

M U S C L E   D O C T O R

# MOBILITY

The comprehensive and easy-to-use guide to a flexible,  
mobile and pain-free existence for life.

For people in pain and the therapists that treat them.



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# Introduction

**Ageing is inevitable, losing your mobility and physical well-being as a result is not.**

Whenever I talk about posture to clients in clinic you almost always see them instantly sit up a little bit straighter. I'm sure posture is something we could all stand to improve on, myself included. I often get asked questions like: 'What is the best posture?' or 'Which position should I sleep?'. I have a few stock answers that I give to these questions such as:

**'The best posture is the next posture'**

**'Movement is medicine'**

**'Motion is lotion'**

The fact is, we were made to move, and it is the lack of movement and not using our bodies as they were intended to be used that causes this lack of mobility and can result in pain.

Picture the little old man hobbling down the street, bent over his walking frame. In most cases, this posture didn't happen overnight or even over the course of a few months or years. It is decades of failing to move his body that has caused this eventual severe postural deformity and it can happen to all of us. But, for most of us, it is not too late – there is something we can do to stop this.

Imagine a rusty hinge, it doesn't move as it should and feels locked in place. If we squirt some oil into the moving parts and slowly move it back and forth it will begin to loosen up. Our bodies have synovial fluid – our own, home-made WD40 – when we start to move our joints this fluid is produced and distributed throughout the joint, lubricating it and creating easier movement. Remember – motion is lotion!

The aim of this book is to get your body moving as it was designed to do. If you find you're a little stiff when first attempting some of the movements then you're just the person this book was written for. If you find them fairly comfortable then it may be a good idea to continue with these exercises throughout your life – if you don't use it, you will lose it!

# Some things you need to know

Although stretching looks straight-forward enough, there are correct and incorrect ways to do it. Many people short-change themselves by not spending long enough in a position or by forcing their body into the stretch. It is important that we work with the central nervous system and not against it.

The average stretch should last between 1 and 2 minutes with different stages of intensity. Let me explain; when we first begin a stretch we need to look for the first point of resistance, this is usually a lot earlier than people expect it to be. This is when we first feel that the tension in the muscle wants to resist the direction that we are moving in.

## **Perceived Pain Scale (PPS)**

The perceived pain scale (PPS) allows us to gauge the level of intensity of a given stretch, with 0 being no stretch at all and 10 feeling like the muscle is at its limit.

The first point in a stretch will usually feel like a 6 on the PPS. You will hold this for between 15-30 seconds as the central nervous system begins to recognise it as safe and controlled. During this time you should feel the intensity begin to decrease, usually the 6 will drop a couple of points down to a 4, it is at this stage that we can progress the stretch further.

Take a deep breath in, as you exhale move further into the stretch until you reach a 6 on the PPS. You will then repeat the method above until that has dropped 2 or more points on the PPS.

At this stage you can progress the stretch further, to a 7 on the PPS. Continuing to repeat this process until either no further gain in range of movement is achieved, the number on the PPS is not reducing or more than 3 minutes has elapsed.

**At no point should you go above an 8 on the PPS.**

# Muscle Energy Technique

Throughout the book you will come across techniques that incorporate Muscle Energy Technique (MET). MET is an advanced technique used by soft tissue therapists and other healthcare professionals that can be adapted for self-use during stretching and mobilisation.

MET works with the nervous system and takes advantage of the reflex produced by a sustained contraction of a muscle. Golgi Tendon Organs (GTOs) are the body's built-in load sensors. After a muscle has been in contraction for a short time, the GTOs send a signal via the central nervous system (CNS) for the muscle to relax.

In MET we contract the muscle before we stretch it, causing the GTOs to send a signal to the brain via the CNS, allowing a greater stretch of the muscle once the contraction is released. This way of working with the CNS ensures less resistance when stretching and improved long term results.

## Reciprocal Inhibition

You may have heard of the terms **agonist** and **antagonist**. An antagonist is the opposite muscle to the muscle we are trying to stretch, the agonist.

When we contract a muscle – the agonist, a signal is sent via our CNS to relax the antagonist muscle. This is a built-in function of the CNS to allow fluid, unrestricted movement and we can use it to our advantage when trying to increase our range of movement and overall mobility through stretching.

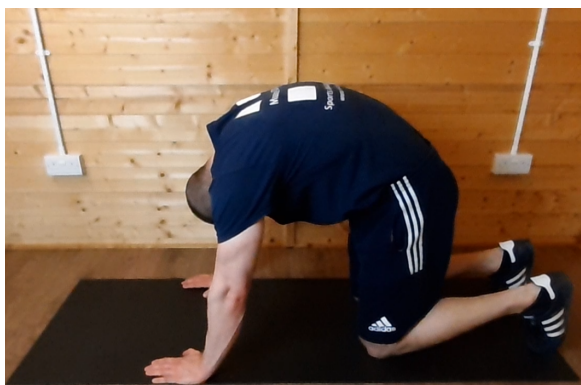
Throughout this book, you will see reciprocal inhibition used during a stretch. This will take the form of contracting the antagonist eg. quadriceps muscles while stretching the agonist eg. hamstring muscles.

# Back & Neck

# Cat/Cow

Cat/cow gets its name from the two positions we find ourselves in during the movement. It focuses on spinal flexion and extension and has many applications – from getting things moving first thing in the morning, to loosening up after a long time stuck in one position.

In the 'cat' position we should be pushing the mid-back towards the ceiling – imagine there is a string connecting your mid-back to the ceiling and it's being pulled up towards it.



In the 'cow' position the sternum goes towards the floor as we arch our backs into the opposite direction. The string is now connecting our sternum to the floor and it's being pulled towards it.



There are 4 separate things to remember when doing this movement, let's take a look at them one by one:

## **Arch your back**

Your vertebrae were made to move, try pushing a little bit further into these positions over time.

## **Tilt your pelvis**

In the 'cat' you will need to tuck your pelvis in, flattening out your lower back. In the 'cow' you will need to arch your lower back, sticking your bottom out.

## **Move your scapula**

Squeeze them together in 'cow' and let them move around your ribcage in 'cat'. Pushing through the floor with your hands and keeping your elbows straight can help.

## **Don't forget your neck**

Your neck is a part of your spine too. Tuck your chin into your chest in 'cat' and look up to the ceiling in 'cow'.

When first performing cat/cow, spend up to 10 seconds in each position for the first few repetitions before increasing your speed. At full speed, cat/cow should be in time with your breathing and no faster.

## Breathing

While we are trying to mobilise our spines and get the vertebrae and discs moving more freely, we can use breathing technique to our advantage.

A large part of your thorax is occupied by your lungs and diaphragm. As the diaphragm contracts it moves downwards, creating a vacuum inside the lungs and drawing air in. As the lungs fill with air, the ribcage needs to expand to accommodate this change in volume.

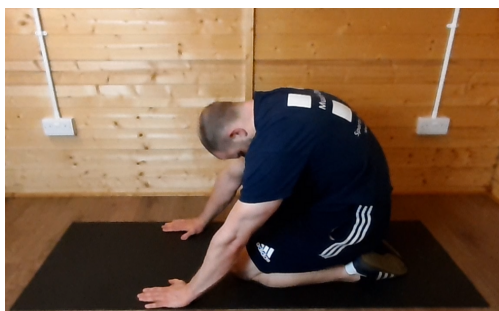
Depending on our position while all of this happens we can use it to our advantage, effectively using the expansion of our lungs to help mobilise our ribs and thoracic spine.

### Inhale on 'cat'

### And exhale on 'cow'

You can also try this the opposite way around for a variation on the technique. Use this technique after at least 20 reps of the standard cat/cow so that you are able to match your breathing to the technique naturally and without interruption.

