

PROFESSIONAL AND HOME USE

STRETCHING FOR PAIN RELIEF

HIP AND THIGH

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Fitness and Flexibility

An individual's physical fitness depends on a vast number of components, and flexibility is only one of these. Although flexibility is a vital part of physical fitness, it is important to see it as only one "spoke" in the "fitness wheel." Other components include strength, power, speed, endurance, balance, co-ordination, agility, and skill.

Whilst particular sports require different levels of each fitness component, it is essential to plan a regular exercise or training program that covers all the components of physical fitness. Rugby and American football (gridiron), for example, rely heavily on strength and power; however, the exclusion of skill drills and flexibility training could lead to serious injury and poor performance. Strength and flexibility are of prime concern to a gymnast, but a sound training program would also improve power, speed, and endurance.

The same is true for each individual: while some people seem to be naturally strong or flexible, it would be foolish for such persons to completely ignore the other components of physical fitness. And just because an individual exhibits good flexibility at one joint or muscle group, it does not mean that the entire individual will be flexible. Therefore, flexibility must be viewed as specific to a particular joint or muscle group.

The Dangers and Limitations of Poor Flexibility

Muscles that are tight and stiff limit our normal range of motion. In some cases, lack of flexibility can be a major contributing factor to muscle and joint pain. In the extreme, lack of flexibility can mean it is difficult, for example, to even bend down or look over the shoulder.

Tight, stiff muscles also interfere with proper muscle action. If the muscles cannot contract and relax efficiently, the result will be a decrease in performance and a lack of muscle movement control. Moreover, short, tight muscles cause a dramatic loss of strength, power, and efficiency during physical activity.

In a very small percentage of cases, muscles that are tight and stiff can even restrict blood circulation. Good blood circulation is vitally important in helping the muscles receive adequate amounts of oxygen and nutrients. Poor circulation can result in increased muscle fatigue and, ultimately, will impede the muscles' repair process and the ability to recover from strenuous exercise.

Any one of these factors can greatly increase the chances of becoming injured. Together they present a package that includes muscular discomfort, loss of performance, an increased risk of injury, and a greater likelihood of repeated injury.

Causes of Restricted Flexibility

The muscular system needs to be flexible in order to achieve peak performance, and stretching is the most effective way of developing and retaining flexible muscles and tendons. However, a number of other factors also contribute to a decrease in flexibility.

Flexibility, or range of motion, can be restricted by both internal and external factors. Internal factors such as bones, ligaments, muscle bulk, muscle length, tendons, and skin all restrict the amount of movement at any particular joint. As an example, the human leg cannot bend forward beyond a straight position, because of the structure of the bones and ligaments that make up the knee joint.

External factors such as age, gender, temperature, restrictive clothing, and of course any injury or disability will also have an impact on one's flexibility.

Flexibility and the Ageing Process

It is no secret that with each passing year, the muscles and joints seem to become stiffer and tighter. This is part of the ageing process and is caused by a combination of physical degeneration and inactivity. Although we cannot help getting older, this should not mean that we give up trying to improve our flexibility.

Age should not be a barrier to a fit and active lifestyle, but certain precautions should be taken as we get older. Participants just need to work at it for longer, be a little more patient, and take a lot more care.

Stretching

Stretching has a host of benefits, including:

- Improved range of motion
- Increased power
- Diminished post-treatment soreness
- Reduced fatigue

Stretching the muscles with trigger points, or the muscles that you are trying to strengthen, is important for breaking old holding patterns, restoring range of motion, and preventing injury. Gently stretching after a trigger point treatment session or after strengthening exercises can help reduce muscle soreness and keep your muscles long and flexible.

Types of Stretching

There are many different ways to stretch, each with its advantages and disadvantages. The two most recommended techniques are: (1) passive/static stretching, best used at home or after treatment; and (2) proprioceptive neuromuscular facilitation (PNF), best used when working with a partner.

The effects of different techniques vary from person to person. It is advised to warm up for 10 minutes before stretching, whether with some cardiovascular exercises or a warm/hot shower.

Passive/Static Stretching Technique

This technique is safe and effective for the novice:

1. Place the body in a position where the muscle you want to stretch can be put under tension.
2. Slowly and cautiously approach the stretch.

Do not stretch to the point of pain—discomfort is expected, but be cautious not to force the stretch.

