



AIS



Self-massage techniques



Introduction

This booklet aims to provide simple, easy-to-follow instructions on the application of self-massage. We hope you find it both informative and beneficial.

Maintaining optimal muscle condition is important for day-to-day life, as well as for preventing injuries and enhancing sporting performance. One very effective way of maintaining optimal muscle condition is through the use of self-massage.

Self-massage uses different techniques and tools to apply massage to muscle groups, and can be modified for individual needs and sporting requirements. Some of the benefits believed to result from self-massage include: reducing muscle fatigue, tightness and imbalance; aiding recovery; and gaining muscle awareness and flexibility.

By using self-massage techniques regularly you will become familiar with how your muscles normally feel, and will learn to recognise any changes (for example, an increase in tightness or pain). This will assist you in preventing injuries by enabling you to seek professional treatment at the first sign of change.

Note: Should you have any pre-existing musculoskeletal injuries, it is recommended that you consult your health professional before performing self-massage.

Hands on!

When to self-massage

Self-massage can be beneficial:

- > during times of heavy or increased training
- > on recovery days
- > when travelling
- > pre-competition – but only once you are familiar with the techniques and your own body's response to self-massage
- > post-competition.

As a general rule, treating one body area a day/night is a good way to use self-massage (for example, gluteals Monday night, hamstrings Tuesday night, etc.).

When not to self-massage

Self-massage is not recommended when you have:

- > an acute injury (injury that has occurred/ recurred in the last 24 hours)
- > inflammation (swelling)
- > bruising or corks
- > skin conditions including rashes, cuts, open wounds, blisters or ulcers
- > fever, infections and illness.

Throughout the booklet the shaded area in the illustrations is the pain referral pattern.

Techniques – what to do and how to do it

There are four main techniques for self-massage – broad-hand, direct pressure with movement, tennis balls, and foam rollers. There is a chance of post-treatment soreness.

Broad-hand techniques

Broad-hand techniques are applied with an open or closed hand, and are useful for warming up the muscles before deeper massage and for relaxing large muscle groups.



Squeezing



Pummeling



Rolling

Direct pressure with movement

This is a more specific technique that will allow you to concentrate on individual areas of tightness, as well as the whole muscle or muscle group. (Refer to the practical section of this booklet for images demonstrating how to shorten and lengthen specific muscle groups.)

Apply this technique as follows:

1. Gently shorten the muscle group. This is only a mild contraction.
2. Using your fingers, thumbs, elbows or forearms, apply firm pressure to the muscle. Direct the pressure down into the muscle and towards the joint above the area (for example, when working on the forearm, direct the pressure towards the elbow).
3. Slowly lengthen the muscle while maintaining the pressure.
4. Re-apply until the area has relaxed or feels looser, and then apply to the whole muscle.

Tennis balls

Tennis balls can be used to treat focal points of tenderness known as 'trigger points'. A trigger point may cause pain in the area in which it is located, or it may refer pain to other areas.

Approximate trigger point locations are marked with an 'x' on the body charts found in the practical section of this booklet. The shaded areas depict the possible referral zones.

After locating an area of tenderness or a trigger point, place the tennis ball on the point and allow your body weight to relax onto it for 10-20 seconds. You should feel the sensations gradually dissipate, thereby helping to deactivate the trigger point and relieve the pain and tightness caused by it. Remember that some muscle groups will require work on several trigger points.

When working areas such as the back, both sides of the spine can be worked simultaneously by taping two tennis balls together (double tennis balls) as shown below. Refer to the practical section of this booklet for directions on using a double tennis ball.



Single tennis ball



Double tennis balls

Self-massage aids

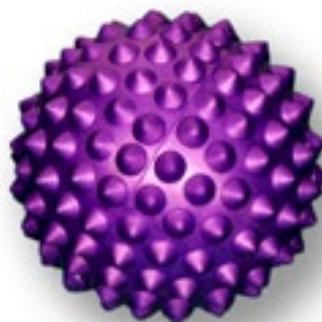
Foam rollers are another tool that can be useful for self-massage. You can massage broad areas of the body by rolling back and forth over them. Alternatively, hold your position on the roller while flexing and extending (bending and straightening) the joint below the roller. For example, place the roller at the lower end of the iliotibial band (ITB) then flex and extend your knee. See the practical section for images of this exercise.