For even more emphasis on your thoracic spine, sit back on to your heels and follow the instructions listed above. You will not be able to tilt your pelvis as much and the shoulder blade movement will also feel more subtle but your neck and especially mid-back will feel a difference that some prefer.



# Spine rotation

## Hands & Knees

Although we may think we have good range of motion through rotation of the spine, sometimes the hips can compensate for the lack of mobility, giving the appearance of adequate rotation through the spine when this may not be the case. This movement keeps the hips fixed, allowing you to focus on improving your rotation through the spine only, with little to no compensation through the hips.

Begin on all fours and put one hand behind your head.



Rotate your torso, keeping your other hand and both knees in contact with the floor. Return to the start position and repeat.



Progression

Fully extend your arm as you rotate – this will give you a longer lever and slightly more momentum.



Make sure you are in control of the movement throughout and do not rely on momentum only.

# Sphinx

With its name deriving from the Great Sphinx of Giza, the Sphinx stretches the abdominals whilst mobilising the spine into extension.

If you have had any previous lower back injuries, take this one slowly at first. Work your way through the progressions as shown and, if at any point you feel pain, stop or regress to an easier position.

Begin face-down on the floor. Bring your hands level with your face so that your fingers are pointing towards each other and push the floor away, lifting your upper body off the floor.



## Progression 1

Rest on your elbows with your forearms together, continue to push through the floor.



### Progression 2

With your hands facing the floor and at shoulder height, push through the floor so that your upper body is lifted completely off the floor.



### **Top tips**

Aim to keep your hips touching the floor, if they are lifting off the floor then you have gone too far.

In progression 2, the further forward your hands are, the easier the movement will be. Make it more challenging by bringing your hands closer to your waist.

# Child's Pose

Child's pose takes us into flexion of the shoulders, spine, hips and knees – the opposite of the Sphinx and very effective when used together.

Begin on your hands and knees with your hands a little further forward than your head.



Sit down onto your heels while keeping your hands in contact with the floor. As your body tries to pull your hands away, grip the floor and use this to further stretch your back and shoulders, tucking your chin into your chest.



Progression 1Child's Pose around the clock

So far, this is the most effective zero-equipment stretch I have found for the latissimus dorsi and quadratus lumborum, 2 notoriously tight muscles of the back.

Begin in child's pose and walk your hands 'around the clock'. If you are stretching your left-side then the focus needs to be on your left arm - your left hand should maintain contact with the floor as it walks around to 3 o'clock. When you reach a point where you are feeling a moderate stretch, hold it for 20-30 seconds.



Then, if you are able to, try to reach further in the direction your left hand is pointing. After another 20-30 seconds, slowly walk your hand back to the start position and repeat on the other side.

## Progression 2

### Dynamic Child's Pose into Sphinx

Begin in the Sphinx position



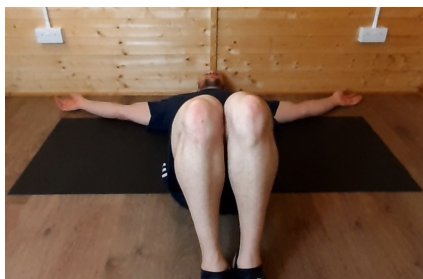
After a few seconds, move fluidly into Child's Pose



# Spine Twists

As we have seen previously, we can fix our pelvis to encourage rotation of the thoracic spine. We can also fix our shoulders in place to encourage rotation of the lumbar spine.

Begin on your back with arms outstretched to your sides – this will help to prevent your shoulders from lifting off the ground to compensate for restrictions in the lumbar spine and hips.



Bend your knees, keeping both legs touching each other and your feet planted on the floor. Slowly allow your legs to fall to one side until the outside of that leg makes full contact with the floor. Bring the legs back to the start position and then repeat on the opposite side.



This should be a controlled movement where you will be able to pause and hold your position at any time if needed.

Try to keep your shoulders pinned to the floor throughout the movement.

Progression 1

Lift your feet up off the floor, keeping a 90° angle at your hips and knees. Slowly allow your legs to drop down to one side until the outside of your leg touches the floor. Bring the legs back to the start position and repeat on the opposite side.

Progression 2

Extend your knees so that your legs are straight with a 90° angle at the hips. Slowly allow your legs to drop down to one side until the outside of your leg touches the floor. Bring the legs back to the start position and repeat on the opposite side.



As you work through the progressions, you may find that this turns into what feels like a core exercise. The longer lever and increased weight of fully extended legs will certainly be more difficult to return to the start position and the improvements you will make in strength in spinal rotation will contribute to a happy, healthy spine.

# Open-Books

So called because of the resemblance to opening a book, Open-Books are another way of fixing the hips while we try to improve on rotation of the thoracic spine. They also have the benefit of mobilising the scapula.

Begin by lying on your side with your knees and hips at 90°



Try to reach as far as you can with your top arm – in doing so, you will begin to protract the scapula, moving it around the side of your ribcage.



When you have reached as far as you are able, extend the arm out in the opposite direction, reaching away from the opposite arm and allow your back to make contact with the floor.



Return to the start position and repeat, aiming to reach a little further with each repetition.

# Thread the Needle

A movement that aims to mobilise the ribs as well as the thoracic spine, hips and shoulders.

Begin on your hands and knees.



“Thread’ one arm through the gap created by the leg and arm on the opposite side. Reach as far as you can in that direction, aiming to touch the floor with your shoulder.



Return to the start position on your hands and knees.

Progression

Repeat the movement as above but instead of returning to the start position, continue rotating round so that your chest is facing away.

Extend your arm and bring your palm to face the ceiling.



In one fluid but controlled movement, return in the direction you came and thread the needle, repeating the original movement.

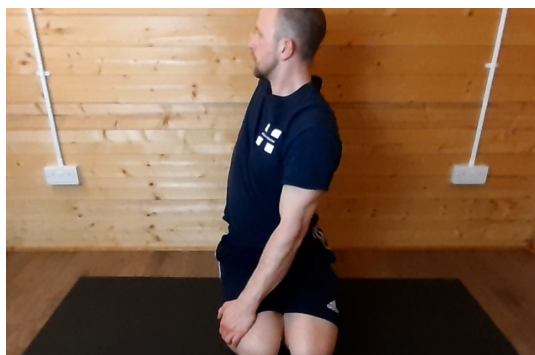
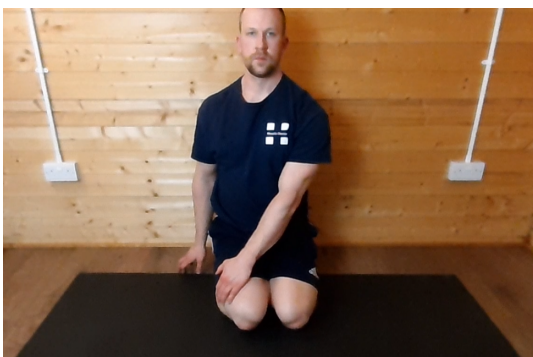


# Spine Rotation

## Kneeling

An alternative method of rotating the spine whilst keeping the hips fixed – cancelling out any compensation from the hips.

Kneel on the floor, sitting on your heels, placing your left hand on the outside of your opposite thigh, just above the knee.



Bring your right arm up in front of you in a straight line, as your hand rises above your head begin to rotate your upper body around to the same side and reach back.

Return the arm to its starting position as you rotate back to face forward.

As you begin to get used to the movement, use your left hand to give an additional pull on your right leg, enabling you to rotate further.

