



Strong Foundation Part 2: Rotation

By Darryl Leech

If you're lacking in rotational strength then chances are you're lacking as a martial artist. Rotation is a part of our everyday movement, next time you walk pay attention to how your upper body works with your lower body and how in order to resist the inertia of our leg during its swing phase the upper body will rotate in the opposite direction so we can continue walking in a straight line. When we get out of bed or our car we twist and even when we have a backpack over one shoulder our bodies have to resist against a slight rotation. So as you can see if we are moving then the chances are we are rotating and if rotation has such great importance for something as simple as walking or getting out of bed then picture how important it is for martial arts – and how developing your rotational power to a high level will have you moving faster and hitting harder.

The Obliques:

There are many muscles involved in trunk rotation but the main two are the internal and external obliques. Aside from assisting rotation, the obliques also provide support for the hips, lumbar spine and rib cage during dynamic movement, in this regard they are important because if your ribs aren't stabilised when rotating or while taking a hit force will dissipate into your spine. We are only as strong as our weakest link and the hips and lower spine are a common weak link for most people, so strengthening those internal and external obliques are not only going to see you spinning like crazy but also give you great postural support. So how do you strengthen them?

Rotational Exercises:

Not enough martial artists take advantage of incorporating rotational exercises into their training programs, which is a shame when you consider their importance in providing ideal posture and improving functional movement. Applying a good mix of upper and lower body rotational exercises to your gym routine will improve your speed, balance and coordination and if you think you don't need that as a martial artist then think again. Let's get to it.

If rotational exercises are unfamiliar to you then start slow and be mindful of your posture and technique.

Fitball Upper Russian Twist: Lie on the fitball with your shoulders on the middle of the ball. Start with your hands together and in front of your body. Keep your hips up and your core firm and rotate your torso to one side rolling your shoulder onto the ball.



Fitball Lower Russian Twist: This exercise is great for mobility of the hips, which will help in developing kicking strength. Begin in a push up position with knees on a fitball. Keep your hips up and maintain neutral position of your spine. Twist through the lower half of your body and stop when your thighs become parallel to the floor.



Alternating Twist Lunge: Your basic lunge pattern with a twist. This is a great exercise to warm-up your body for just about any activity but is especially useful for martial artists who want to increase their rotational power.

One of the main problems people tend to have with lunges is how they plant their foot on the floor and because most of our speed and rotational power is developed from how much force we can drive into the ground this is a problem that needs to be fixed. Thanks to poorly designed training shoes and especially high heels people are getting weak ankles and all the postural problems that come with them, and most importantly are forgetting how to use their feet correctly.

When lunging be mindful of how you are, firstly, planting your foot against the floor, what it's doing while it's there and how it's pushing off the floor. When you step forward into your lunge concentrate on your heel landing first then the ball of your foot followed by your big toe, in this position the weight should be spread across these points evenly.

Note: The front leg is the one that should be doing all the work in a lunge. It is common for people with knee problems to want to cheat by pushing with their rear foot.

Note: Most knee problems are caused by weak ankles and faulty tracking of the foot and can be fixed by spending time on training your foot in the correct manner – concentrating on how your foot works against the floor. Also perform your lunges in bare feet to really work on their tracking and to get a feel of which parts of your foot are doing the most work.

When pushing off the floor try to imagine you are not just pushing yourself back but rather you are trying to push the floor away from you, this will help you generate more force against the floor and if you've done it correctly you'll feel your hips and thighs work much more.

When performing the twist keep your body upright and twist your arms over your leading knee, as you are returning to a standing position bring your arms back in front of you and then repeat on the opposite side.



Uneven Barbell Lunge: Lunges are a great functional exercise that should be incorporated into every martial arts training program. This variation of the lunge will give your obliques and other stabilizers of the hips a great workout.

Take a barbell and put weights on one side only. When balancing the bar on your back – just below your neck – remember to keep your chest up tall and with your hand pull down on the side of the bar without weights by activating your lat and steady the bar with the opposite hand. When performing this exercise the real goal is to not let the unbalanced weight pull you around and to maintain the same technique that you would in a balanced lunge.