3. Hold for a minimum of 20 seconds (45–60 is best) and allow the muscle to lengthen.
4. Breathe and relax
5. Gently come away and rest for 45–60 seconds.
6. Repeat the stretch 2–3 times
7. Repeat 2–3 times daily.

Increase efficiency by stretching the antagonist (the opposite muscle) straight afterwards.

Proprioceptive Neuromuscular Facilitation (PNF)

This is a more advanced technique and may be used for obtaining more permanent results; it also improves muscular strength. There are several forms of PNF stretches, including “hold relax stretch” or “contract relax stretch.”

1. Position the muscle group so that it is under tension, and hold.
2. Contract the stretched muscle for 5–6 seconds while a partner resists you moving the joints.
3. Stretch the muscle again for approximately 30 seconds.
4. Rest/recover for 30 seconds.
5. Repeat the procedure 2–4 times (up to 10 minutes).
6. Repeat 2–3 times daily.

Protocol for Stretching

As a rule any stretching program should be continued for four to six weeks, unless otherwise specified by your practitioner, doctor, or physical therapist. After your recovery, these exercises can be continued as a maintenance program for lifelong protection and health.

Performing the exercises two to three days a week will maintain strength and range of motion. A goal should be to make a regular time at home every day for stretching the affected muscles toward obtaining full range of motion. It is also advised to keep a diary of any stretches that aggravate your trigger point symptoms.

Remember to warm up before doing stretches: perform 5 to 10 minutes of low-impact activity, such as walking or riding a stationary bicycle.

NB: Do not ignore pain. It is important to be aware that overzealous stretching can reactivate latent trigger points. The advice is to progress

gradually from one stretch to another and listen to your body; different stretches work different types of fiber and afford the brain a better sense of self. You should not feel severe pain during or after a stretch: in general, if a stretch activates your trigger point pain, it should be stopped.

Pain on rest can indicate that the trigger points are very active. The advice here is either to rhythmically move the effected area in warm water or to apply moist heat and the gentlest of massage.

Talk to your practitioner, doctor, or physical therapist if you have any pain while stretching.

Foam Roller Stretching

Foam rollers have been used since the 1950s to stretch ease and ‘rebalance’ muscular tension. Dr. Moshe Feldenkrais is credited with having been the first person to use them for therapeutic purposes. Foam rollers come in various shapes, sizes and densities; they are cheap to buy and easy to use. Selecting the best roller is down to personal choice. Often this depends on your height, weight and the area you are looking to stretch.

Rollers can be very effective at deactivating trigger points both on their own, after hands-on techniques, and after dry needling. Using a foam roller is simple; used properly they can be very effective for improving:

- Balance
- Flexibility
- Coordination
- Relaxation
- Range of motion

Medical Disclaimer

The techniques offered in this book are not a substitute for proper therapy from a registered practitioner; although aches and pains from trigger points and muscle injuries are common, there can sometimes be an underlying pathology. It is advisable to always seek a proper diagnosis from a qualified medical practitioner.

You follow the techniques described in this book at your own risk.

If you think you may be suffering from any medical condition you should seek immediate medical attention. You should never delay seeking medical advice, disregard medical advice, or discontinue medical treatment because of information provided herein.



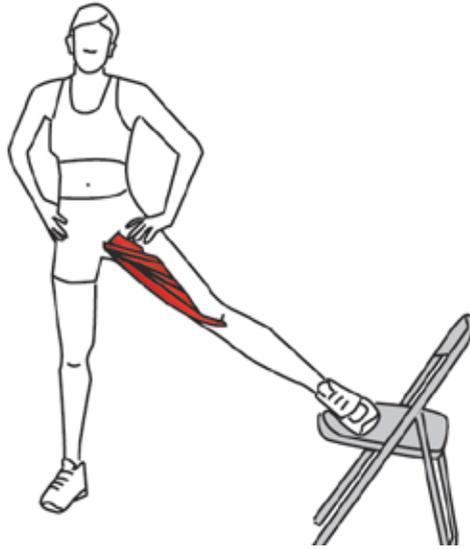
TECHNIQUE: Sit with the soles of your feet together and bring your feet towards your groin. Hold onto your ankles and push your knee towards the ground with your elbows. Keep your back straight and upright.

PRIMARY MUSCLES: Adductor longus, brevis, and magnus.

SECONDARY MUSCLES: Pronator teres. Flexor carpi radialis. Flexor carpi ulnaris. Gracilis. Pectineus.