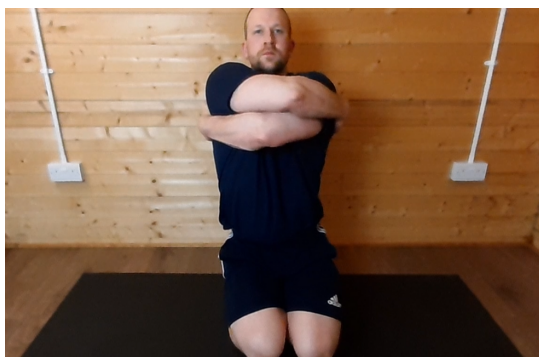
# Spine Rotation

## Kneeling 2

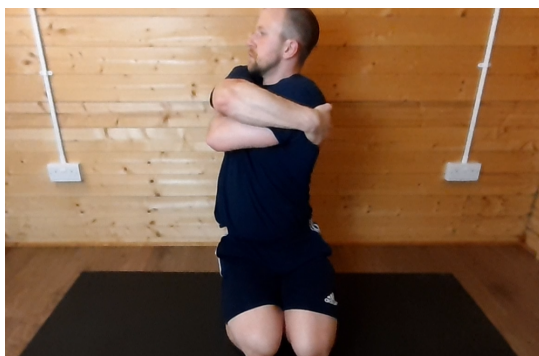
A more dynamic method of mobilising the thoracic spine into rotation

Kneel on the floor, sitting on your heels.

Wrap your arms around your front, giving yourself a big hug. Aim to hold on to your opposite shoulders.



Begin to rotate your upper body in one direction, back, and then in the opposite direction.



Begin with small movements and progress to increase your range of motion as you go. Try to actively rotate into the end of the range of motion and not to rely on momentum.

## Rotate & Reach

Here, we are not only fixing the hips as we rotate the spine but allowing them to face slightly away from the direction we are rotating, giving an extra edge to this stretch when combined with the momentum and longer lever of the outstretched arm.

Begin by kneeling on your left knee with your right foot planted in front of you.



Place your left hand on the outside of your right thigh, just above your knee and begin to rotate around towards your right side with your arm outstretched.



Return to the start position and repeat.

Aim to slightly increase your range as you increase the repetitions as long as it feels comfortable to do so. Use your left arm to pull through the right leg at the end of the rotation to gain that last few extra degrees of rotation if you need to.

ProgressionRotate & Reach with flexion and extension

Set yourself up in the same position as the Rotate & Reach. As you rotate to face behind you, lean back simultaneously.



Then, as you rotate back to the start position, continue to rotate past your start position and simultaneously bend forward, aiming to touch the ground in front of you.



Return to the start position and repeat.

# Neck Stretch

## Using Muscle Energy Technique

The neck can be a sensitive area and, in many individuals, prone to injury and general discomfort. Due to its sensitive nature it can sometimes react unfavourably to stretches which is why I prefer to use Muscle Energy Technique wherever possible. In doing so, we are working with the Central Nervous System and not against it.

Begin by sitting down and placing your left hand under your left buttock. This will keep your shoulder in one place and prevent any compensation occurring during the stretch.

Side-bend your head to the right until you feel a medium-stretch on the left-side of your neck. When you reach this point, hold that position for 15-20 seconds or until you feel the stretch sensation beginning to decrease.



Bring your right arm over your head and rest your hand on the side of your head. Begin to push your head into your fingers, using your fingers to resist your head. Use approximately 20% of your strength and match the resistance with your hand so that your head stays in the same position and doesn't move.



After 8 seconds, take a deep breath in, breathe out and relax your neck muscles. As you relax, allow your head to move further into the stretch. It should yield easily and the range of motion should increase with the same sensation of a stretch as it did in the first position and no more.



Hold this position and repeat twice more or until no further increase in range of motion is achieved.

Slowly return your head to a neutral position and repeat on the opposite side.

Do not force your neck into a stretch using this technique. The key is working with your nervous system and not trying to pull it into submission. Take your time, breathe deeply and do not go above a 6 out of 10.

# Neural Floss

## Median Nerve

When we think of soft tissue, most of us think of muscles, tendons and ligaments but nerves often get forgotten. They come under the banner of soft tissue and, like all other soft tissue, are subject to tightness and dysfunction.

Our nerves exit our spinal cord between the vertebrae and either innervate or provide a sensory function to every part of our body. It is helpful to understand this when using any kind of neural floss technique. A neural floss will involve the movement of multiple joints simultaneously with the aim of mobilising the nerves that cross those joints.

The median nerve exits the spinal cord, passes through the brachial plexus, along the inside of the arm and innervates the thumb, index and middle fingers. So, to 'floss' this nerve, we need to move the neck and wrist, keeping the shoulder and elbow in a static and extended position.

Begin with your arm out to the side, parallel with the floor and palm facing the ceiling. Extend your wrist so your palm is facing away and fingers pointing to the floor. Tilt your head towards the arm that is extended.



Begin to move your wrist and your head simultaneously in the same direction so that your palm is coming up to face your head as your head moves away from it.



Continue this movement slowly and intentionally so that your head follows your palm and vice-versa.

# Chin Tucks

Whether it's spending hours working at a desk or too much time on our phones, we often find ourselves in a forward-head posture. This type of posture can cause many issues and lead to chronic neck pain.

Many people will have heard the statistic that your head weighs the equivalent of an extra 10lbs for every inch it is further forward than it should be, but the uniquely detrimental thing about this position is the strain it puts on the different ends of the neck. At the bottom of the neck, where the cervical spine connects to the thoracic spine, the neck is in flexion, meaning it's leaning forward. To compensate for this and to allow level-vision, the top vertebrae in the neck need to be in extension.

Chin tucks mobilise both ends of the neck in the opposite directions to this, making it doubly effective and a staple movement when it comes to neck-care.

Place your index finger on your chin, about an inch below your bottom lip. Use it to tuck your chin into your neck, hold this for a few seconds then reset and start again.



Top tip - If you're having trouble feeling this then try and give yourself a double-chin!

Progression

When you're in the chin-tuck position, slowly bring your head forward, looking down and tucking your chin into your chest with your mouth closed. Hold this position for a few seconds, reset, and start again.



# Neck Rotation

Sounds fairly straight-forward... but how often do we actually use all of the rotation that we've got?

Remember, if you don't use it, you'll lose it!

Begin with a neutral neck and head facing forwards.

Rotate your neck to the right. Spend a couple of seconds in that position actively contracting the neck muscles that are working to hold it.



Return to neutral and repeat on the opposite side.

It is important that we actively try to push into more rotation and don't just shake our heads from side-to-side. Start gently and aim to push slightly further into rotation with every repetition. If you feel any pain then stop or regress the movement.

# Scalene Release

Your scalenes are a big group of muscles on the front and sides of your neck.

Sitting at a desk or driving can result in a forward-head posture. This position shortens the scalenes and, if long enough is spent in this position, they can become chronically tight and result in neck pain.

Here, we are using Soft Tissue Release, an advanced technique that gives a more localised and specific stretch. A perfect technique for hard-to-stretch muscles like the scalenes.

Place your right hand just above your left collar bone, using three fingers to push lightly against the skin and into the neck.



If you feel a pulse then change your hand placement until you do not feel it, moving laterally towards the shoulders will help.

Take a deep breath in and hold it as you begin to lean your head away, simultaneously looking up to the ceiling, placing the muscles under a stretch. When you are in a full stretch, exhale whilst maintaining pressure on the scalenes.



Release the pressure and return to the start position.

Repeat this method on both sides, using various different finger placement to target different muscle fibres.