Self-massage aids can also be useful for stretching.

The foam rollers come in half and full types as depicted below. 'Pool noodles' can also be cut into smaller lengths and used as full foam rollers.



Stick roller



Spiky ball



Full foam roller



Peanut spiky ball



Half foam roller



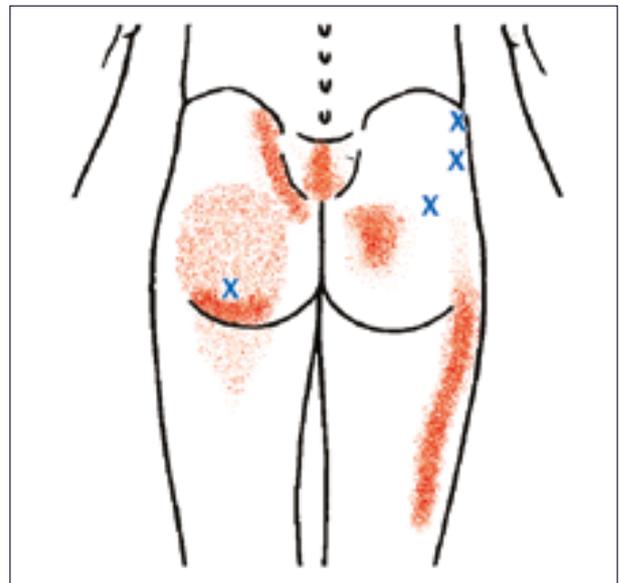
Muscle Mate

Get practical

Gluteals and hips

Gluteus maximus, gluteus minimus and piriformis

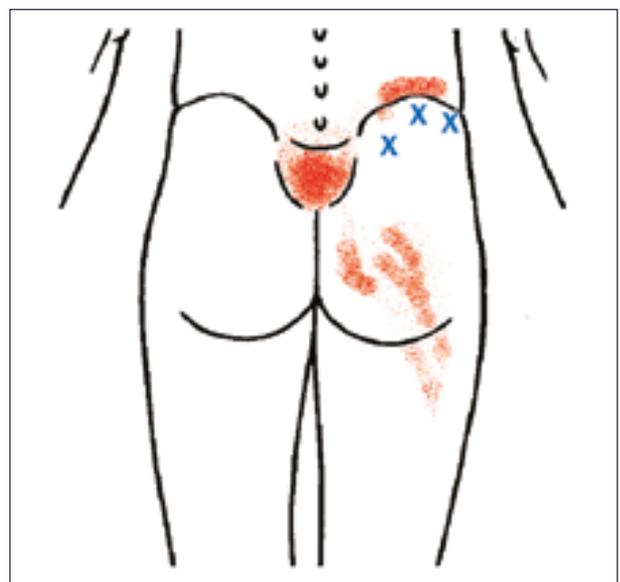
Lie on your back with one leg crossed over the other. Place a tennis ball under your gluteals.



This exercise should not cause pain or numbness down the thigh. This indicates sciatic nerve compression and should be avoided.

Gluteus medius

Lying on the side to be treated, place a tennis ball underneath the hip. Use your top leg for support and balance.



Tensor fascia latae

Lie on your front with your body weight to the side where the tennis ball is located.