INJURY WHERE STRETCH MAY BE USEFUL: Avulsion fracture in the pelvic area. Groin strain. Osteitis pubis. Piriformis syndrome. Tendonitis of the adductor muscles. Trochanteric bursitis.

NOTE: Keep your back straight and use your elbows to regulate the intensity of this stretch.



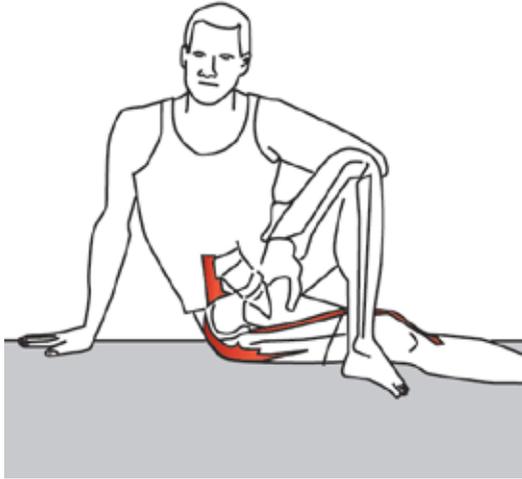
TECHNIQUE: Stand upright and place one leg out to the side and your foot up on a raised object. Keep your toes facing forward and slowly move your other leg away from the object.

PRIMARY MUSCLES: Adductor longus, brevis, and magnus.

SECONDARY MUSCLES: Gracilis. Pectineus.

INJURY WHERE STRETCH MAY BE USEFUL: Avulsion fracture in the pelvic area. Groin strain. Osteitis pubis. Piriformis syndrome. Tendonitis of the adductor muscles. Trochanteric bursitis.

NOTE: To increase the intensity of this stretch, use a higher object and if you need to, hold onto something for balance.



TECHNIQUE: Lean on your side on the ground and bring your top leg up to your other knee. Push your body up with your arm and keep your hip on the ground.

PRIMARY MUSCLES: Tensor fasciae latae. Gluteus medius and minimus.

SECONDARY MUSCLES: Sartorius. Quadratus lumborum.

INJURY WHERE STRETCH MAY BE USEFUL: Trochanteric bursitis. Iliotibial band syndrome.

NOTE: Increase the intensity of this stretch by lowering yourself towards the ground.



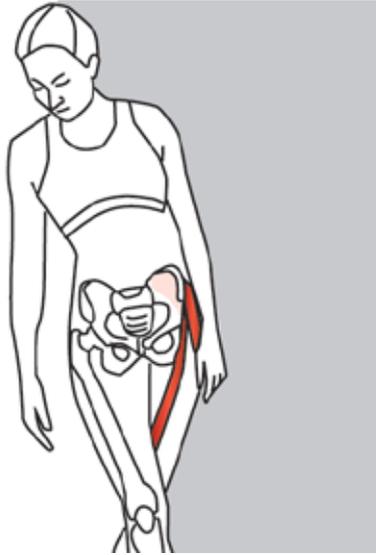
TECHNIQUE: Stand upright beside a wall or table with both feet together. Lean your upper body towards the wall and push your hips away from the wall. Keep your outside leg straight and your inside leg slightly bent.

PRIMARY MUSCLES: Tensor fasciae latae. Gluteus medius and minimus.

SECONDARY MUSCLES: Sartorius.

INJURY WHERE STRETCH MAY BE USEFUL: Trochanteric bursitis. Iliotibial band syndrome.

NOTE: It is important not to bend forward during this stretch. Keep your body upright and concentrate on pushing your hips away from the object you're leaning on. Make sure you choose something sturdy to lean on. Something that can take your weight!



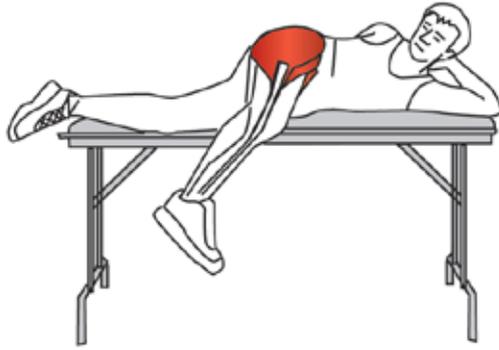
TECHNIQUE: Stand upright and cross one foot behind the other. Lean towards the foot that is behind the other.

