day.

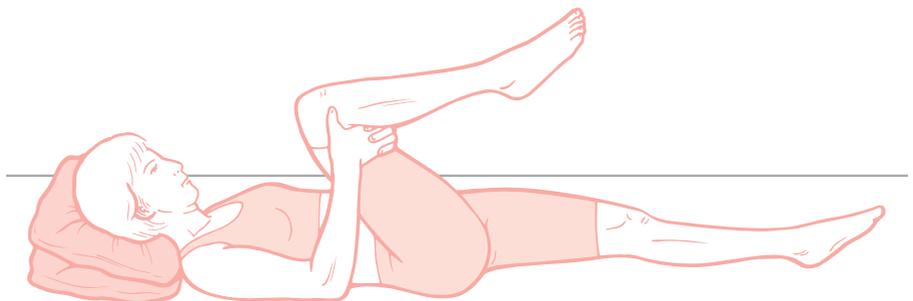
Remember that after the first few such sessions a degree of generalized muscle ache and stiffness is normal, as though strenuous exercise had been undertaken. This indicates nothing more than that the regions stretched were in need of this.

## Methods of mobilizing specific regions

### Flexibility exercise 11. Gentle release of low back and back of thigh

- Lie face upwards, with a cushion under your head.
- Keep one leg straight and bend the other at the hip and knee.
- Place your hands under your knee to grasp your lower thigh and pull this leg to your chest as close as is comfortable (see Fig. 5.11).
- Hold this position and your breath for as long as is comfortable.
- As you release your breath, pull your leg closer to your chest.
- Ensure that your other leg remains flat on the floor.
- Hold the stretch for a further 30 seconds and then repeat with the other leg.

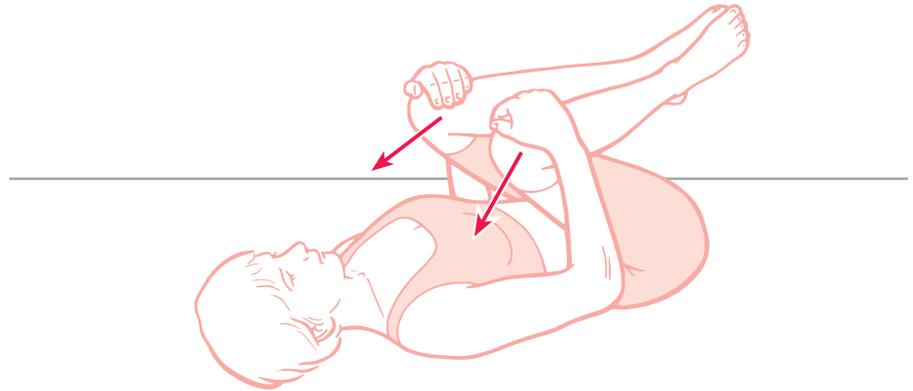
*Figure 5.11* Stretching  
the low back – one leg  
fixed



### Flexibility exercise 12. Breath-assisted release of low back

- Lie on your back without a cushion.
- Bend both legs at the hip and knee and, with legs apart and a hand on each knee, pull your legs towards their respective shoulders (see Fig. 5.12).
- When you reach the position with your knees closest to your shoulders, hold it and breathe in and hold your breath for as long as is comfortable.

**Figure 5.12** Position for low back release



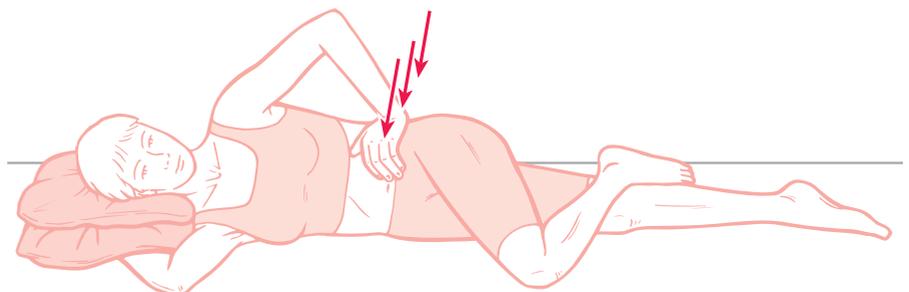
- As your breath is released pull your knees a little closer to your shoulders, *not your chest*, and hold this position for 30 seconds while breathing normally.
- Release and repeat once more.