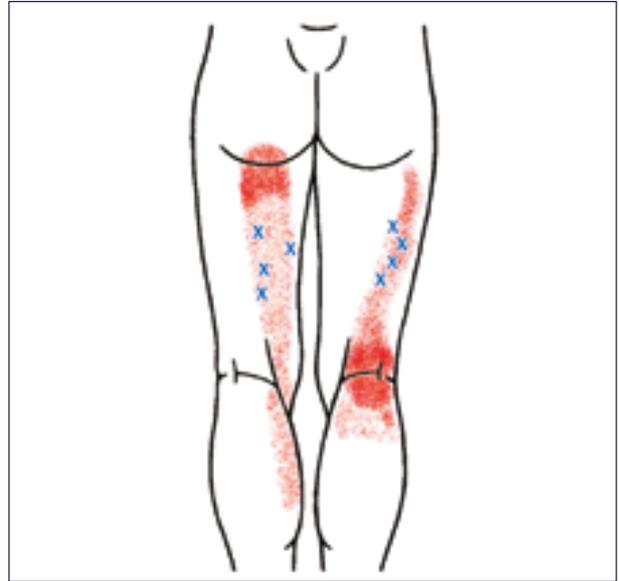


Upper legs

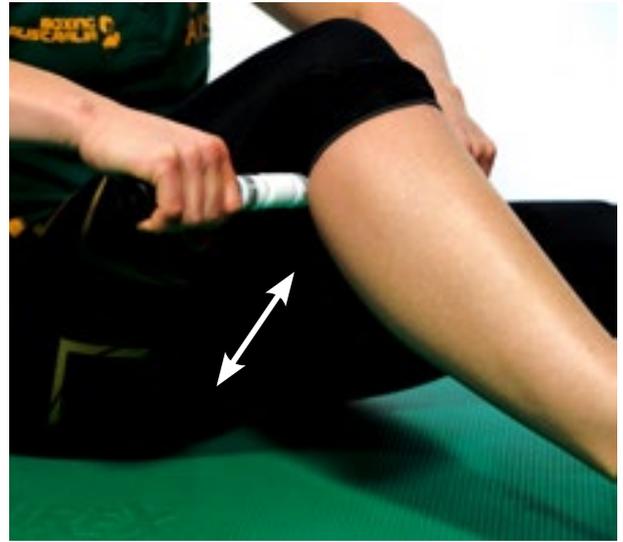
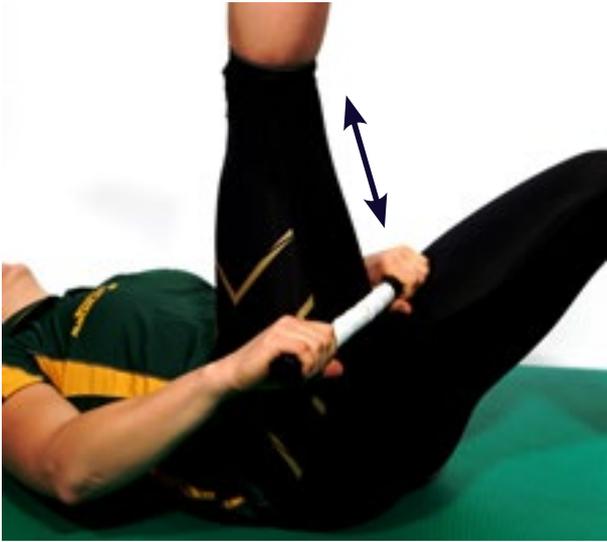
Hamstrings (back of thigh)

Lie on your back and lift one leg to 90 degrees at the hip and the knee.

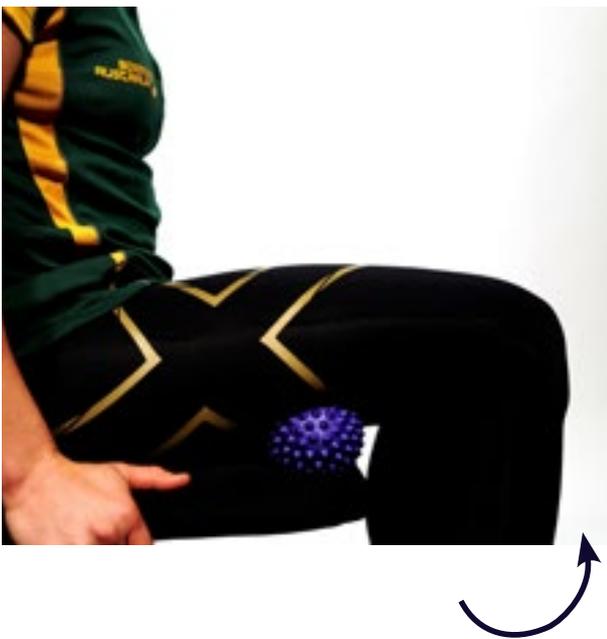
Keep your other leg lying flat on the ground. Place the fingers of both hands into the belly of the hamstring on the bent leg. Maintaining the same pressure with your fingers, slowly straighten your knee. Repeat this three times and then move hands over the entire hamstring muscle.



