

Physio Top Tips for Cyclists – Stretching

By Mark Matthews BPhy MCSP

Stand up and try to touch your toes ... without bending your knees. If you can and you're male, not only am I jealous but you are one of few. The ability to touch your toes is the result of many joints, muscles and nerves all moving together to achieve a very simple task; just like in sports - although you are aiming to achieve a single goal it involves many areas that need to be addressed during your training.

Increasing your flexibility maintains the range of movement of your joints, allowing your body to move unimpeded by tension or tightness which in turn improves your bodies efficiency. Increased efficiency of movement results in faster times and possibly a higher placing in races!! Years of repetitive training in sustained positions or poor movement patterns can lead to restricted joints and increased muscle tension that can eventually lead to a break down of the body. This can have many implications in a wide variety of conditions.

It is essential to have flexibility to achieve the most biomechanically correct positions for your sport, and in particular, the most aerodynamic set-up on a bike. In time trialling, a tight lower spine will force your upper spine to compensate, exposing more body surface area and increasing wind resistance thereby reducing your power output. Tight buttock muscles, whilst they may look good in a pair of jeans, will place more stress on the lower spine, hip joints and can have disastrous effects at the knee.

Your ribs are similar in concept to a handle on a bucket; they swing out and up as we breathe in and help draw air into our lungs. They have a large number of muscle attachments; hence any excessive tension through your upper body will have a direct effect on your ribs and reduce your lung capacity.

Think of your body like chewing gum. In the packet it is firm and stiff, but if you chew it for 5 minutes it becomes flexible like a rubber band. If you let it cool down it becomes firm and stiff again. Our muscles and tissues are exactly the same. It is during the recovery phase immediately post exercise that our bodies adapt, grow and improve to the stresses we have just inflicted upon them. This is the optimal time to stretch while the tissues are still soft and flexible.

All stretches should be held for at LEAST 30 seconds and repeated a minimum of three times. Do not push into pain, you should experience a 'good stretch' and be able to hold the position for the recommended time. It is recommended to do these stretches at the end of the day outside of training as the body has 'warmed up' throughout the day.

Below are some examples of essential stretching. There are many variations of these and as long as it 'hits the spot' then they are suitable. Please note the demonstrator needs to spend a lot more time stretching!!

If you have any questions, please do not hesitate to contact me at mark@thelondonphysio.com

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1. Calf

1.1 Both feet pointing forwards, keep the inside arch of your foot up (in neutral), move forward from your hips and you should feel the stretch in your upper calf.



1.2 Same position as above but feet closer together, ensure you maintain the arch on the inside of your foot. Now 'sit down' on top of the back foot. You should feel the stretch in your lower calf



2. Hamstrings

2.1 Sitting on the floor, bend up one knee to place your foot against the inside of your thigh. Sit up straight and roll forward from your hips, you should feel this under your thigh and knee. To progress, with both hands reach forward to touch your toes.



Stage 1



Stage 2

2.2 Standing, place one foot on a chair or bike. Maintain a good upright lumbar posture, slightly bend the knee and knee forwards. You should feel the stretch under the knee and thigh.



3. Quadriceps

Lying on your stomach, tuck your bottom in and hold, now pull your heel towards your bottom. You should feel the stretch along the front of the thigh.

The traditional standing version allows too much compensation to occur at the spine and usually results in an ineffective stretch.



4. Hip Flexors

On one knee on a mat, tuck your bottom in to roll in your pelvis. Keeping your body upright, lunge forwards with your pelvis still tucked in. You should feel the stretch in you hip/ upper thigh region.



5. Gluteals

There are two stretches to do.

5.1 – Lying on your back, place one foot on top of your opposite knee, now draw this knee towards your chest, reaching through to grab your knee, use your arms to pull your knee closer. You should feel a stretch in the buttock of the leg that is crossed.



5.2 – Start on your hands and knees, now cross one leg in front of the other to put your knee on its side on the floor. Now slide the opposite leg backwards. You should feel the stretch in buttock of the crossed leg.



6. Groin

Sitting up straight on the floor with your back against a wall or couch. Place the soles of your feet together and then draw towards your groin. You must maintain upright posture. Using your hands or elbows you can gently push down on your thighs to add more stretch.



7. Lower Lumbar Spine

Lying on your back, bend up one knee to place the foot on top of the opposite knee. Now reach across with the opposite arm to take hold of the knee and pull across. Let your pelvis roll but you must keep your shoulders flat on the floor.

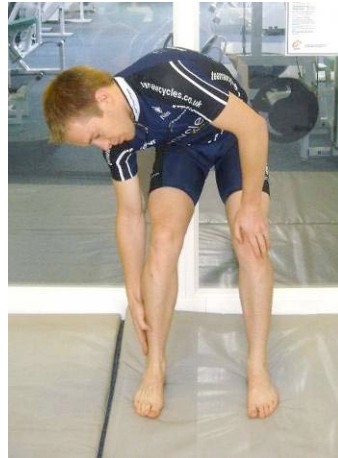


8. Lumbar Muscles

8.1 - Sitting on the floor with legs out straight. Bend up one knee to place your foot against the inside of your knee. With the same sided arm, reach up and back to place your hand between your shoulders. Now reach down with your opposite hand to touch your ankle, leading down with your shoulder so you twist your spine. You should feel the stretch along the side and back of your torso.



8.2 – Leaning against a wall, knees shoulder width apart and slightly bent. Reach down with one arm to touch your ankle on the same side. You should feel the stretch along the side of your spine.



Due to the prolonged sustained position of the upper body in cycling, the following stretches are very important to maintain mobility

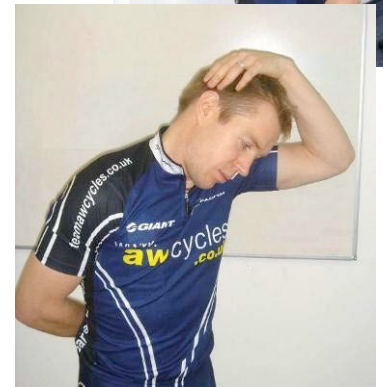
9. Shoulder

In a door way or against a wall, place the forearm against the wall with your elbow higher than your shoulder, now step forward with the leg on the same side while turning your body away to push your shoulder forwards. You should feel the stretch across the front of your chest.



10. Neck

Standing or sitting, place one hand behind your back. Now look away and down towards your opposite hip region. Using the other arm, reach over the top of your head to gently add more stretch. You can adjust your head position to gently change the stretch. You should feel the stretch along the side of your neck.



11. Thoracic Spine

This exercise is very important to maintain mobility and help achieve the most aerodynamic position on your bike. Roll a towel up into a small log, sitting on the floor and lay down ontop of the roll as shown with the towel in your mid spine. Lay in this position for a short time (2 min) and build up to 10mins



(Position to maintain)

(Starting position)

12. Forearm muscles

Straighten out one arm and bend your hand and fingers backwards. You should feel the stretch along the inside of your arm.