PRIMARY MUSCLES: Tensor fasciae latae. Gluteus medius and minimus.

SECONDARY MUSCLES: Sartorius.

INJURY WHERE STRETCH MAY BE USEFUL: Trochanteric bursitis. Iliotibial band syndrome.

NOTE: If need be, hold onto something for balance. This will allow you to concentrate on the stretch, instead of worrying about falling over.



TECHNIQUE: Lie on a bench on your side. Allow the top leg to fall forward and off the side of the bench.

PRIMARY MUSCLES: Tensor fasciae latae. Gluteus medius and minimus.

SECONDARY MUSCLES: Sartorius. Gluteus maximus.

INJURY WHERE STRETCH MAY BE USEFUL: Trochanteric bursitis. Iliotibial band syndrome.

NOTE: Try not to let your leg fall too far forward and use the weight of your leg to do the stretching for you.



TECHNIQUE: Stand with one foot raised onto a chair or an object. Keep your leg slightly bent and let your heel drop off the edge of the object. Keep your back straight and move your chest towards your thigh.

PRIMARY MUSCLES: Semimembranosus. Semitendinosus. Biceps femoris.

SECONDARY MUSCLES: Soleus.

INJURY WHERE STRETCH MAY BE USEFUL: Hamstring strain. Achilles tendon strain. Achilles tendonitis. Medial tibial pain syndrome (shin splints).

NOTE: Pushing your heel down towards the ground will help to intensify this stretch.



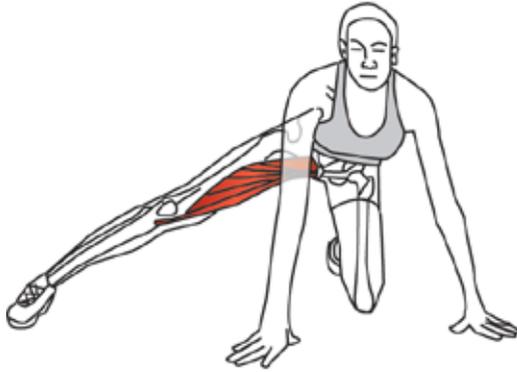
TECHNIQUE: Stand with your feet shoulder-width apart. Bend forward and reach towards the ground.

PRIMARY MUSCLES: Semimembranosus. Semitendinosus. Biceps femoris.

SECONDARY MUSCLES: Gastrocnemius. Gluteus maximus. Iliocostalis lumborum. Spinalis thoracis. Interspinales. Multifidus.

INJURY WHERE STRETCH MAY BE USEFUL: Lower back muscle strain. Lower back ligament sprain. Hamstring strain. Calf strain.

NOTE: This position puts a lot of stress on the lower back muscles and the knees. Avoid this stretch if you have lower back pain or knee pain.



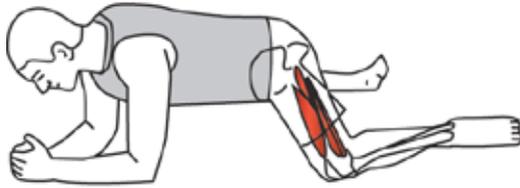
TECHNIQUE: Kneel on one knee and place your other leg out to the side with your toes facing forward. Rest your hands on the ground and slowly move your foot further out to the side.

PRIMARY MUSCLES: Adductor longus, brevis, and magnus.

SECONDARY MUSCLES: Gracilis. Pectineus.

INJURY WHERE STRETCH MAY BE USEFUL: Avulsion fracture in the pelvic area. Groin strain. Osteitis pubis. Piriformis syndrome. Tendonitis of the adductor muscles. Trochanteric bursitis.

NOTE: If need be, place a towel or mat under your knee for comfort.



TECHNIQUE: Kneel face down with your knees and toes facing out. Lean forward and let your knees move outwards.

PRIMARY MUSCLES: Adductor longus, brevis, and magnus.

SECONDARY MUSCLES: Gracilis. Pectineus.

INJURY WHERE STRETCH MAY BE USEFUL: Avulsion fracture in the pelvic area. Groin strain. Osteitis pubis. Piriformis syndrome. Tendonitis of the adductor muscles. Trochanteric bursitis.

NOTE: Increase the intensity by lowering yourself towards the ground.



TECHNIQUE: Stand beside a chair or table for balance, and place one ankle on your opposite knee. Slowly lower yourself towards the ground.