### Flexibility exercise 13. Mobilization of the sacroiliac joint

**CAUTION** If you are aware of a sacroiliac problem and have had professional advice/attention, it would be wisest to discuss this exercise with your practitioner before using it. If your SI joint is restricted and you are awaiting attention, performing this *carefully* may produce a release. If you have never had an SI joint problem then there is probably no reason to perform this exercise.

- Lie on your unaffected side (side of troublesome SI joint uppermost, left side uppermost in this example), pillow under your head and with the lower (right in this example) leg straight.
- Allow the left knee, which should be flexed at both hip and knee, to rest on the floor, thus stabilizing the pelvis (see Fig. 5.13).
- Place the palm of the left hand on the prominent front portion of the pelvic bone so that the palm faces downwards to the floor.
- Repetitively and rhythmically ‘spring’ this bone in a direction roughly towards the lower ribs on the other (right) side, without any great force, for about 20 seconds.
- The repetitive downward (to the floor) and upward (toward the head) directions of this springing action cause a gentle gapping at the SI joint.

**Figure 5.13** Position for springing the SI joint

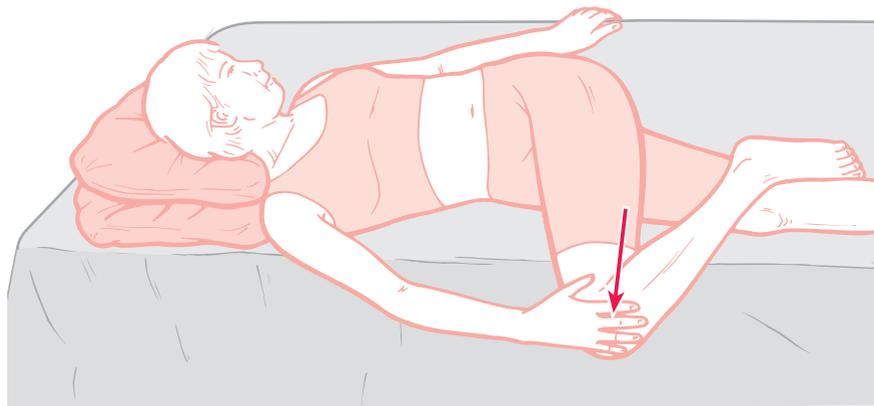


**Flexibility exercise 14.**  
**Low back**  
**mobilization using**  
**rotation**

- Lie on your side (right side in this example) close to the edge of a bed or table.
- Your lower (right) leg should be outstretched while the upper (left) leg is flexed at hip and knee, so that the left foot rests behind the outstretched right knee.
- To focus on the lower lumbar spine the toes should rest below the back of the knee.
- Your left arm should be taken behind the body to grasp the edge of the table/bed, so taking the upper body into rotation.
- You should now be face upwards, with your right hand resting on the flexed right knee, which should be over the edge of the table/bed (see Fig. 5.14).
- There now exists a good degree of torsion between the upper and lower body, *but no pain should be felt*.
- Breathe in deeply and hold your breath and at the same time turn your head left as far as is comfortable.
- At the same time, use your right hand to exert mild downward (to the floor) pressure on the right knee to increase the rotation.
- Hold your breath for as long as is comfortable and then simultaneously release both the pressure on the knee and the breath.
- Repeat this once or twice more.
- To complete the exercise, have the hand on the knee exert a rhythmic downwards springing motion at a rate of roughly once or twice per second, for 10–15 seconds.
- Repeat the process by turning onto your other side.