### **Top tip**

The area you will be applying pressure to is commonly referred to as the Thoracic Outlet and is a junction for nerves, veins and arteries, as well as muscles. If you feel a pulse, pain, neural sensations of hot/cold, pins and needles or shooting sensations down your arm then change position. If this continues with different hand placement then stop the exercise and contact your GP.

# Diaphragmatic Breathing

The diaphragm is the primary muscle for inhalation but the majority of people do not use it effectively. When it is not used for long periods of time a few things begin to happen:

- The accessory breathing muscles begin to take on some of the work of the diaphragm, causing them to become over-worked and fatigued. These muscles connect to the ribcage and many of them also connect to the neck. Therefore, faulty breathing patterns and poor use of the diaphragm can indirectly result in neck pain and other, seemingly unrelated, chronic conditions.
- The diaphragm becomes inhibited – the longer it doesn't have a job to do, the lazier the diaphragm becomes. This will make it harder to begin using it properly the longer you leave it.

So, for these reasons it is important that we begin to use our diaphragms more effectively. The good news is you can start today using a few simple steps.

**First of all, take a deep breath in.**

**What did you notice?**

In most cases you will notice your ribcage and perhaps shoulders rise. This is a classic case of 'chest-breathing' and it is very common.

**What happened to your stomach?**

Often, when people 'hold their breath' they will suck their tummy in, did this happen to you?

If you have a toddler or young child around then watch them breathe... You will notice their tummy protruding and their shoulders staying relatively still. Much like posture, breathing is something that we are perfectly proficient at from birth but slowly lose the ability to do effectively as we get older and bad habits set in.

Now, take another deep breath, but before you do, put your hands on your tummy so that you can feel it expanding as you inhale. Take a deep breath in and imagine the air is going into your stomach. Try to keep your shoulders as still as possible throughout.

### **That is diaphragmatic breathing.**

Although it is straight-forward in theory, the reality is that your diaphragm is a muscle and if it has not been used properly for a long time then it may have atrophied. It could also have become hypertonic or 'tight'. This may be the case for you if you struggled to get a deep, satisfying breath using this technique. But the good news is – your diaphragm is a muscle! Meaning it can be trained and strengthened.

Diaphragmatic breathing is one of the most effective weapons we have against chronic pain because, if we can correct our learned bad habits and return to efficient, unconscious use of our diaphragm then we can work towards addressing these issues 24 hours a day, 7 days a week.

Start with 3 sets of 10 deep, diaphragmatic breaths a day, stay consistent and notice the difference.

# Hips & Lower Body

# Hip flexor lunge stretch

Our hip flexors bring the leg up towards the body and when we are in a seated position they are short. If we spend long enough in a seated position they remain in a shortened position for long periods of time, making them feel tight when they are returned to their normal length.

Tight hip flexors can result in low back pain and pelvic dysfunction; the following stretch can be a good remedy for battling those aches and pains or even preventing them from happening in the first place.

If you spend large portions of your day seated then this should be a staple movement in your mobility routine.

Begin with your right foot forward and your hip and knee at 90°.



Lean into your front foot until you feel a stretch in the front of your left hip. Hold this position for 20–30 seconds or until the intensity of the stretch has decreased, then move further into the stretch.



Repeat this up to 3 times.

## Progression 1

Contract your glute on the same side as the hip you are trying to stretch.

The gluteus maximus is the opposite muscle, or antagonist, to the hip flexors. All muscles work in pairs to move a joint, by contracting the glute on the same side as the hip flexor we are trying to stretch we achieve two things:

- 1) We are able to actively extend the hip, increasing the stretch on the hip flexors.
- 2) We are able to work with the central nervous system, producing an inhibitory effect on the hip flexors we are aiming to stretch - effectively 'switching them off' or 'turning the volume down' on them from within. (See page 5 for a more detailed description of Reciprocal Inhibition).

## Progression 2

After at least 30 seconds in the lunge stretch position, side-bend to the opposite side of the hip flexors you are trying to stretch.



We have a few hip flexors but the deepest and most powerful one is the Psoas Major. The Psoas Major connects the lumbar spine to the femur meaning it can be difficult to stretch effectively. Adding a side-bend into the stretch allows us to target the Psoas Major more specifically as we move the spine away from the leg we are stretching.

## Progression 3

Move from the original lunge position into a hamstring stretch for the forward leg.

You may need to alter your front foot position to feel comfortable enough to move fluidly from one position to the other and back again.



When in the hamstring stretch position, ensure that you fully extend your knee and bring your toes up to point towards you by extending your ankle.

# Quadriceps Stretch

Of the four muscles that make up the quadriceps femoris group, or quads, the largest of the four – the rectus femoris – crosses both the knee and the hip joint. Because of this, it is important to make sure our hips are extended and our upper body is upright to ensure a worthwhile and effective stretch.



Begin by standing on one leg and holding the other foot behind your back. Contract the glute on the same side as the quad you are stretching and maintain an upright upper body.

## Alternative 1

Lie on your left side and hold your right leg behind your back. Contract the glute on the same side as the quad you are stretching and maintain an upright upper body.



## Alternative 2

Lie on your front and hold one leg behind your back. Contract the glute on the same side as the quad you are stretching and maintain an upright upper body.



# Calf Stretch

We have 2 muscles that make up our calves: the gastrocnemius and the soleus. Whereas the gastrocnemius crosses the knee as well as the ankle joint, the soleus only crosses the ankle joint. This means that it is far easier to stretch the soleus. To make sure we are effectively targeting the bigger and more powerful gastrocnemius it is important to keep the knee in full extension. This can be helped further by actively contracting your quadriceps.

Stand on a step with your heels hanging over the edge.



Allow your heels to drop down towards the floor.



## Progression

Remove one leg from the step.



By keeping both your tibialis anterior and quadriceps muscles contracted you are inducing a reciprocal inhibition effect (as explained in detail on page 5) as well as actively ensuring full extension at both joints, maximising the stretch.

# Adductors

## Seated

We have 5 adductors of varying sizes. One of these, the Gracilis, crosses both the hip and the knee joint – this stretch will focus on the other 4, effectively eliminating the Gracilis from the stretch due to the knee being flexed.

Begin seated on the floor with the soles of your feet touching each other.



Lean forward until you feel a stretch on the inside of your thighs, up into your groin.

### **Top tips for a better stretch**

Lean your body forwards

Push your elbows down into your knees

Pull up on your ankles – this will help you to drive your ankles down into your knees more effectively

## Progression

### Using Muscle Energy Technique

- Push your knees up and into your elbows for 10 seconds using approximately 20% of your strength.
- Take a deep breath in.
- As you exhale, relax your legs and push further into the stretch using any of the above progressions.
- Hold this new position for 15 seconds and repeat up to 3 times.

## Alternative

### **Squat Prayer Stretch**

Squat against a wall with your toes pointing to 10 and 2. Push your palms together and use your elbows to push your knees out.

### Progression

Move away from the wall to perform the squat prayer stretch unassisted.



# Ankle Mobility

Our ankles are capable of different ranges of movement in different directions but, for many of us, it is rare that we move our ankles through this range regularly. It is this lack of movement that can lead to tightness and restriction in the ankle, this restriction can lead to problems in the knee and hip as compensation patterns begin to develop.

This mobility exercise focuses on plantarflexion and dorsiflexion – the up and down movements of the ankle joint. It will also stretch the soleus specifically, the smaller of the 2 calf muscles, due to the knee being bent throughout the movement.

Position your right foot flat on the floor so that your heel is in full contact with the ground. Your left foot should be slightly behind, acting as a 'kick-stand' to maintain balance.

Begin to bend your knee, lowering your body towards the floor and ensuring full contact between your foot and the floor at all times.



When you reach the point where you cannot continue without your heel leaving the floor, hold this position for up to 20 seconds.