PRIMARY MUSCLES: Piriformis. Gemellus superior and inferior. Obturator internus and externus. Quadratus femoris.

SECONDARY MUSCLES: Gluteus maximus.

INJURY WHERE STRETCH MAY BE USEFUL: Piriformis syndrome. Snapping hip syndrome. Trochanteric bursitis.

NOTE: Use the leg you are standing on to regulate the intensity of this stretch. The lower you go, the more tension you will feel. Make sure you choose something sturdy to lean on. Something that can take your weight!



TECHNIQUE: Sit with one leg straight and hold onto your other ankle. Pull it directly towards your chest.

PRIMARY MUSCLES: Piriformis. Gemellus superior and inferior. Obturator internus and externus. Quadratus femoris.

SECONDARY MUSCLES: Gluteus maximus.

INJURY WHERE STRETCH MAY BE USEFUL: Piriformis syndrome. Snapping hip syndrome. Trochanteric bursitis.

NOTE: Use your hands and arms to regulate the intensity of this stretch. The closer you pull your foot to your chest, the more intense the stretch.



TECHNIQUE: Lie on your side and pull your top leg behind your buttocks. Keep your knees together and push your hips forward.

PRIMARY MUSCLES: Rectus femoris. Vastus medialis, lateralis, and intermedius.

SECONDARY MUSCLES: Iliacus. Psoas major.

INJURY WHERE STRETCH MAY BE USEFUL: Hip flexor strain. Avulsion fracture in the pelvic area. Osteitis pubis. Iliopsoas tendonitis. Trochanteric bursitis. Quadriceps strain. Quadriceps tendonitis. Patellofemoral pain syndrome. Patellar tendonitis. Subluxing kneecap.

NOTE: This position will put a lot of pressure on the knee joint and ligaments. Anyone with knee pain or knee injury should avoid this stretch.



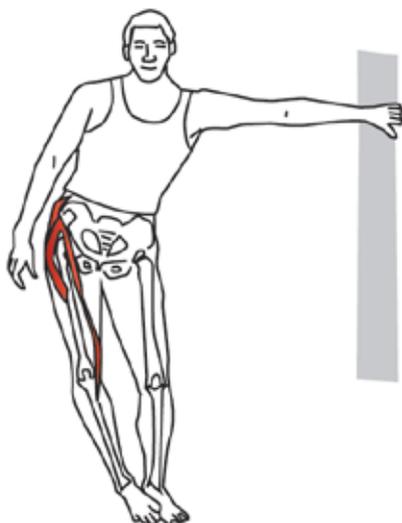
TECHNIQUE: Lie face down and pull one foot up behind your buttocks.

PRIMARY MUSCLES: Rectus femoris. Vastus medialis, lateralis, and intermedius.

SECONDARY MUSCLES: Iliacus. Psoas major..

INJURY WHERE STRETCH MAY BE USEFUL: Hip flexor strain. Avulsion fracture in the pelvic area. Osteitis pubis. Iliopsoas tendonitis. Trochanteric bursitis. Quadriceps strain. Quadriceps tendonitis. Patellofemoral pain syndrome. Patellar tendonitis. Subluxing kneecap.

NOTE: This position can put undue pressure on the knee joint and ligaments. Anyone with knee pain or knee injury should avoid this stretch.



TECHNIQUE: Hold onto the pole with one hand, while standing next to a pole or door jam. Keep your feet together, and lean your hips away from the pole. Keep your outside leg straight and bend your inside leg slightly.

PRIMARY MUSCLES: Tensor fasciae latae. Gluteus medius and minimus.

SECONDARY MUSCLES: Sartorius.

INJURY WHERE STRETCH MAY BE USEFUL: Trochanteric bursitis. Iliotibial band syndrome.

NOTE: It is important not to bend forward during this stretch. Keep your body upright and concentrate on pushing your hips away from the object you are holding on to.



TECHNIQUE: While standing, lean forward and hold onto a chair or bench to help with balance. Cross one foot behind the other and slide that foot away from your body, keeping your leg straight. Slowly bend your front leg to lower your body.

PRIMARY MUSCLES: Tensor fasciae latae. Gluteus medius and minimus.

SECONDARY MUSCLES: Sartorius.

INJURY WHERE STRETCH MAY BE USEFUL: Trochanteric bursitis. Iliotibial band syndrome.

NOTE: Regulate the intensity of the stretch by using your bent leg to slowly lower your body.

