Strong Foundation: Part 1 Base Conditioning

By Darryl Leech

If you don't condition your body before putting it under stress you'll definitely be setting yourself up for injury. You've probably seen someone running along the side of the road on your way home from work, their upper back is rounded, they have really bad forward head posture and each step they take looks like it's putting them in more and more pain. This is the look of some one who hasn't had enough conditioning and lacks the postural stability to see them through that action.

Martial arts training can place a huge strain on the supporting structures of the body (ligaments, bones, stabilizers) and if you're not correctly conditioned you could be setting your body up for a world of hurt down the track. When it comes to practicing martial arts, the importance of maintaining a strong foundation cannot be stressed enough.

Shaky Foundations:

Performing repetitive movements or activities while your body lacks this postural stability will only serve to highlight the weaknesses throughout your body. It may not happen right away but this continual strain on the body will cause pain and injury. If you currently cannot make it through your training session without wearing a knee brace or something similar then it's safe to say that you're lacking sufficient strength and only damaging your body further – if this sounds like you, you should definitely consider cutting back on your martial arts training and concentrate more on your base conditioning. When it comes to putting a weight training program together a lot of martial artists fall into the trap of following a body building workout plan, although some gains may be achieved it is important to realize that it will only take you so far and if you want to be a strong martial artist then you have to train in a way that compliments the way you would move or function.

Avoid machine weights all together as part of a functional strengthening program. Machine weights do not promote ideal function or ideal posture. Most machine weights (cable machines being an exception) focus on isolating one muscle or one group of muscles, which –in some cases – may be good from a rehabilitation point of view, but as part of a strengthening program only serves to teach your body faulty loading patterns. This is because when you use a seated weight machine that guides the movement for you, you are only activating and overloading one part of the whole movement; quadriceps for a leg extension - no activation occurs through the core or hips; deltoids for a shoulder press – no activation of internal stabilizers of the shoulder girdle; calves for calf raise – no activation of core, hips or extensor muscles etc. To give you a better idea of how training with machine weights affects the loading and recruitment patterns of your body imagine you take five people from your class and you tell one to be a foot, one to be a calf, one to be the quads, one to be the hamstrings and the last one to be the glutes – then tell them to move like a leg. Aside from looking stupid, they'd have no idea how to function

together because each is operating and thinking independently from the other, this is basically what happens when you focus on training each individual muscle.

By incorporating big movements that teach your body to function as a whole unit you are teaching your body to correctly load and recruit muscle fibres and stabilizers, which will;

1. Make you stronger and more responsive
2. Give you better postural stability
3. Help prevent injury
4. Increase your balance and coordination; and
5. Increase your energy

Developing functional training programs for each martial arts style would take sometime, so we'll just cover how to build a strong body that will have you ready to perform in any style. Lets get to the program.

Squats:


Figure 1a


Figure 1b

Note: - forget what you've read in exercise books about how your feet should be exactly shoulder width apart, how you should never leave neutral spine position, or how you should never drop your hips bellow knee level.

The squat is one of the most basic of all movement patterns – if you can't squat properly you should take the time to master them. Squat with your butt going all the way down to the floor, cutting your squat short will overtime cause you to weaken through the hips and overload your quadriceps – which can lead to back and knee pain. Also, research has proven that full range squats cause less damage to the knee than half range squats.

Because we all have different body shapes and are different in height and flexibility, we aren't all going to squat exactly the same way. Someone quite flexible may be able get their hips all the way to the floor with their feet only hip width apart, while an inflexible person may have to space their feet much wider apart – the point is you should find the most comfortable position for you to squat from. To find out where you should be squatting from first drop into a squat on your toes (figure 1a), from here shuffle

your feet apart until you can sit flat footed with your torso resting on your thighs and your chest up (figure 1b) – this position is where you will be squatting from.

Note: if you have trouble getting into this position and sitting comfortably you can try holding onto something in front of you for balance. If you still have trouble then you may have to work on your flexibility. Common tight spots are the calves, hip flexors and spinal erectors, common weak spots are the glutes and thoracic extensors.

Note: Perform your squats (and every other leg exercise) with bare feet or flat shoes. Most running shoes have a slightly elevated heel, which can place more load through the calves and quads, which will promote an unbalanced squat – not too big a deal but can cause problems over a long period of time.

From the figure 1b position keep your chest up tall and push into the floor with both feet evenly. Push your body upwards into a standing position. While standing be sure to keep your chest up tall the whole way.

From the standing position lower yourself back down to figure 1b. Keep the pace of the movement slow and controlled, this will cause all the stabilsers of the hips to kick in and get all of your muscles working together. Rushing them may cause you to develop poor training habits.

Barbell Front Squats:


Figure 2a


Figure 2b

Before you begin this exercise find out which grip will be the most comfortable. Figure 2a shows the barbell resting across the top of the color bone, hands are gripping the bar and elbows are up high. This grip will cause more activation of the lats and provide more stability for the upper body. Figure 2b is ideal for those who don't have enough flexibility in the shoulder girdle. Again rest the bar across the color bone but cross your arms and use your hands to hold the bar in position.