This exercise should not cause pain or numbness down the thigh. This indicates sciatic nerve compression and should be avoided.



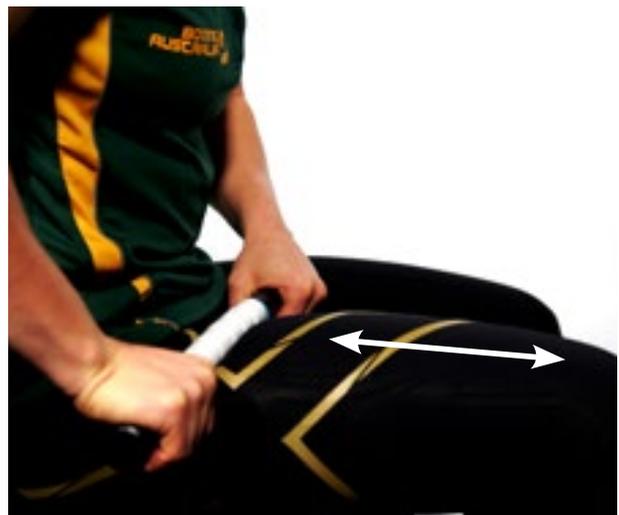
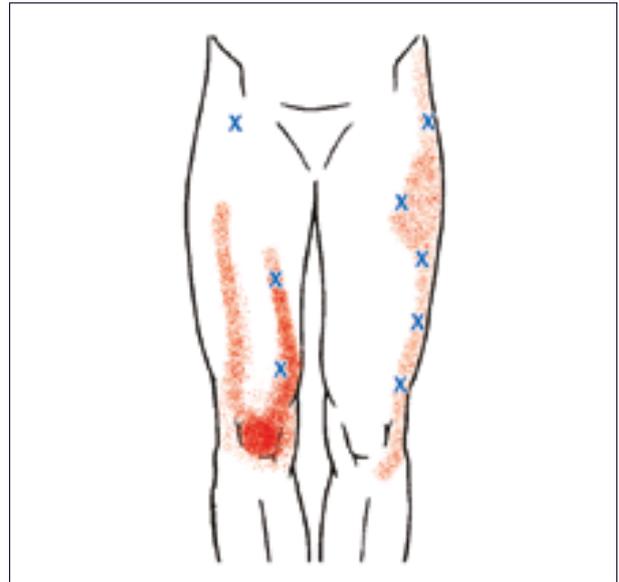
Sit on a chair or table so that your leg can swing freely. Place a tennis ball under one hamstring. Start at the top of the hamstring then straighten your leg slowly three times. Move the tennis ball an inch closer to the knee and repeat. Repeat until the whole hamstring has been treated.



Quadriceps

Apply broad-hand techniques such as pummeling. Then progress to applying direct pressure with movement. While sitting in a chair, pull elbow up quadriceps towards the body.

Lay on top of a foam roller and move quadricep up and down over the roller.



Iliotibial band (side of thigh)

Lie on the side to be treated and place a foam roller under your iliotibial band (ITB), just above your knee. Flex and straighten your knee five times. Then move the roller so it is positioned just below your hip. Flex and straighten your knee five times.

Alternatively, place a full roller under your ITB, and using your upper body to support and move you, slowly roll over the roller so the full length of the ITB is massaged. When on roller find any areas of tightness, flex and extend knee while on that spot.