Repeat this up to 3 times, aiming to increase your range of movement each time, repeating on the opposite leg.

## Progression 1

Mobilise the joint by moving slowly into the stretch and then back out after having first been in this position for at least 20 seconds.

## Progression 2

Move your leg slowly and rhythmically from side-to-side whilst maintaining full contact between your heel and the floor at all times. Aim to gradually increase your range of movement over time.



# Adductors

## Kneeling

Unlike the other adductor mobilisation technique on page 45, this method will involve the longest of the 5 adductor muscles – the Gracilis – due to the knee remaining extended throughout the movement.

Kneel on your left knee with your right leg outstretched to your right side. Use your hands on the floor in front of you to support yourself and balance.

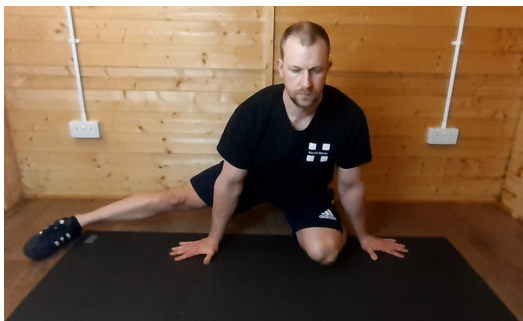


Find a position that is comfortable but that also provides a stretch on the inside of your right leg – you will feel this near your groin but also possibly as far down as the inside of your knee. Hold this position for up to 30 seconds or until the sensation becomes less intense and the feeling of a stretch starts to fade.

Repeat this up to 3 times and repeat on the opposite leg.

### Progression

Slowly lean back into the stretch. Your right foot will stay planted where it has been throughout the stretch but the decreasing angle between your pelvis and the floor will provide the increased stretch.



# TFL Stretch

Nick-named the pocket muscle because of its location at the side of the hip. TFL stands for Tensor Fascia Lata because it 'tenses the lateral fascia'. It is an abductor and flexor of the hip and can often become overused due to weakness in other areas. Because of its various functions it can be difficult to apply a specific stretch to this muscle. I have had some great results with the following methods.

Sit on a chair and cross your right leg over your left so that the outside of your right ankle is in contact with the left leg, just above the knee.

Apply enough pressure down into the right knee, moving it in the direction of the floor, until you feel a stretch in the side of your hip – using the lower leg as a lever to control the stretch at the hip.



Hold this position for up to 20 seconds and repeat up to 3 times or until no further changes in range of movement are gained and repeat on the other leg.

In this position you have more space to move the leg into, expanding the range of movement with which you can use.

# Hamstrings

## Seated

The hamstrings have strong attachment points at the pelvis and behind the knee meaning they act on the hip and knee joints. This stretch will target the hip attachment of the hamstrings specifically but will still provide a good stretch to the hamstrings overall.

Sit on the floor with your right leg positioned out in front of you at 2 o'clock and your left leg crossed with the sole of your left foot in contact with the inside of your right leg.



Lean your body forwards until you feel a stretch in the back of your right leg.



Progression 1

When you have held the position for up to 30 seconds and the stretch sensation has begun to decrease, slowly move deeper into the stretch, aiming to reach your right foot with your right hand and, eventually, to make contact between your chest and your right knee.



Repeat this up to 3 times and then repeat on the opposite leg.

Progression 2

Reach and hold on to your right foot with your left hand. This subtle change in position will not only increase the stretch but it will incorporate the posterior oblique sling – a train of connective tissue that connects the left side of your upper body to the right side of your lower body.



There are 3 cues that we need to keep in mind for an effective stretch of the hamstrings in this position. Let's take a look at them one-by-one:

- 1) Contract your quads – by contracting your quadriceps throughout the movement you will not only ensure the knee joint is in full extension – maximising the stretch on the hamstrings, you will also provide an inhibitory effect on the hamstrings –meaning they will be more receptive to the stretch through receiving an intrinsic message from the central nervous system to relax.
- 2) Dorsiflex your ankle – or tilt your ankle up, pointing your toes up towards your head. This will put the calves into a stretch and include the lower part of your posterior chain in the movement.
- 3) Touch the floor with the back of your knee – although you may not be able to actually touch the floor, just the intention of this action alone will improve the stretch.

# Gluteus Maximus

## Seated

Gluteus maximus is a muscle that commonly tightens up in many people, particularly those of us that spend long periods of time in a seated position.

People often find it difficult to truly target their glutes in a stretch – to stretch a muscle, it can help to know what that muscle does, its action.

When we know this, all we have to do is the opposite movement to stretch it.

Gluteus Maximus extends, abducts and externally rotates the hip. The reason this stretch is so effective is because it puts us in a position where we flex, adduct and internally rotate the hip, the exact opposite to the glute's actions.

Begin seated on the floor with your left leg out straight and bring your right leg across your body, aiming to bring your knee and inner thigh as close as possible to the left side of your chest. Then, hug your right leg with your left arm.



Hold this position for at least 30 seconds before repeating on the opposite side.

Progression 1

When you are in the full stretch position, slowly bend your neck forwards, bringing your nose towards your right hip crease.



Hold this position for up to 30 seconds before returning your head to neutral then resetting and attempting the stretch again. Repeat this up to 3 times.

Progression 2Neural Floss

Repeat the steps of Progression 1 but move fluidly in and out of the stretch. In doing so you will produce a neural floss effect with a relieving stretch of the spinal cord and posterior fascia.

You may feel this stretch all the way from the top of your neck down to the glute that is being stretched and the whole space in between – that is normal and this sensation is your fascia and spinal cord being mobilised and stretched. If you feel any pain, pins & needles or numbness then you should stop immediately.

# Gluteus Maximus

## Supine

Because the glutes are the largest muscle in the body it is important that we target them from a few different angles. This stretch involves a degree of spinal rotation but gluteus maximus is the main target – you should feel this stretch at the side and back of your hips primarily, but may also feel some relief in your lower back.

Lie on your back and bring your right leg across your body so that the inside of your right foot is touching the floor to your left and there is a 90° angle at your hip and knee, keeping your arms outstretched to the sides.



Hold this position for up to 30 seconds, allowing gravity to subtly pull your knee in the direction of the floor, apply a stretching effect to your right hip. Keep contact between your right shoulder and the floor at all times and repeat on the opposite side.

## Progression

### Using Muscle Energy Technique

After at least 30 seconds in the position above, bring your left hand so that it is resting on the outside of your right knee.



Resist this small force by pushing your knee lightly up against it. This small movement will contract the muscles that you have just been stretching.

After 10 seconds, take a deep breath in, as you exhale allow the weight of your hand to bring your knee closer to the floor without forcing it.



Repeat this up to 3 times or until no further progress is made.

# Sciatic Nerve Neural Floss

This technique has multiple applications;

- 1) This is a great movement for mobilising the sciatic nerve – the ankle and knee both being actively brought into extension means all of the soft tissue from the hip down is mobilised – this includes nerves.
- 2) It stretches the hamstrings with a focus on the distal hamstrings insertion just below and behind the knee.
- 3) It also targets the calves, making this a great movement for general posterior chain mobilisation.

Lie on your back, holding your right leg behind the lower part of your thigh, just above your knee.



Point your toes and slowly extend your knee until you feel a stretch sensation.



Return to the start position and repeat, aiming to progressively push further into the stretch as you continue.

## Progression 1

Begin as before and extend your knee with your toes pointed.

When your knee is extended as far as is comfortable, extend your ankle, bringing your toes to point towards your head.



Progression 2

Repeat as before but keep your ankle extended, and toes pointing towards your head, throughout the movement.



