
THE

CrossFit JOURNAL

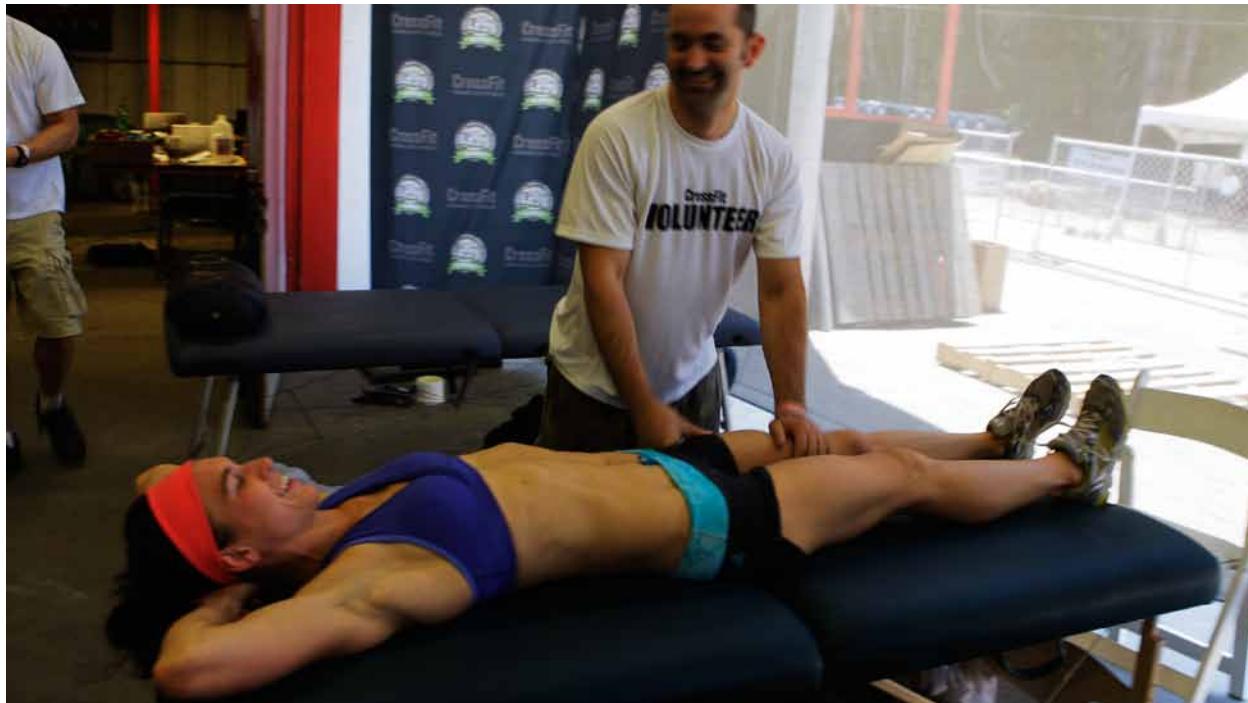
Tuning the CrossFit Athlete—Part 2

With several simple exercises, you can create a routine that will improve both your posture and your CrossFit performance.

By Daniel Christie | Am CrossFit

January 2010

Staff/CrossFit Journal



In Part 1 of “Tuning the CrossFit Athlete,” we discussed how common postural traits are evident in virtually every gym and CrossFit box worldwide.

Faulty posture, known as “upper and lower crossed syndrome,” can affect strength, stability and performance and negatively impact our ability to incorporate ideal form into key CrossFit lifts.

1 of 7

Now we'll show you how to improve your posture and improve performance through soft-tissue release techniques, focused stretches for commonly tight musculature, and gluteal and scapula-retractor activation exercises.

Foam rolling and active isolated stretching (AIS) are my personal techniques of choice to address upper and lower crossed syndrome. No fancy equipment is needed, and both techniques are relatively easy to incorporate into your CrossFit warm-up or do on rest days in front of your television. Foam rolling is a great way to reduce muscle density and deactivate troublesome trigger points that cause muscle shortening and pain and diminish strength.

To get the most bang for your buck when it comes to lengthening common tight muscles, I've included straightforward techniques that don't require awkward body positioning and time-consuming set-ups. The entire foam-rolling, AIS and activation routine should take approximately 20 minutes.