Note: To focus the rotation a little higher in the low back, adopt exactly the same position and procedure, except that the foot of your upper leg should rest above the knee of the lower leg, with the lower leg being very slightly flexed at the knee.

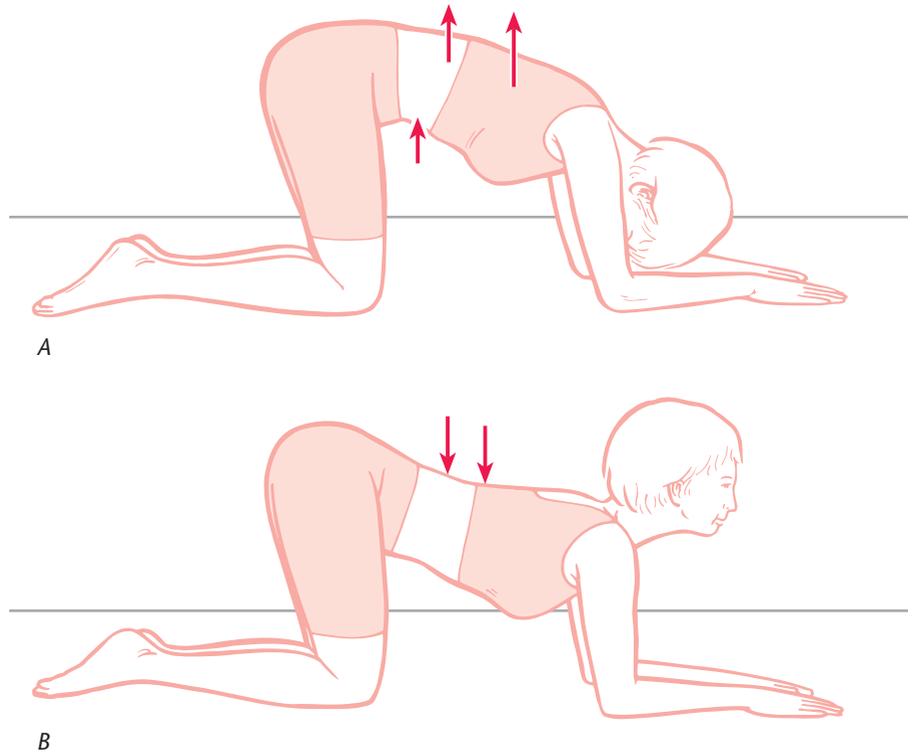
**Figure 5.14** Position for rotational mobilization of the low back



**Flexibility exercise 15.**  
**Cat/camel exercise**  
**for the thoracic spine**

- Kneel on a carpeted floor so that the weight is taken on your flexed knees and elbows.
- Your thighs should be at right angles to the floor.

**Figure 5.15** Positions for spinal mobilization.  
A: Camel. B: Cat



- To focus into the upper thoracic spine, have the elbows level with your ears.
- Breathe in deeply and arch your back upward as far as is possible, allowing your head to drop toward the floor, rounding the thoracic spine.
- Try to imagine that, as this is being done, your navel is being pulled upwards to meet the spine, thus effectively increasing the degree of arching (and increasing stability, as you will discover in Chapter 6) (see Fig. 5.15A).
- After holding your breath for 5 seconds or so, release it and simultaneously start to lower your thoracic spine toward the floor, while also raising the head (see Fig. 5.15B). This effectively flattens and depresses your thoracic spine.
- Hold this position for 5 seconds before inhaling and arching again.
- Repeat the cat/camel exercise five or six times in each direction.
- In order to localize the effect of this mobilization at the junction of the lumbar and thoracic spine, your hands, rather than the elbows, should be used for floor support. All other aspects of the procedure remain the same.