Being a neural floss makes this a dynamic movement, meaning this is a continuous, active motion. Begin at the first stage for 3 sets of 10 repetitions every day on each leg and gradually work your way through the progressions as things start to loosen up.

## 90/90

Our hips are capable of a great deal of rotation but, as we get older and stop using this range, we lose it and restrictions can develop inside the joint capsule as well as the surrounding muscles. Compensations can occur elsewhere because of this, often leading to hip and back pain.

This is one of my favourite dynamic movements for increasing hip mobility in rotation.

Begin seated on the floor with the outside of your right leg and the inside of your left leg in contact with the floor.



Lean over your right leg with your left arm reaching out in the direction that your right knee is pointing.



Spend a couple of seconds in this position, acclimatising and ensuring a good stretch.

Return to the start position and reach across to touch your left knee with your right hand.



Repeat these movements in a fluid motion, gradually increasing the speed as you become more comfortable with the stretch.

Begin with 3 sets of 10 repetitions every day on each side and aim to gradually increase your range of movement in the days and weeks that follow.

# Quadriceps Release with a Foam Roller

This movement uses an advanced technique called Soft Tissue Release.

This is the method of creating a temporary, new origin of the target muscle that enables us to stretch the muscle more effectively and to focus on specific areas of tightness within the muscle.

Position yourself face-down with the foam roller under your thigh, just above the knee.



Bring your heel towards your backside – flexing the knee.

Return to the start position, move the foam roller slightly further up your thigh and repeat.





Continue this pattern, gradually moving the foam roller further up your thigh until you do not feel any further stretch, repeating on the opposite leg.

### **Top tips for a better stretch**

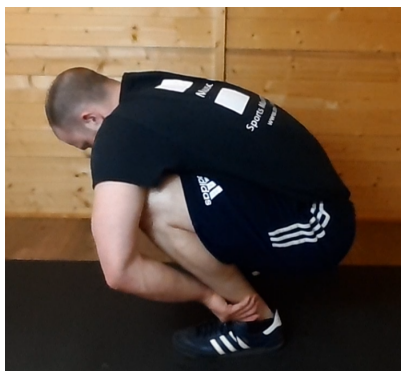
As well as moving the foam roller up your leg, try positioning it slightly to the left or the right – we have 4 quadriceps muscles, two in the centre, and one on either side – depending on where you hold your tension you may feel a better stretch by targeting certain parts of the muscle specifically.

If the stretch or pressure on your quad is too intense then try a softer foam roller. Equally, if it is too easy then try a firmer one.

# Squat to Stand

A quick, dynamic and active stretch for the hamstrings.

Bend forward with soft knees and hold on to your ankles, allowing yourself to drop down into a squat.



Whilst keeping hold of your ankles, straighten both of your legs so that your legs are fully extended. If you feel too much resistance to fully extend your legs then stop at a point that is manageable.

Continue this movement fluidly, aiming to extend your legs slightly more with each repetition.

Begin with 3 sets of 10 repetitions every day, aiming to fully extend your legs over time.

# Internal Hip Rotation

This exercises internally rotates the hips. In doing so it also stretches the external rotators of the hips.

The external rotators of the hips such as the piriformis and glute max can become tight and restricted and, occasionally, unresponsive to passive treatment.

In this case, active movement using the opposite muscles – the internal rotators – can have a profound effect.

Begin seated on a chair with a foam roller between your knees.



Pinning the foam roller in place with your knees, bring your ankles away from each other, internally rotating the hips.



## Top tips

Aim to increase your range of movement over time.

This can also be used as an assessment for tight external hip rotators – look for asymmetry in the range of movement of one leg compared to the other.

## Internal Hip Rotation 2

Internal hip rotation is a commonly restricted plane of movement for many people and it is so important to maintain that I have included two separate exercises to help you improve it.

Position yourself on hands and knees on the floor and bring your left leg out to the side so that your lower leg is pointing between  $45^\circ$  and  $90^\circ$  away from the rest of your body and the inside of your left foot is in contact with the ground.

Lift your foot off the ground as far as you are able, while the knee remains in contact with the ground.



Hold this position for 1-2 seconds and return to the start position. repeat on the opposite leg and begin with 3 sets of 10 repetitions on each leg aiming to improve range of movement and control of the movement over time

# Fire Hydrants

An all-round hip rotation mobilisation that uses the activation of the external rotators to stretch the internal rotators of the hip, and vice versa.

## External rotation

Begin on your hands and knees.

Bring your right leg forward,  
into hip flexion.



Then out to the outside,  
into abduction.



Now, bring the leg back,  
into extension.



And finally, back down to the start  
position, into adduction.

This movement, performed fluidly, will draw a continuous circle with the knee.

For an Internal rotation mobilisation, repeat the steps above in reverse order.

# Frog Stretch

Position yourself on hands and knees, with knees apart, pointing to 10 and 2.



Lean back onto your heels, feeling the stretch in your groin.



Return to the start position and repeat.

Aim for fluid movement in and out of the stretch whilst pushing further into the stretch with each repetition.

Begin with 3 sets of 10 repetitions every day.

# Shoulders & Arms

# Rotator Cuff

## Infraspinatus

As well as acting like reins on a horse for keeping the arm in its socket, the rotator cuff is responsible for rotating the arm internally and externally.

We have two externally rotating muscles in the rotator cuff, the Infraspinatus and Teres Minor and it is these that we are targeting in this movement.

Place your right hand behind your back. Ensure the backs of your fingers are in contact with your hip on the same side, making a big triangle of space out of the gap between your arm and your body. This will provide you with the long lever needed to effectively stretch these muscles.

Bring your elbow forwards until you feel a stretch in the back of your shoulder.

After at least 20 seconds, push further into the stretch. If you are able to reach your right elbow with your left arm then this will make for an easier and more effective stretch.



Progression 1

Sit on the floor with your right hand behind your back as shown, then bring your elbow forwards until you feel a stretch in the back of your shoulder.



After holding this position for at least 20 seconds, use your right leg to assist the arm into a further stretch.

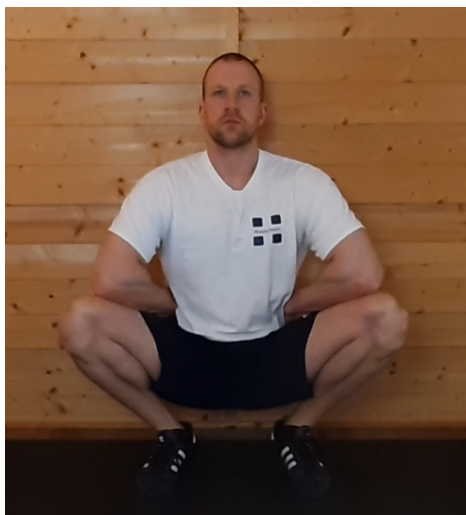


Progression 2

Squat against a wall with knees as wide as possible.

Place both hands behind your back, ensuring a big triangle of space between the arms and your side, and hook your elbows around the inside of your knees.

Slowly bring your knees together until you feel a stretch sensation in the backs of both shoulders. Hold this position for at least 20 seconds.



Slowly bring your knees together again until you feel an increase in stretch. Repeat the above steps up to 3 times, until you are either unable to stretch further or until your elbows touch.

# Pectorals

Often, in clinic, people will present with pain in the mid-back, between the shoulder blades. If you've been in this position before then you will know that the instinct is to treat the muscles of the back, where the pain is, but one of the most common causes of this type of pain is tight pectorals.

It comes back to the desk-bound posture. As humans, we're not designed to spend so long in this position, whether it is from driving, working at a desk or just slumped in front of the TV or our phones for long periods. The shoulders roll forwards, shortening the pectorals, causing them to become short and tight.