Foam Rolling

When rolling long muscles, roll in sections, always starting closest to your core. For example, when you roll your quads, begin with the area between the mid-thigh and hip, then move on to the area between the knee and mid-thigh.

Complete 4-6 strokes over each section or muscle.

If an active trigger point is located, maintain pressure on that area until the discomfort decreases by 50 percent. If the discomfort does not decrease by 50 percent after 15 seconds, move off the area and then revisit it, applying slightly less pressure.

Active Isolated Stretching

Hold each stretch for a maximum of 2 seconds.

Use reciprocal inhibition to accentuate the stretch response. For example, tighten your quads to improve a hamstring stretch (this works by relaxing the hamstring). You can further improve the stretch with the use of a rope or band.

Stretching should not be painful. You should experience mild discomfort at worst.

Activation

Perform 6-8 repetitions. The idea here is to activate commonly weak muscles without inducing any muscle fatigue.

Perform each exercise at a moderate pace and incorporate a 3-second isometric hold at the end of each movement.

Always perform activation work after you stretch your tight areas.

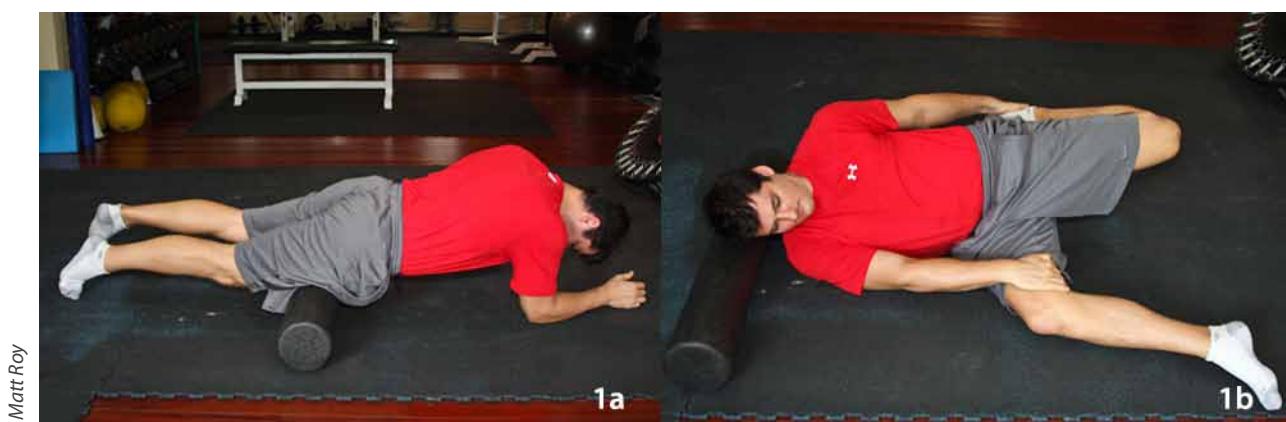
Sometimes it can be hard to sell the benefits of foam rolling to peers and box members, as it will add another 15 minutes or so on your warm-up. If your approach to "pre-habilitation" and injury prevention is met with resistance due to concerns about time, you can break the routine up into three mini routines.

For example:

Day 1: Quads, TFL, thoracic spine. Activator—bird dog.

Day 2: Pecs, lats, gastroc-soleus. Activator—band pull-aparts.

Day 3: Adductors and external hip rotators. Activator—bird dog.



Quadriceps

Start with the roller approximately 5 inches down from your hip bones and complete short back-and-forth rolling motions (Figure 1a). Roll the entire length of the anterior leg. This may have to be done in several sections. Caution is needed at the knee: you do not want to compress the kneecap.

To stretch the quads, lie on your side and grasp the front of the foot furthest away from the floor (Figure 1b). Tense your glutes and hamstrings and pull gently on your foot to elicit a stretch in the anterior thigh.

TFL

The tensor fascia lata muscle is commonly fibrosed and loaded with trigger points, especially in people who have tight external hip rotators and weak psoas muscles.