Be mindful of the above pointers on lunging and remember to keep your chest up tall. Keep your core activated and consciously hold your hips firm - don't let them shake too much and don't let one side dip while stepping. Perform reps with the weight on each side.



Wood Chop: This is one of the best/most effective exercises for developing powerful rotation. Stand next to a cable machine (cable can be set at low, middle or high) and reach one hand across your body and hold the handle then place the hand closest to the machine on top of the hand holding the handle. Keep your arms straight and your shoulders relaxed, pull the cable across your body and twist through your waist. Shift the load from the foot closest to the machine to the opposite one as the cable moves across your body.

Note: Aim to keep the movement purely rotational with no flexion of the spine.

Note : if you're having trouble working through your waist and feel your shoulders taking all of the load then try regressing the exercise to sitting on the fitball. When sitting on the fitball just set the cable at mid height. Using the fitball is good as it will hold your lower body in place and give your obliques more of a chance to activate.



Fitball Frog Kick: This is a great exercise for rotation and stabilization of the hips and is an especially good exercise for martial arts styles that contain a lot of kicks.

To get into position it's easiest to start with your hands on the floor and then place a foot on each ball. Once in position try to keep the fitballs about a fist distance apart, make sure you hold a neutral spine and keep your arms straight with hands directly under your shoulders (figure??). From here move your right knee to your right elbow from the outside of your body and dip your left hip towards the floor – be sure to brace through your left foot/leg. Return to start position and repeat on opposite side.

Note: when twisting through your body remember to maintain a neutral spine and to keep your arms straight, this will also help with mobility of the shoulder joint.

Note: if you struggle to maintain balance regress the exercise to the Fitball Lower Russian Twist.



Standing Barbell Twist:

Take an Olympic bar and stand so that you are on a slight angle, keep your feet planted and arms straight. Twsit through the upper body and lower the bar to one side – about half way between your hips and shoulders, then brace through your waist and twist the bar over to the opposite side.

Note: Keep your shoulders relaxed and aim to create the rotation from your waist and not just move the bar with your arms. If you find that your shoulders are working too hard and your waist isn't really activating then your core may already be fatigued and you should use a lighter bar.

Note: flexion through the thoracic region of the spine (upper back) will decrease the range of your rotation so while performing the above exercises please maintain a neutral spine (no excessive curves) so that your obliques learn to work in a vertical axis and that no poor training habits are developed.



The Workout:

Warm up:

Fitball Upper Russian Twist: 12-16reps / tempo: 1-1-1

Fitball Lower Russian Twist: 12-16reps / tempo 1-1-1

Alternating Twist Lunge: 12-16rep

Perform 2 rotations of the above exercises – 1min rest when completed.

Workout:

Uneven Barbell Lunge: 10reps (with weight on each side) / weight: -2 / tempo: 1-0-1

Wood Chop: 10-12reps each side / weight: -1 / tempo: 1-1-1

Fitball Frog Kick: 12-16reps / tempo: 1-1-1

Standing Barbell Twist: 20reps / weight: -2 / tempo: 1-1-1

Rest for 2-3mins. Perform 3-4 rotations of the above exercises and perform this workout 2 days after the previous workout (Strong Foundations Part1). Allow 2 days recovery before performing again.

Note: 'weight' suggests that you chose a weight that will allow you to perform the desired amount of reps with energy left. For example if the 'weight' is -2 and you need to perform 10 reps you will chose a weight that will allow you to perform 12 reps perfectly. This ensures you are not burning out and maintaining perfect technique. 'Tempo' refers to the speed of the movement, '1-0-1' would suggest that you spend 1sec performing the first phase of the exercise, 0sec holding the position and 1sec returning to the start.

REMEMBER YOUR TECHNIQUE!!!! IF YOU ARE HURTING YOUR BACK NECK OR SHOULDERS THAN YOU AREN'T DOING IT PROPERLY. IF YOU HAVE TROUBLE EITHER GO OVER THE NOTES OR CONTACT ME FOR ADVICE.

Conclusion:

Developing powerful rotation should be one of the main goals of the active martial artist – the gains from having strong rotation are just too great to pass off. As always, remember to choose the exercises that will promote movement and complement your style.

Enjoy the workout. In the next article we'll cover speed.