If you have been experiencing this mid-back ache and you have been spending lots of time in this position then try this pec stretch.

Position yourself in a doorway or against the edge of a wall with your elbow at a right angle and your forearm and elbow against the wall with your upper arm clear of it.



Begin to lean your body through the doorway, maintaining square shoulders, so that you feel a stretch in the upper chest and armpit area. This position will target the pectoralis minor but will also have an effect on pectoralis major.



Hold this position for between 20–30 seconds before moving deeper into the stretch. Repeat up to 3 times or until no further stretch is achieved.

#### Alternative

Extend the elbow so that your forearm is now parallel to the floor.

This will target different fibres of the pectorals with more of a focus on pectoralis major.

# Floor Angels

Have you ever made a snow angel? If you haven't then you may have seen others do it before – where you lie in the snow and move your arms and legs up and down and side to side to create what looks like an angel on the floor.

Well, that's where these get their name from and they are one of the most effective active shoulder mobilisations I have in my arsenal.

Begin lying on the floor with your arms out to your side and elbows bent to 90°



Raise your arms out and above your head in a shoulder press motion.



Return to the start position and repeat – begin with 3 sets of 10 repetitions.

Important – ensure that as much of your arm remains in contact with the floor as possible. As soon as you begin to feel like your elbows want to lift up then stop there and return to the start position. You should aim to improve on this range of movement over time with the eventual goal of being able to fully extend your arms whilst maintaining contact between your arms and the floor throughout the entire movement.

Progression 1

Extend your elbows so that your arms are straight and repeat the movement as instructed above.

Progression 2

Place a foam roller down the length of your spine when performing the previous two versions of this movement – this places the shoulders in extension as gravity fixes them to the floor and you will benefit from an increased pectoral stretch and greater potential overall range of movement. A rolled-up towel can be used if the roller is a step too far.



# Wall Angels

Sit up against a wall, bring your arms out to the side and bend your elbows - repeat the movement as instructed when lying on your back.



## Progression

Bring your arms out to the side and extend your elbows so that the entire length of your arm is parallel to the floor.



Warning - if you have a previous history of shoulder impingement or injuries such as dislocation, bursitis or tendinitis then be careful when bringing your arms into full abduction. The joint space is at its narrowest in this position and impingement is more likely - if you feel a pinch or discomfort at the top end of the movement then don't go quite so far.

# Arm Rotation

A lack of sufficient arm rotation can affect a range of things from the shoulder itself to the scapula and even the back and neck. Many of us have restricted rotation in one, if not both, directions.

This movement can also be used as an assessment to check for restriction in arm rotation as well as asymmetry between the two arms.

Begin lying on your back with your elbows flexed to  $90^\circ$ , the backs of your arms touching the floor and your forearms pointing towards the ceiling.

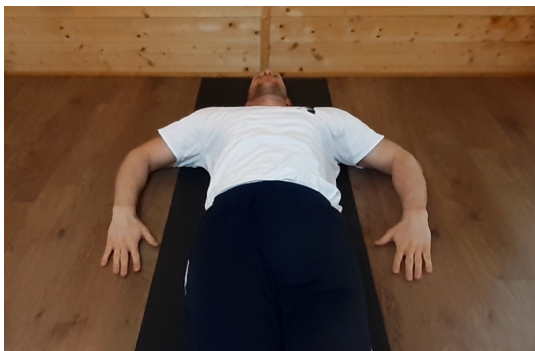


Keeping the upper arm fixed in position, rotate the arms externally until either the back of your forearm touches the floor or you feel tightness restricting the movement.



Hold this position for up to 10 seconds.

Rotate the arms back in the opposite direction until either the inside of your forearms make contact with the floor or you feel tightness restricting the movement.



Hold this position for up to 10 seconds.

Repeat the movement, spending gradually less time in each position as it becomes more fluid.

Aim to increase your range of movement steadily as you repeat it.

Begin with 3 sets of 10 repetitions.

### Progression 1

Rotate the arms in opposite directions, taking sufficient time to ensure an active stretch at each end of the movement.



Progression 2

Place a foam roller down the length of your spine when performing the previous 2 versions of this movement – it may not be possible to maintain full contact between your upper arms and the floor using this method.

A rolled-up towel can be used if the roller is a step too far.



# Biceps

Bicep tightness is often associated with pectoral tightness, and pectoral tightness is often associated with back and neck pain. Consequently, I will often treat biceps when treating tight pectorals that are the cause of pain elsewhere, whether that is neck, shoulder or back pain.

This bicep stretch is a nice addition to any pectoral or back mobility work you are already doing.

Position your hand against a doorway or wall with your elbow extended and your thumb pointing down towards the ground.



Push into the stretch until you feel a stretch in your bicep. Hold this position for between 15-30 seconds before moving further into the stretch.

Ensure your shoulder position is maintained for a fully effective stretch.

# Triceps/Latissimus Dorsi

This stretch targets both the triceps and the latissimus dorsi and is a great way of opening up the chest and shoulders.

Hold a towel or broomstick in your right hand and bring your arm overhead and behind your neck, like you have an itch in your mid-upper back.

Bring your left hand down and around, behind your back, grasping the lower end of the towel or broomstick.

Pull the towel or broomstick down until you feel a stretch sensation in the back of your arm or shoulder.



Ensure your shoulder and upper arm are as far behind your head as you are able to get them.

Progression 1  
Using Muscle Energy Technique

Resist the downwards pull of your left arm by matching the resistance with your right - using the muscles that we are targeting with the stretch. Hold this contraction for 10 seconds and take a deep breath in, as you exhale, relax the muscles you have been using to resist the movement and use your left arm to gradually increase the stretch further.

Repeat this up to 3 times or until no further increase in range of movement is achieved.

Progression 2

Use your head to push backwards into the upper arm and shoulder of the arm that is being stretched. This will ensure full abduction and flexion of the shoulder joint, maximising the stretch.



# Rotator Cuff

## Subscapularis

We have 3 main internal rotators of the arm, the big latissimus dorsi and pectorals and the smaller subscapularis – the only internal rotator of the rotator cuff.

Because of the dominance of the other two larger muscles, the subscapularis can be difficult to isolate.

This stretch can be tricky to master but, when you do, it is unique in its ability to provide an effective stretch to the subscapularis muscle.

Begin with your right arm out to the side and a 90° bend at the elbow, so that your forearm is pointing up towards the ceiling.

Hold a broomstick in between your thumb and forefinger, make sure the broomstick is in line with your forearm – this will provide the long lever we need to bring the arm into passive external rotation.



Use your other hand to hold on to the end of the stick and slowly begin to pull it forwards. Hold the position when you feel a stretch deep inside the shoulder.



Hold this stretch for between 20–30 seconds before attempting to stretch further.

Progression  
Using Muscle Energy Technique

Resist the pull of the left hand using your right arm - matching the pressure applied so that the stick does not move. Hold this for 10 seconds before taking a deep breath in.



As you exhale, relax your right arm and use your left arm to stretch it further.

Stop at the point where you feel a moderate stretch and hold for 20 seconds.

Repeat this process up to 3 times or until you are unable to achieve any further stretch.

# Wrist Flexors

Tight wrist flexors can lead to chronic conditions such as golfers and tennis elbow and can even contribute towards carpal tunnel syndrome.

You can use this technique not only for rehabilitating these conditions but also as prehab to prevent these from occurring in the first place.

Begin on your hands and knees with your hands flat on the floor, approximately 6 inches away from your knees.



Slowly lean forwards until you feel a stretch on the inside of your forearms.