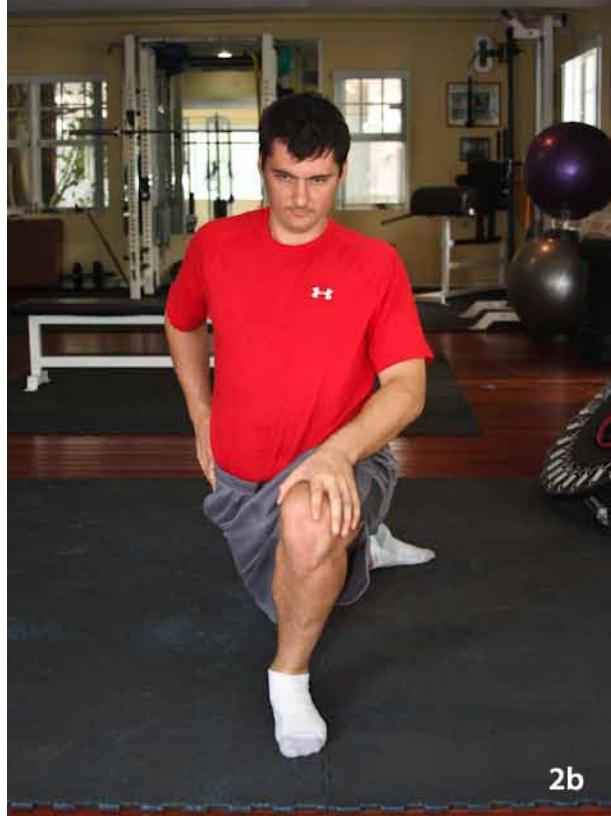
The TFL is not a big muscle, and its location is far more anterior than people think. To ensure you are rolling the correct area, put your finger on the anterior iliac spine and move down and outward 1.5 inches. Now rotate your thigh internally and externally. You should feel a muscle contracting and relaxing. That's your TFL.

You should use short back-and-forth motions to release this muscle (Figure 2a). I tend only to foam-roll the actual muscular part of this area. I don't feel there are any major benefits from rolling the entire length of the IT band as it is not a contractile structure and it's very commonly adhered or compressed against the vastus lateralis and/or the biceps femoris. Rolling can compound this problem.

The TFL is a really tricky muscle to stretch by yourself, so I personally developed a technique to open up the anterior hip: the PC stretch. The key to stretching the TFL in this position is the initial set-up (Figure 2b). Notice how the rear leg (the leg being stretched) is adducted and externally rotated. You then lunge forward while trying to keep the hips square. Ensure that you tense the glute max on the rear leg to initiate the lunging motion.

Adductors

I roll the adductors in 2-3 sections, starting around the mid-thigh and moving upward toward the groin (Figure 3a). Fibrosis is generally located in the bottom third of the adductors (where the adductor hiatus and the adductor membrane are located).



Tuning Part 2 ... (continued)

Matt Roy



For the stretch, lie on your back with the knee fully extended (Figure 3b). Use a rope or strap around the foot to help produce a stretch and to create internal rotation (toes turned inward). Use your quadriceps and hip flexors during the movement. Aim to lift the leg so your foot is approximately 8-12 inches away from your shoulder (horizontal distance). Use as much hip flexion as flexibility allows. This stretch has its emphasis on the upper region of the long adductor group.

Hip External Rotators

Cross the leg that is being worked to help to expose the rotators more (Figure 4a). Perform short medial and lateral movements over the roller. Ensure that you work from the lateral side of the sacrum toward the greater trochanter (hip bone). If you have well-developed gluteal muscles, you may need to use a tennis ball or small medicine ball instead of the foam roller to achieve an effective release of the external rotators.

To stretch the external rotators, lie prone with your knees together (Figure 4b). Squeeze your ankles together for 2 seconds, then internally rotate the legs to stretch the external rotators (Figure 4c). The heels will come apart but the knees will stay close together.



Matt Roy

Matt Roy

Matt Roy



5a



5b

Pecs

Lying prone on top of a roller, use small diagonal movements to foam-roll the pecs (Figure 5a). This will help to create length in the pectoralis minor. Because this muscle is short in length, it can be worked fully in one movement.

For the stretch, use a gym ball or plyo box (Figure 5b). Place the elbow so it is positioned just higher than the torso. Drop your chest down and back slightly while simultaneously tensing the posterior deltoid and scapula retractors to increase the stretch on the pec.

Lats

Place the roller directly in the crux of the armpit (Figure 6a). Perform short strokes approximately 3 inches in length, and then continue to roll the lower aspect of the latissimus just past the lower part of the shoulder blade. You may need to rotate the torso slightly in order to compress the bulk of the tissue.