Lower legs

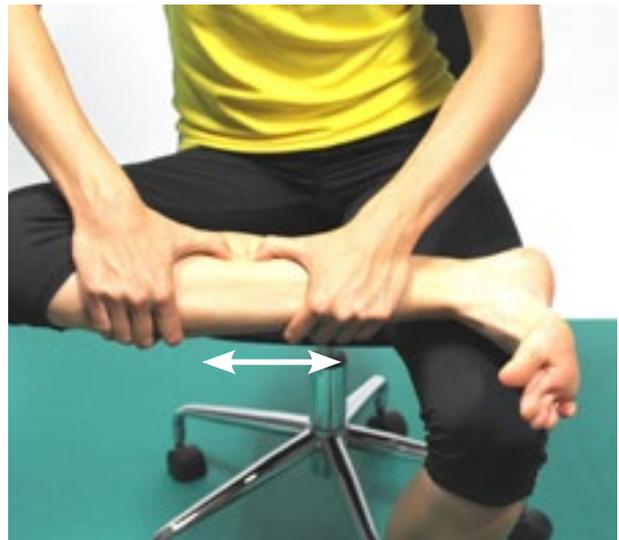
Gastrocnemius and soleus

1. Sit on the floor or on a chair with one foot resting on the opposite knee. Place your thumbs on your calf and your fingers on your tibia (shin bone) just above your ankle. Drag your thumbs through your calf towards your fingers. Repeat, moving the position of your hands closer to your knee each time. You can also use a stick or foam roller.
2. Place both thumbs in the calf, locating tender spots. Apply direct strong pressure with your thumbs, and then slowly flex and point your foot.



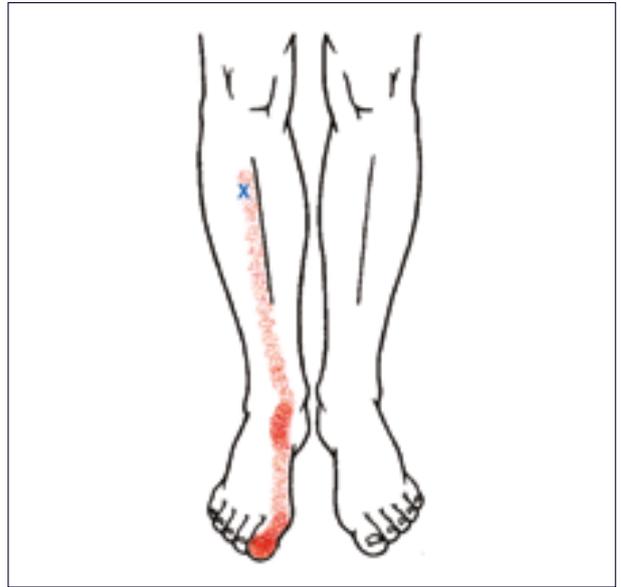
Tibialis posterior

Place your thumbs just inside your tibia and just above your ankle. Push the muscle away from the tibia. Repeat this process, moving the position of your hands closer to your knee each time.



Tibialis anterior

Tibialis anterior is immediately to the outside of your tibia. Locate trigger points using your thumbs, apply direct pressure and then slowly point and flex your foot. You can also roll up and down the muscle with a stick roller.

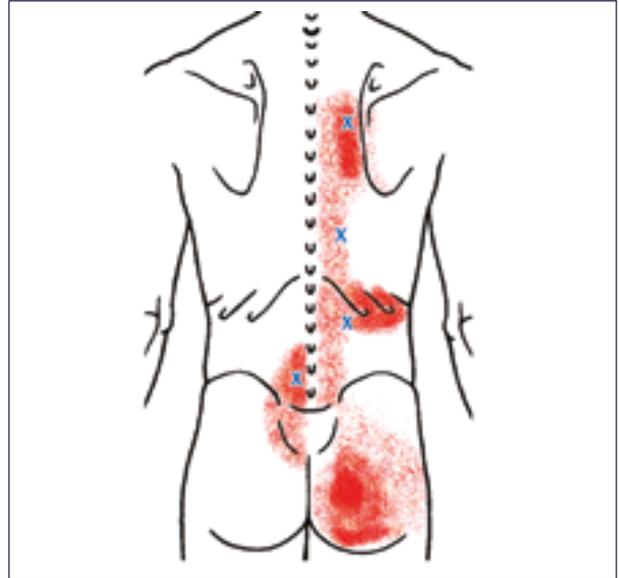


Back

Lumbar

Rest on your elbows and place double tennis balls at the base of your spine. The balls will be resting on the erector spinae muscle group that runs parallel to your spine on either side. Hold in one position, or rock back and forth moving the ball up and down the muscles.

