



Snails Pace – Lightning Fast Part 1. Speed Training for Taekwondo

By Darryl Leech

One of the strengths of taekwondo is its speed and power, everyone knows this but is everyone developing their speed in the best possible way? Speed training is about more than just pushing yourself as fast as you can as much as you can (although this will play its part), increasing your speed from a snails pace to lightning fast takes both patience and a functional approach.

Speed is traditionally defined as 'the ability to move the body and or its parts quickly'. Speed training for Taekwondo is fairly unique considering the many dynamic techniques involved and amount of balance and coordination required performing them correctly. Unlike more traditional speed based sports or activities – soccer, basketball, sprinting – taekwondo uses a lot of open-chain movements (where a limb is in free space – kicking, punching) and many ways in which to use them; spinning kicks, jumping spinning kicks, jumping spinning kicks while reacting or recovering etc. The point is before a Taekwondo practitioner even considers working on their top speed they will need a high level of conditioning and postural stability, which will help in developing their efficiency of movement and in avoiding injuries. Over this two part article I'll cover the outlines of speed training and ways to apply this to both the gym and the dojang.

Speed Prerequisites:

As mentioned above in order to have a fast body you must have a conditioned body. The following are the prerequisites that will help in increasing your speed. It is important that each of the following be trained to some degree in every workout, but one may be given more attention over another depending on training goals – training for a competition may require more of an endurance/coordination focus – but developing each of the following to a high level is what will see you reach your full, speedy potential.

1. Flexibility: *The flexibility requirements for taekwondo are very unique and your flexibility program should be designed with mobility and exciting the nervous system in mind. A taekwondo practitioner lacking in flexibility will definitely not reach their maximum potential speed. Your flexibility program should be functional in that it mimics the goal you wish to achieve, static stretching should be saved until the end of your workouts (if at all) as this relaxes the nervous system and doesn't really provide the best results for speed training.*

2. Coordination: *Coordination is another important facet of Taekwondo training and includes the abilities to spatially orientate oneself, to react, to keep rhythm, and to maintain balance. All of these traits of coordination will be trained to some degree in each class – even if you are unaware. Coordination needs to be developed to quite a high level for any Taekwondo practitioner in order to have quick timing and be able to recover from unbalanced positions (for example when sparring you may try to launch a counter attack after being pressed back).*

3. Endurance: *This can be seen as either general or specific. General endurance refers to being able to maintain a certain level of performance for an extended period of time – aerobic endurance. Specific endurance refers to the ability to perform a specific skill for a set duration. General endurance for Taekwondo may just mean developing your ability to perform certain routines, techniques or sparring (or all of the above) for an extended period of time, while specific endurance may mean developing endurance for timed bouts in a tournament or endurance for performing forms.*

A lot of Taekwondo practitioners use the treadmill for their endurance gains, which can be good for a recovery or cross training phase of training, but always remember the SAID principle (Specific Adaptation to Imposed Demand) – is what you are doing specific to the goal you wish to achieve? If you want to be a fast Taekwondo practitioner you have to develop your Taekwondo endurance not just your aerobic endurance. We'll cover more on this in the next article.

4. Strength: *Before you can be quick you need to be strong. A weak body will be unable to move at top speeds due to limitations in force output. As a Taekwondo practitioner your strength focus should be on developing your ability to overcome internal resistance, which in the gym means moving off the seated, pin-loaded machines and choosing exercises that will challenge your stability – in this sense your strength developments will become more of a combination of coordination and strength.*

5. Speed: *When putting together your speed training program again you must consider the goal you wish to achieve, for example if the goal of the speed is to perform a single technique – for a demonstration maybe – then the training guides will differ from a program that requires multiple techniques – for a competition. So is your program going to be speed or speed endurance based? Both should be addressed at some point throughout your training plan but always remember the overall goal of the training phase.*

In the gym...