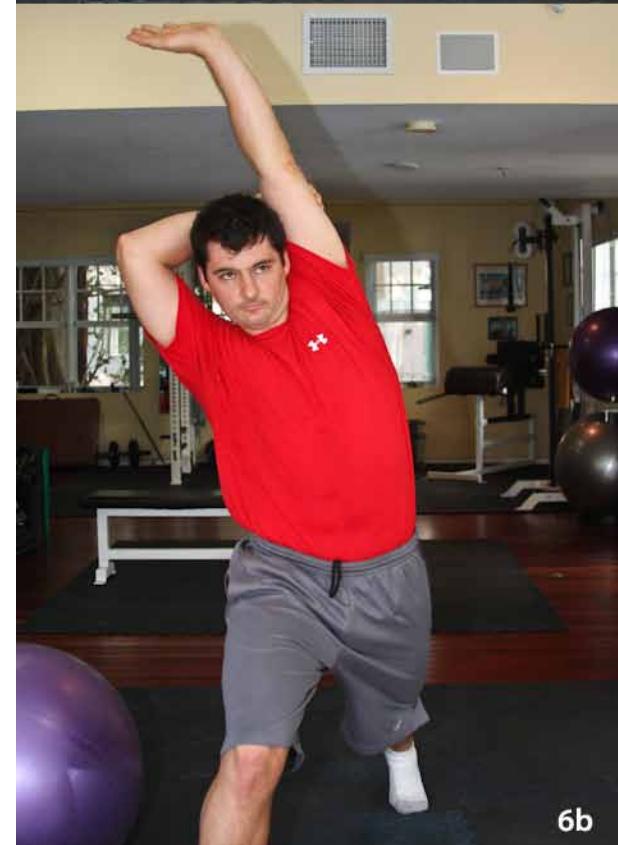
I prefer to perform latissimus stretches in a standing split stance (Figure 6b). I feel that this helps to lengthen the lower part of this muscle in and around the thoracalumbars area, and it's a great way of getting an extra little stretch of the quadratus lumborum.

Gastroc, Soleus and Peroneals

Ankle range of motion is of huge importance, and deficits here can cause myriad problems, including quad dominance and poor squat and deadlift movement patterns, to name just a few. Start rolling the calves from the mid-calf to just below the knee (Figure 7a). You will need to roll the outer and medial heads to ensure maximal release. To affect the soleus, you will need to apply more pressure because this muscle is very broad and flat. Again, ensure that you cover the lateral and medial borders.



6a



6b

Tuning Part 2 ... (continued)

Next, start in the middle of the outside of the tibia, directly on the bulk of the peroneals (Figure 7b). Roll to just below the knee joint, and then release the lower end of peroneals, finishing just above the lateral malleolus.

For the stretch, lie supine and place a rope or band over the ball of the foot (Figure 7c). Pull directly downward to get a broad stretch (Figure 7d). Turn the foot slightly inward to place large emphasis on the lateral aspect of the gastrocnemius and peroneals.

Matt Roy



8



7a



7b



7c



7d

Matt Roy

Thoracic spine

Thoracic-spine mobility is key for maintaining healthy shoulders and ensuring ideal form during many CrossFit lifts. Many CrossFitters lose the ability to reverse their thoracic curve, therefore incurring shoulder-impingement type pain and discomfort. This lack of mobility predisposes you to the dreaded upper crossed syndrome.

Place the foam roll or tennis ball at thoracic vertebrae 12 (T12), approximately just below the area a bra would be (if you wear one) (Figure 8). Hyperextend over the roller or tennis balls, then perform a mini-crunch type movement to help mobilize the thoracic spine. Perform 2-3 hyperextensions and mini crunches at each segmental level, and then move down slightly (approximately 1 inch). Repeat this until you reach the top of the thoracic spine, around the top of the shoulder blades.

Muscle activation

Now that you have stretched out those tight muscles and increased mobility of the main trouble spots, you need to activate the commonly inhibited areas. The two simple exercises I recommend are band pull-aparts and bird dogs.

6 of 7

Tuning Part 2 ... (continued)

Band pull-aparts are simple and increase muscular recruitment of the mid and lower traps and the scapula retractors. Holding a band overhead at shoulder width, begin the pull-down movement while pulling your hands apart to activate the required areas (Figure 9a). Once in position, hold for 3 seconds (Figure 9b).