Alternatively, work through the lower back, both close to and away from the spine using a single tennis ball. Gently moving your legs from side to side (with knees bent) will help you find the exact trigger points in your quadratus lumborum muscle.



Thoracic

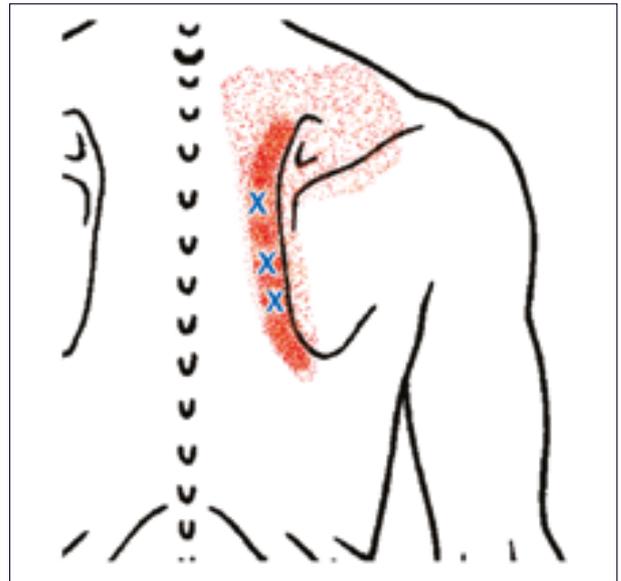
The thoracic area extends from the top of your shoulders to the top of your lower back. Lying on your back, place a tennis ball in the area of discomfort, resting your body weight over the tennis ball as depicted below.

Alternatively, you can place double tennis balls on either side of your spine, lean up against a wall and bend and straighten your knees so that the tennis balls run up and down your back.



Rhomboids

Lie on your back, place a spiky ball between your spine and your scapula (shoulder blade). Lift the arm on the same side as the ball, and move it slowly across your body and back again. Repeat three times then move the ball to the next point of discomfort and repeat the technique.



Thoracic stretch

Lie on your back with your knees bent. Place a foam roller horizontally across your thoracic spine at any level that you feel is tight or restricted. Hold this position for 30 seconds, then move the roller to the next area of tightness and repeat.



Combined thoracic and pectoral stretch

Lie on your back with your knees bent. Place a foam roller vertically under your spine, starting level with the top of your shoulders, and relax your arms out at 90 degree angles, as depicted in the image below. Hold this position for 30 seconds.