In my last article (Vol.16 No.3 – Getting it right) I went over the SAID (Specific Adaptation to Imposed Demand) principle, which basically tells us that we should prepare our bodies specifically for the goal we wish to achieve. The results achieved from the bench press and bicep curls don't really help in making a better martial artist, but many martial artists keep doing these as part of their gym workouts. Consider the amount of movement involved in an average Taekwondo class – ducking, lunging, twisting, jumping, darting, add on top of that all the kicking techniques an average TKDer will perform – and then consider how in order to follow the SAID principle and maximize your training your workouts must resemble the above movements. The following workout is great for Taekwondo and includes all the prerequisites for speed development.

The Workout:

Flexibility:

The True Stretch: The True Stretch was designed by internationally renowned physical therapist Gary Gray, and is now used by professional athletes all over the world. The idea behind the True Stretch is that we stand and move in life so our training and flexibility programs should mimic this. It is especially useful for Taekwondo practitioners as all techniques are performed while standing and go through large ranges of motion. A flexibility program that has you sitting on the floor will provide gains but isn't entirely functional because as a Taekwondo practitioner you need your flexibility while in an upright position.



Follow the bellow stretches, don't stay in one position too long – as this will turn into a static stretch – but rather keep your hips and body moving.

Hamstring & Adductors:



Hold this position for 1-2sec



Now change your grip and let your hips fall behind you and hold this position for 1-2sec.

3D Calf:



Keep your heel planted and keep twisting through the hips.

Quadriceps and Hip Flexors:

Hold this position and twist your hips forward and back – gently – to feel a stretch all through the quads and hip flexors.



Coordination:

Single Leg Proprioceptive Balance: To perform this exercise simply stand on one foot and close your eyes. Do this exercise to encourage activation of internal stabilisers of the ankle, knee and hip.

Alternating Bend and Toe Touch: Stand upright in neutral spine position and bend at waist while raising one leg straight out behind you. Touch the floor with the opposite hand to the supporting leg then return to the start position and repeat on other side. Keep this movement controlled. Also try this with your eyes closed.



Pushup with Knee to Elbow: Perform a standard pushup while holding one knee to your elbow, alternate knees with each rep. Be sure to maintain a neutral spine position.



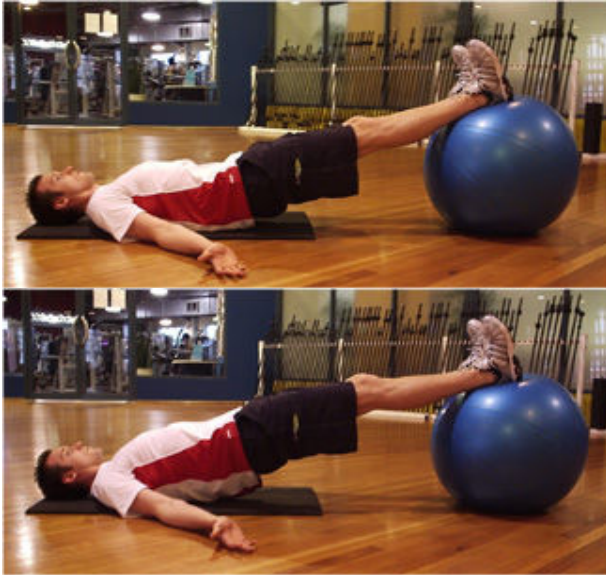
Fitball Frog Kick: This is a fantastic exercise for Taekwondo practitioners as it encourages mobility and strength of the hips and also works the core. Alternate bringing knees to the outside of your body. You can perform this with either slow controlled movements or with a moderate pace but always be sure to maintain your neutral spine – stop if your hips are sagging too low or your upper back arches up too high.



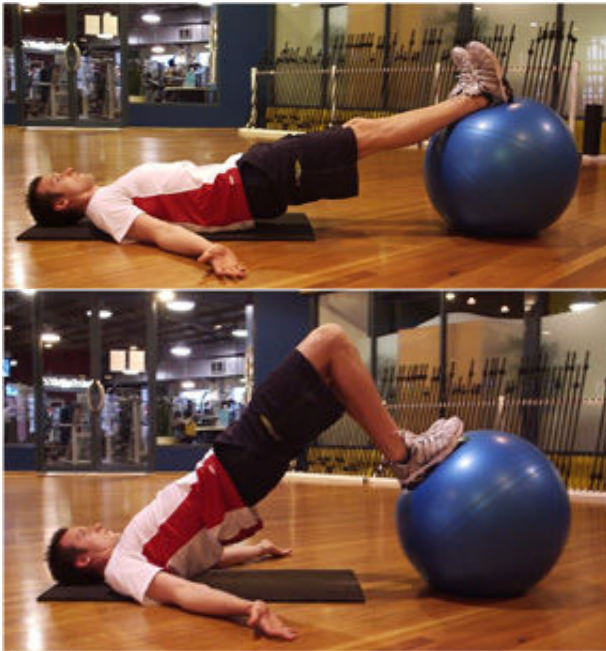
Endurance:

3 Level Hamstring Curl: This exercise is great for strengthening the hamstrings and also helps with developing force output which is similar to when you jump or explode from one position to another.

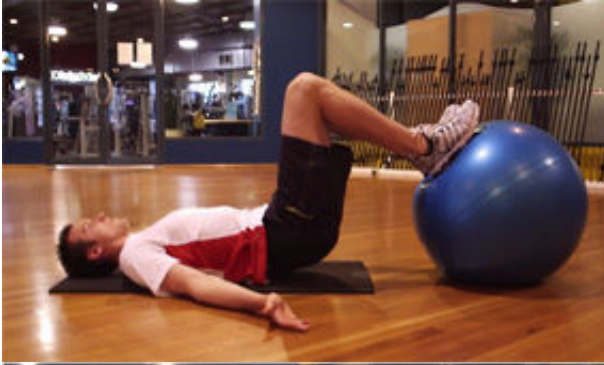
Lay flat on your back with your feet on top of a fitball. For the first exercise keep your legs straight and lift your hips up and down – perform 3-8reps.



Next, start with your legs straight then bend your knees to bring the ball towards your butt and push your hips upwards – 3-8reps.



Finally start with your knees bent and feet on top of the ball and just push your hips up and down – 3-8reps.



Each of the above exercises can also be performed on single leg – this is highly advanced.



Strength:

Squat and Dumbbell Press/Twist: This exercise is great for developing power through the legs and rotation through the torso. If you have any shoulder problems please do not try this exercise. Begin by holding dumbbells on your chest and lowering into a squat position. From here push your heels into the floor and make the feeling of pushing the floor away from you rather than just pushing yourself up. Tighten your glutes and activate your core. To finish either press both dumbbells above your head or add a twist and only press one. Perform sets where you perform a straight press then a twisting press on each side, 3 squats will equal 1 rep – 3-5reps.



Lunge Cable Row: This exercise works the 'posterior oblique sling', the sling of muscles which assist with the propulsive phase of walking or running. It is a great exercise to add to your speed training program.

Begin in a lunge position and hold a cable with the opposite hand to the leading foot – cable can be at either low, medium or high height. Lower into the lunge with the cable arm straight, from here push your leading heel into the floor to activate the glutes then push the cable elbow behind you to activate the latissimus dorsi opposite to the working glute. Keep your chest up and don't let the weight pull you forward.



Before attempting any of the above exercises please ensure that you are able to activate your core stabilisers and have no back, neck or shoulder pain. If you are unable to maintain postural stability please realise your limitations and take the time to develop this strength. I can be contacted via email – darryl@activered.com.au – if you have any trouble.

When training it is important to keep perfect form as training with anything less is only going to cause you to develop bad habits that will lead to pain and injury. Postural stability needs to be maintained throughout the whole training session, if you are fatigued you should stop your workout or at least move onto exercises or techniques that don't require much coordination and are physically less demanding to avoid developing any postural problems or injuries. Before you take part in any speed based program time must be spent conditioning the body to ensure that you are able to perform all of your desired skills perfectly and with postural stability.

Conclusion:

Giving your body the right workout requires an understanding of the goal you wish to achieve and a consideration of the demands on the body, from energy systems, movement patterns, velocity, eccentric/concentric demands, neural synchronization and over-use of joints and muscles. As mentioned earlier developing speed is more than just trying to move really fast, it takes time and conditioning. Now it's time to practice the above workout because the next article will cover speed training in the dojang – look forward to it.