Note: Work at strengthening your lats and thoracic extensors and stretching your chest to achieve the grip shown in Figure 2a.

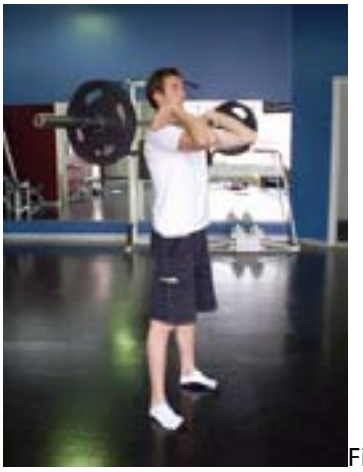
Figure 2c


Figure 2d

From a standing position (figure 2c) keep your chest up tall and lower your body into a full squat (figure 2d). When pushing from the floor remember to keep your chest and elbows up tall and almost move as if you are starting from your upper body – as if you are trying to lift your chest up towards to ceiling. Push into the floor with both feet evenly and bring your whole body up together – do not let your hips push out behind you as you come up. Everything should come together at the same time when you finish the movement.

If you are finding that your hips come up first then your upper body follows you need to refine your technique, as this technique will encourage a faulty movement pattern where you place excessive load through the lower back. You want to be at the point where your whole body works together and not one single area is working too hard.

Note: If you have trouble with exercise regress back to just body weight squats and focus on improving your technique then move onto light front squats.

Dead Lifts:


Figure 3a

Dead lifts are a great exercise that promote strength and stability of the hips and are also a great exercise to promote ideal posture, core activation and functional movement. A lot of people shy away from dead lifts fearing that it will harm their back but this is really only true if you are lifting incorrectly or have an existing back problem.

Note: Don't attempt dead lifts if you currently have back, neck or shoulder pain. First address these issues, it is common for people with low back pain to have weak glutes, thoracic extensors and lower abdominals as well as tight hip flexors, chest, and erector spinae.

Figure 3a shows a standard dead lift grip.


Figure 3b


Figure 3c


Figure 3d

Stand with you shins close to the bar and grip the bar (figure 3b) – DO NOT lift from this position. Lower your hips and lift your upper body, keep your arms straight (figure 3c). From figure 3c push your feet against the floor and straighten your body to a standing position (figure 3d). When in the standing position lift your chest and retract your shoulder blades – don't shrug your shoulders. To lower the bar first bend at the waist so you lean forward – let your arms hang – then bend your knees and lower you hips, remember to keep your chest up. Don't let the bar touch the floor, this may cause all of your stabilsers to switch off. Again your whole body should move together – not your hips first then your upper body.

When performing a dead lift think more about pushing yourself away from the floor with your feet rather than lifting the bar with your upper body. You want to train your legs and hips to take the load not your back.

Note: Most dead lift techniques say that you should guide the bar along your shins and thighs as you perform the movement, avoid doing this as it changes the angle at which the load is placed against the body and can cause the lower back to overload. When lifting correctly the bar will miss your legs all together and the load will be evenly dispersed across the whole body.

Note: If you've lifted correctly you won't feel one particular muscle or group of muscles working but feel an over all over tiredness. Your whole nervous system should be awake.

Barbell Pushups:


Figure 4a


Figure 4b

The bar creates a slightly unstable position for your arms and thus will activate the stabilizers of the shoulder girdle. Make sure you maintain neutral posture – no excessive inward or outward curves of the spine – and keep your core on. When in the lowered position (figure 4b) make the feeling of pushing the bar away from you as opposed to pushing yourself up, this will cause more activation of the pecs and shoulder stabilizers.

Note: To stop the bar from rolling forward, keep your weight over the bar by keeping your hands directly under your shoulders.

The Workout:

Warm up with 2 sets of 15 body weight squats. Keep the movement slow and controlled and spend 3secs going down and 3secs coming up.

Dead lifts: 8-10reps / weight: -2 / tempo: 1-0-1

Barbell Pushups: 8-10reps / tempo: 1-0-1

Front Squats: 8-10reps / weight: -2 / tempo: 1-0-1

Barbell Pushups: 8-10reps / tempo: 1-0-1

Rest: 2-3mins or until recovered

Perform the above superset 3-4 times. Perform this workout 2 times a week with at least 2 days rest in between.

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.

This workout shouldn't really smash you. You will feel tired/wiped but you don't want to work to the point where you are so tired that you can't perform the exercises correctly – that's when injuries happen. Remember we're trying to work on correct technique and condition the body, not run it into the ground. If you finish the workout and feel like it was too easy you can finish with some light cardio work, don't go hard because if you've worked correctly your core and other postural stabilsers should be very tired.

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:

No matter how advanced in strength and fitness you may be you should always come back to a basic conditioning phase of training, and as a martial artist your strength training should always focus on exercises that are going to promote functional movement and ideal posture. Consider how many times you've come back to basic skills practice to keep your abilities sharp in your journey through the martial arts – the same principle applies to your strength training at the gym.

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