Matt Roy



10

The bird-dog exercise has numerous qualities. Our intention is to activate the gluteus maximus and shoulder stabilizers (Figure 10). Note the full extension of the diagonally opposite arm and leg, which will help fully activate the glute and shoulder stabilizers. Hold this position for 3 seconds.

20 Bucks, 20 Minutes

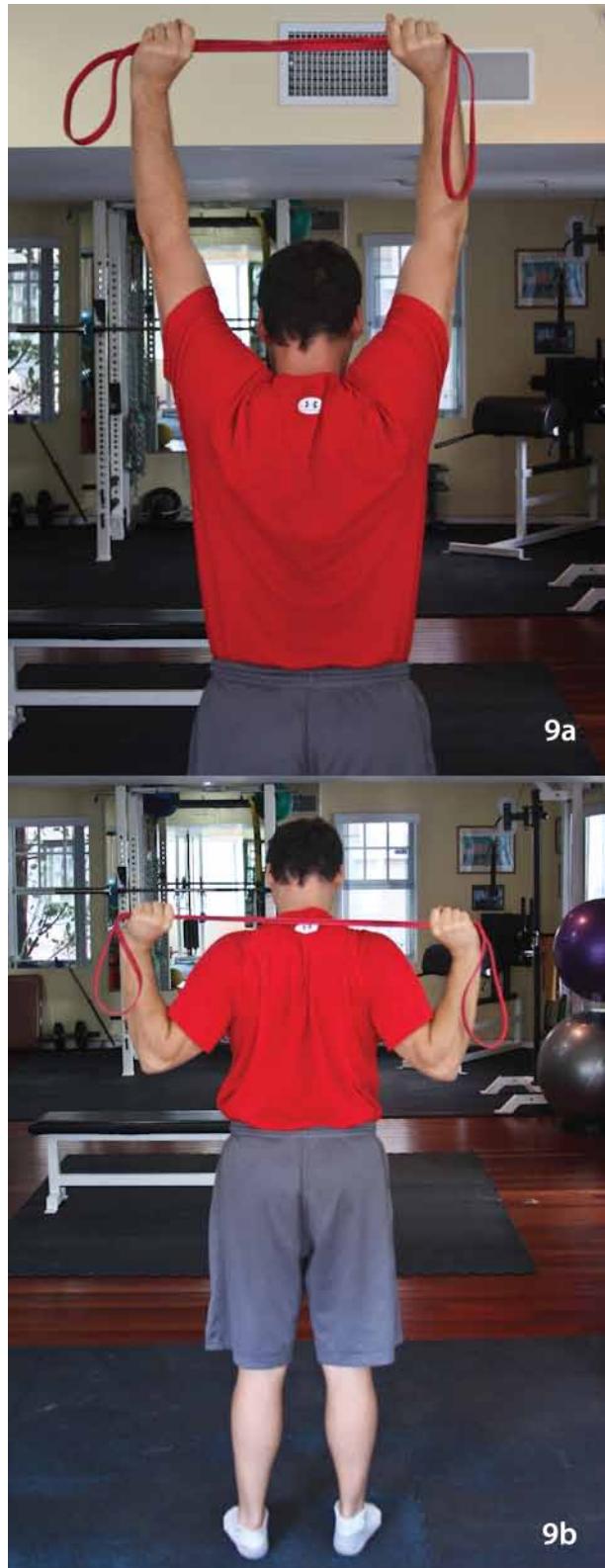
If you have postural traits of upper and/or lower crossed syndrome, add this short routine into your existing warm-up, recovery or rest-day sessions. These basic self-help techniques—foam rolling, active isolated stretching and muscle activation exercises—can be used to create a simple routine that will help prevent injuries and minimize current muscular aches and pain. Invest just 20 bucks in equipment and about 20 minutes of your time several times a week so you can maximize your WOD.



About the Author

Danny Christie is a graduate sports therapist from England. He now lives and works in Miami, Fla., where he continues to attend many manual therapy seminars and trains at [I Am CrossFit](#) in Doral. Danny is an advanced myoskeletal therapist and avid student of Erik Dalton's teachings. Visit his website at dannychristie.com, or e-mail him at danny@dannychristie.com.

Matt Roy



7 of 7