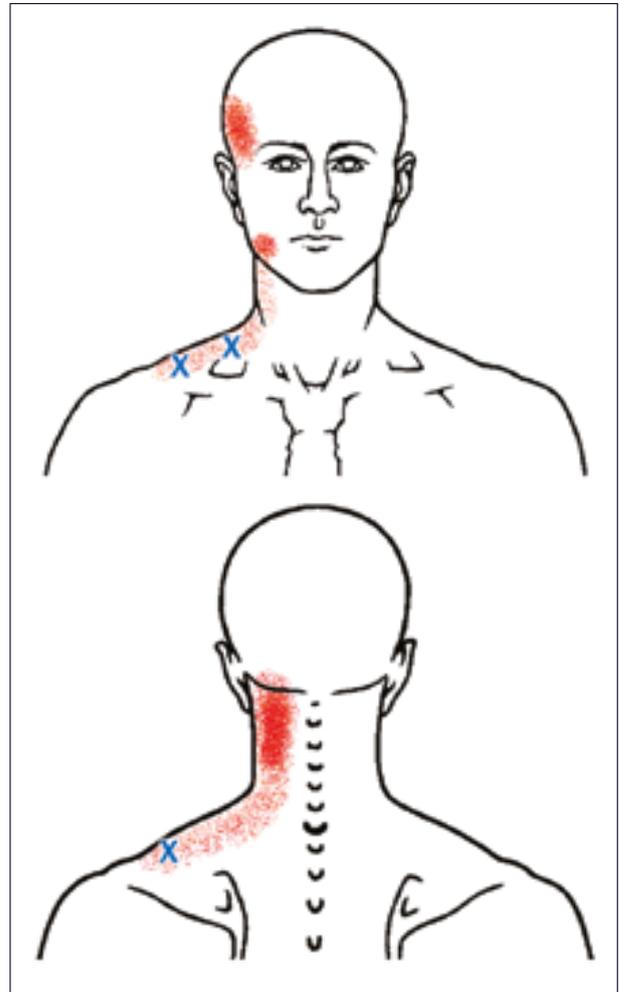


Neck

Upper trapezius

The upper trapezius muscle runs from the top of your neck to the outer point of your shoulder. Shorten this muscle by taking your ear towards your shoulder on the side on which you will be working (for example, right ear to right shoulder).

Pinch the muscle between your thumb and fingers, or apply downward pressure into the muscle using your fingers. Then slowly take your head to the other side (left ear to left shoulder).



Upper cervical muscles

Interlock the fingers of both hands and place them behind your head. Your thumbs should be free. Make large circular motions with your thumbs just below the base of your skull. Continue this action down your neck. If you locate a trigger point or an area of tenderness, press into the area, hold for 10–20 seconds then move on.

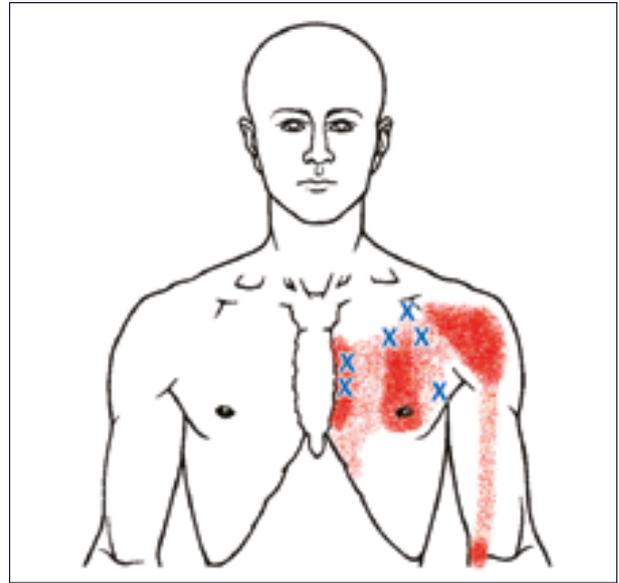
Alternatively, lie on your back and place double tennis balls just below the base of your skull. Rest your body weight over the tennis balls until you feel the muscles relax or any trigger points ease.



Chest

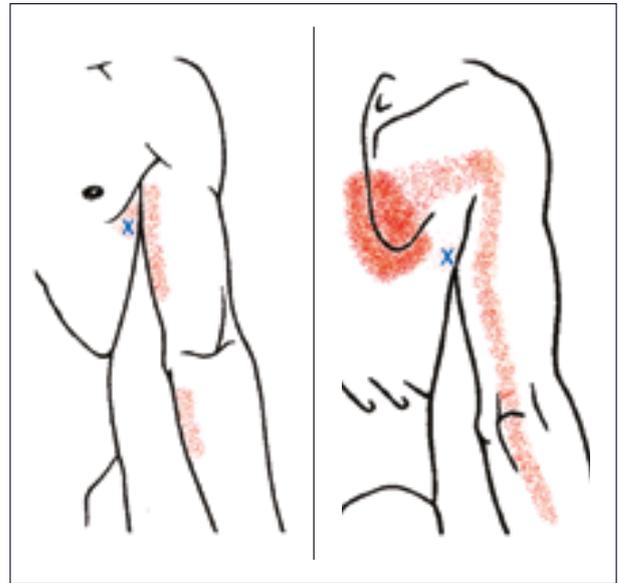
Pectorals

With your arms by your side, pinch the lateral/outside border of the pectoral muscle between your thumb and fingers, or press firmly into the muscle with your fingers. Then raise and rotate your arm as depicted below. Change your hand position and repeat until you have worked through the full muscle.