**Flexibility exercise 16.**  
**Gravity-assisted mobilization of upper thoracic spine (and upper ribs)**

- Sit on the edge of a table, knees apart, with head bowed forwards.
- Allow one arm to hang between your legs (left arm in this example) and the other down the outside of the other leg.
- Make sure your shoulder blades are relaxed and are not held in tension.
- Your head should be turned to the right (in this example).
- Take a deep breath in and at the same time, turn your head to its maximum degree of rotation to the right, and also stretch your left arm down towards the floor.

**Figure 5.16** Gravity-assisted stretch to mobilize upper back and ribs

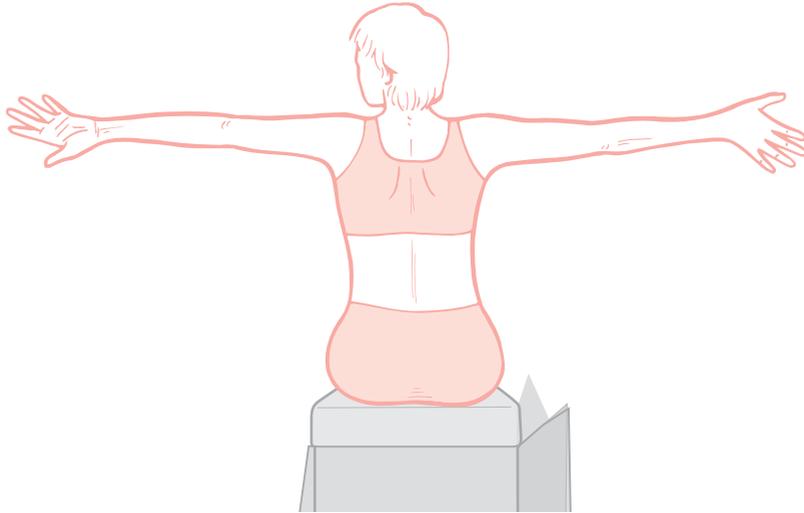


- Hold the stretch for as long as you can comfortably hold your breath and on release relax into that position for a further 15–20 seconds, allowing gravity to stretch your head and arms toward the floor (see Fig. 5.16).
- Repeat once or twice more.
- Keeping this position, with only gravity acting on the arms and the head turned to the same side as above, breathe slowly and deeply and try to ‘breathe into’ the tight areas you can feel in your upper back.
- This produces a separation of the ribs in this area and helps to mobilize the region further.
- Repeat the entire process on the other side.

### Flexibility exercise 17. Seated upper thoracic mobilization

- Sit on the edge of a bed or table.
- Stretch your arms sideways with fingers widely spread and rotate the arms at the shoulder, in opposite directions, so that one is turned palm backwards (left in this example) and the other palm upwards or forwards (right in this example) (see Fig. 5.17).
- Make sure that your arms are actually stretched out straight.
- Turn your head towards the side on which the hand is turned backwards (left), with the thumb facing the floor.
- After 3–5 seconds rotate your arms in opposite directions and simultaneously turn your head toward the side on which the thumb now faces the floor (right).
- Try to make sure that your shoulders do not hunch but are as relaxed as possible.
- Try to synchronize the movement of the head and arms so that as you breathe in you rotate the arms and turn your head, holding that position as

**Figure 5.17** Arm and head positions for upper thoracic mobilization exercise



you slowly exhale, and then moving to the reverse head and arm positions as you inhale again.

- Repeat the process 10 times.

**Flexibility exercise 18.**  
**Mobilization of lower neck and upper back**

- Lie face down with your elbows together, resting just forward of a line running from shoulder to shoulder.
- This elevates the upper back and, if your head is allowed to hang free, imposes a stretch on the junction area of neck and back.
- With your head hanging in this way, in the midline, breathe in and raise your head an inch (2.5 cm) or so while holding the breath for as long as is comfortable (see Fig. 5.18).
- As you release your breath allow the head to hang freely for a further 15–20 seconds before repeating once or twice more.
- Variations can include having your head turned slightly one way or the other while performing the sequence.

**Figure 5.18** Position for lower neck mobilization