## Top tips

If you don't feel much of a stretch, either lean further forward or move on to the progression.

Also, make sure your palms are fixed, flat on the floor, do not allow your palms to be lifted up off the floor.

Rotate your wrists 180° so that your fingers are pointing in towards your knees and move your hands forward so that they are just above shoulder height.



This time, lean backwards until you feel a stretch on the inside of your forearms.



Hold this stretch for between 20-30 seconds before attempting to stretch further. Repeat this up to 3 times or until no further stretch is achieved.

# Wall Circles

A dynamic movement to get the synovial fluid flowing within the shoulder joint that can be used to gauge improvement in arm and shoulder mobility with consistent use.

Begin on your knees, just short of arms length from the wall. Bring your right arm into a circle by lifting it up in front of you in a straight line and rotating back and around whilst keeping your arm as close as possible to the mid-line of your body.



Repeat this 10 times before reversing the direction of the rotations for another 10 repetitions, repeating on the opposite arm.



### Progression

Position yourself approximately 18 inches away from a wall and repeat the movement as described above. Draw circles on the wall with your hand through the movement of your arm and shoulder.

Gradually move closer to the wall until you are unable to perform a full rotation.

Aim to improve on this consistently over time, with the goal being to complete full repetitions with your whole arm touching the wall.

Begin with 10 repetitions on each arm for 3 sets of each.

# Shoulder Extension

The shoulder joint is the most versatile in the entire body thanks to the shallow socket that the ball of the humerus sits in.

However, it is not often that most of us use the full range of movement available and if we don't use it, eventually, we will lose it!

One of the movements that is not used as often is shoulder extension. Active shoulder extension not only mobilises the flexors of the shoulders but also encourages more range of movement into extension – improving overall shoulder mobility on 2 fronts.

Stand with a broomstick behind your back, holding one end in each hand, slightly wider than shoulder-width apart and palms facing behind you.



Use your arms to bring the broomstick as far out behind you as possible.



Hold this position for 1 second before returning to the start.

Repeat this for 3 sets of 10 repetitions, aiming to increase your range of movement over time and to gain control over the movement throughout the entire range.

# Overhead Shoulder Mobility

Lie on your back, holding a broomstick out in front of you with your hands as wide as the broomstick will allow and palms facing away.



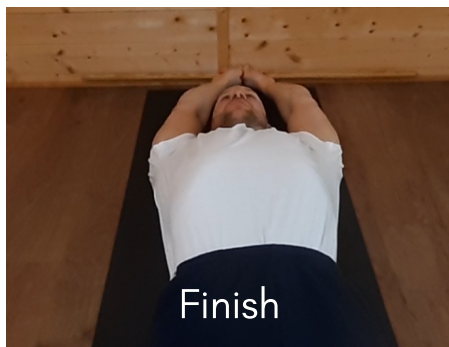
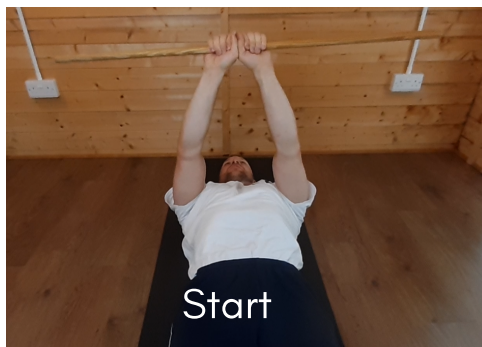
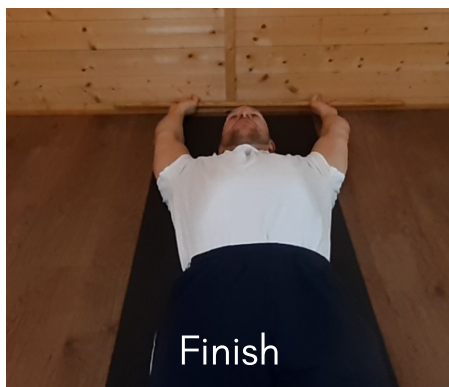
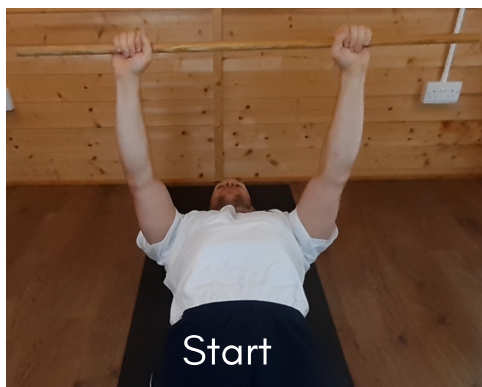
Bring the broomstick overhead until the entire length of your arms make contact with the floor.



Return to the start position.

Progression

Move your hands a hand-width closer together on each side and repeat the movement. Continue to progress in this way until you are unable to fully extend your arms so that they make contact with the floor.



Return your hands to the last place you were able to complete a full rep and work in this range of movement for 3 sets of 10.

# Overhead Shoulder Mobility 2

Begin by holding a broomstick in front of you with your palms facing towards you and your hands as wide as the broom stick will allow.



Bring your right arm out in front of you and up towards the ceiling, continue in a circular motion until the broomstick is behind your back.



Return to the start position by making this movement in reverse and repeat for 10 repetitions.

Repeat this movement with your left arm as described above.

Begin with 3 sets of 10 repetitions each way with both arms.

Progression 1

Begin by holding a broomstick out in front of you with your palms facing in and your hands as wide as the broomstick will allow.

Bring the stick up in front of you so that it remains parallel to the floor until it is above your head.



Continue moving your arms in a circular motion so that the broomstick finishes behind your back with your arms by your side.



Make this movement in reverse so that the broomstick returns to its start position.

Repeat this for 3 sets of 10 repetitions.

Progression 2

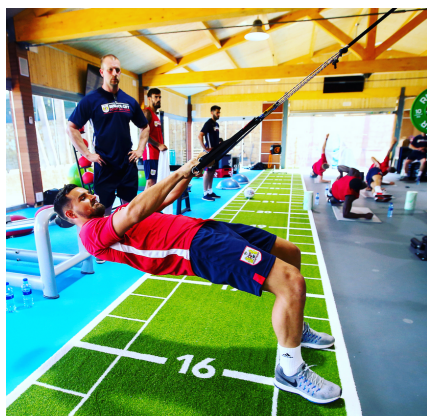
Repeat this movement as described in progression 1 and gradually move your hands closer together until you are unable to complete a full rep.



Return your hands to the last place you were able to complete a full rep and work in this range of movement for 3 sets of 10.

Liam Coffey MSMA MISRM is a soft tissue therapist based in Oxford, England.

A former competitive bodybuilder, Liam has gone on to work at all levels in sport, from grass roots and University level rugby at Oxford University, to professional football working in the EFL Championship with Bristol City Football Club.



Liam runs a busy clinic in Oxford where he sees a wide variety of patients, from professional athletes to those suffering with chronic conditions. He runs regular mobility sessions remotely from his clinic using the exercises in this book and other techniques.

*"During my time as a bodybuilder I learned how to do things properly the hard way... I didn't take adequate care of myself with regular stretching and mobility work so I paid the price with injury and various aches and pains. I have since prioritised mobility work and see a soft tissue therapist regularly to keep my body feeling good and working as it should."*



*"I love to give people the ability to maintain good muscular health through regular stretching and mobility work, but I also believe it is important to empower people with the explanations behind the various techniques I use. My instruction of each movement is thorough and this level of detail not only improves the quality of the movement but makes it purposeful for the person doing it."*

Liam is a senior tutor at the Oxford School of Sports Massage and runs various CPD courses for other manual therapists.