Latissimus dorsi

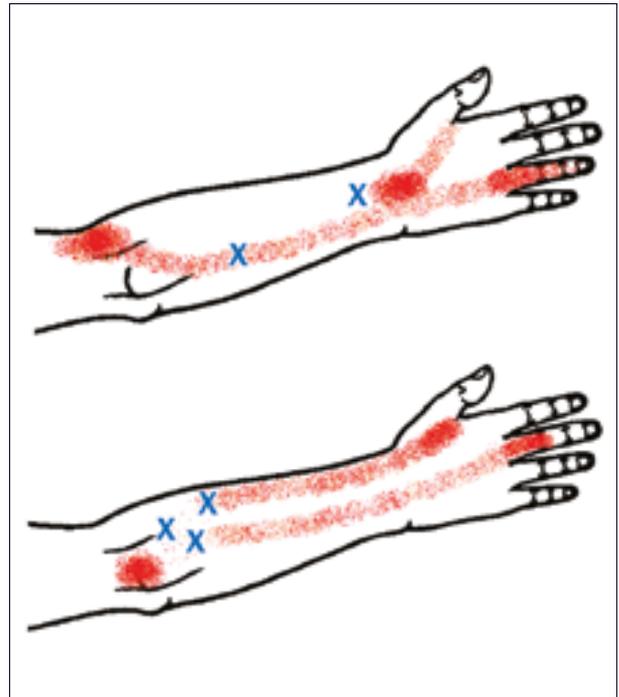
With your arm by your side, pinch the belly of the latissimus dorsi muscle between your thumb and fingers. Then raise your arm slowly to lengthen the muscle. Repeat three times.



Forearms

Forearm extensors

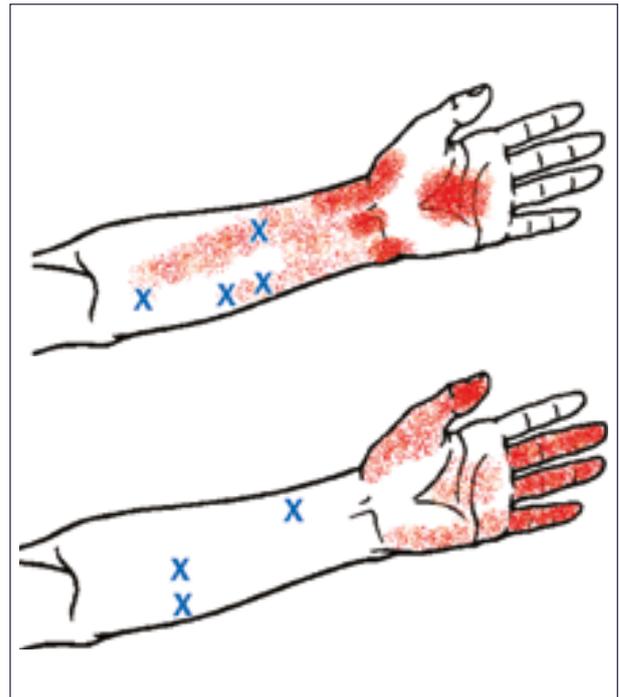
The forearm extensors are the muscles on the front of your arm that extend (pull back) your wrist and fingers. To shorten this muscle group, extend your wrist and hand upward. Using your other thumb, apply firm pressure into the extensor muscles and towards your elbow. Slowly bend your wrist down until your fingers are pointing to the ground. Repeat through the whole length of the muscle group.



Forearm flexors

The forearm flexors are the muscles on the inside of your forearm that flex (pull forward) your wrist and fingers.

To shorten this muscle group, close your hand and flex your wrist. Using your other thumb, apply firm pressure into the flexor muscles. Slowly extend your wrist and open your fingers so the muscles are in a lengthened position. Repeat through the full length of the muscle group.





Australian Government
Australian Sports Commission



AIS Physical Therapies
Australian Sports Commission

Leverrier Street Bruce ACT 2617

Phone: (02) 6214 1253

Fax: (02) 6214 7953

ausport.gov.au/ais/physicaltherapies