Fluent Movement Series

Phase 1: Activation and Awareness

This is the first out of a 4 part series focusing on the details and fundamentals on how to (re)learn to move easy, it is not aimed only towards athletes, but towards everybody. I have separated the program into 4 separate articles.

- Phase 1: Activation and Awareness
- Phase 2: Integration
- Phase 3: Global Coordination - Whole Body Movements
- Phase 4: Dynamic Control - Making it Automatic

What you will read below is not just a program. The most important part are the exercise descriptions.

Why?

Terms like gluteal activation, yoga, mobility, flexibility, etc get randomly thrown around and you see in gyms worldwide, people trying to perform some of the movements described in this series. The most important aspect of doing anything in life, that includes training is ***awareness*** - knowing WHY you do it. For a fancy term it is called neuromuscular awareness - it's your brain that runs the whole show. ***The mind and body note every movement pattern whether it is good or bad, so feed only the most efficient messages into the nervous system***

Some background information can be found in the following links

What is Functional?
http://www.thetallcyclist.com/2016/01/fit-fast-but-are-you-funcitonal/

Functional Anatomy for Endurance Sports
http://www.thetallcyclist.com/2016/02/functional-anatomy-for-sports-and-cycling/

Muscle Imbalances and Endurance Sports
http://www.thetallcyclist.com/2016/02/muscle-imbalances-and-endurance-sports/

Feet for Endurance Sports
http://www.thetallcyclist.com/2016/02/feet-and-endurance-sports/

Functional Assessment and Mobilisation for Endurance Sports
http://www.thetallcyclist.com/2016/03/mobilisation-for-cycling/

Abbreviations used:

TrA – Transverus abdominis
Gmed - Gluteus medius
Gmax – Gluteus maximus

Equipment

Equipment is rather simple. You will need a swiss ball that you can comfortably sit with knees at 90 degrees. Ball should be inflated enough to be firm. Do not deflate it in order to get a better fit.

The average person up to 170cm, (5'7") will find a 55cm ball suitable and up to 185cm (6'2"), a 65cm ball will work nicely. If you are over 190cm (6'3"), a 75cm ball should be used.

Also you will need a stretch band (available at physiotherapy/fitness stores) and a weight (NOT heavy; 1-2kg/2-3lbs) that you can hold like a medicine ball.

Tips and Instruction

- The program duration is 2 weeks (before moving to Phase 2), however, as mentioned above you are going for the 'feeling' of effortless movement. Therefore take as much time as needed. Refrain from the anxiety because “I don't feel like I am doing anything!”
- This is **an addition** to your other training (running, cycling, swimming)
- You can do it as a relaxation before going to bed
- Aim for PERFECT movement every time. As you fatigue and start using additional muscles or "go back to old habits," switch to another exercise. Do 5 perfect reps rather than 10 poor ones. Phase 1 movements are perfect for warmup and in between (weight) sets, etc.
- Exercises can be performed every day, however, aim for at least 2-3sessions per week
- Session duration is 15-30min

Exercises

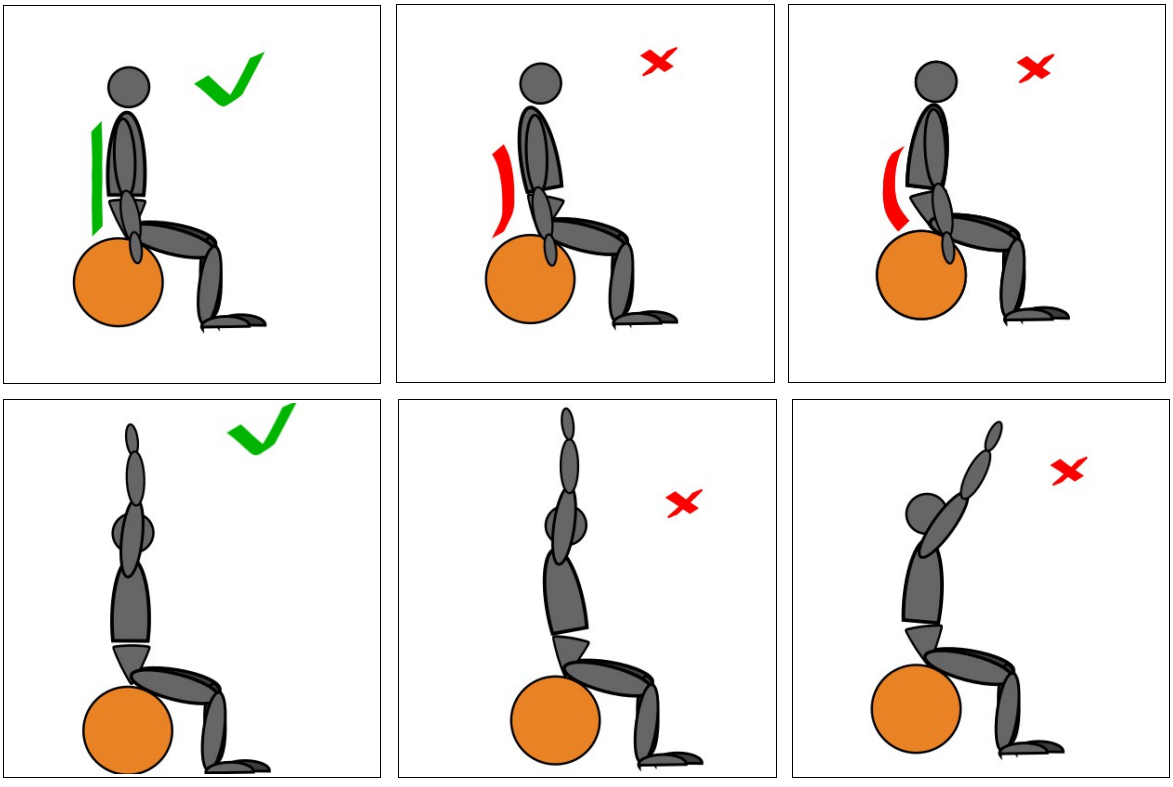
Ball Bouncing

6x30s as a starting exercise

Among the most fundamental movements that we our muscles are hardwired (LINK) to do is the ability to resist gravity. Particularly the deep stabilisers around the spine. You can emphasize that movement by "ball bouncing"

Sit on a swiss ball and find your sitbones with your hands. Arch your back back and forth and feel your pelvis tipping forward and backwards. Find the position where you are sitting directly above your sitbones. This is the position for ALL seated exercises.

Stretch both arms overhead and feel your stomach draw in as you do that. Squeeze your butt muscles and as such initiating a slight bounce. Make sure you are 'landing' directly on your sitbones



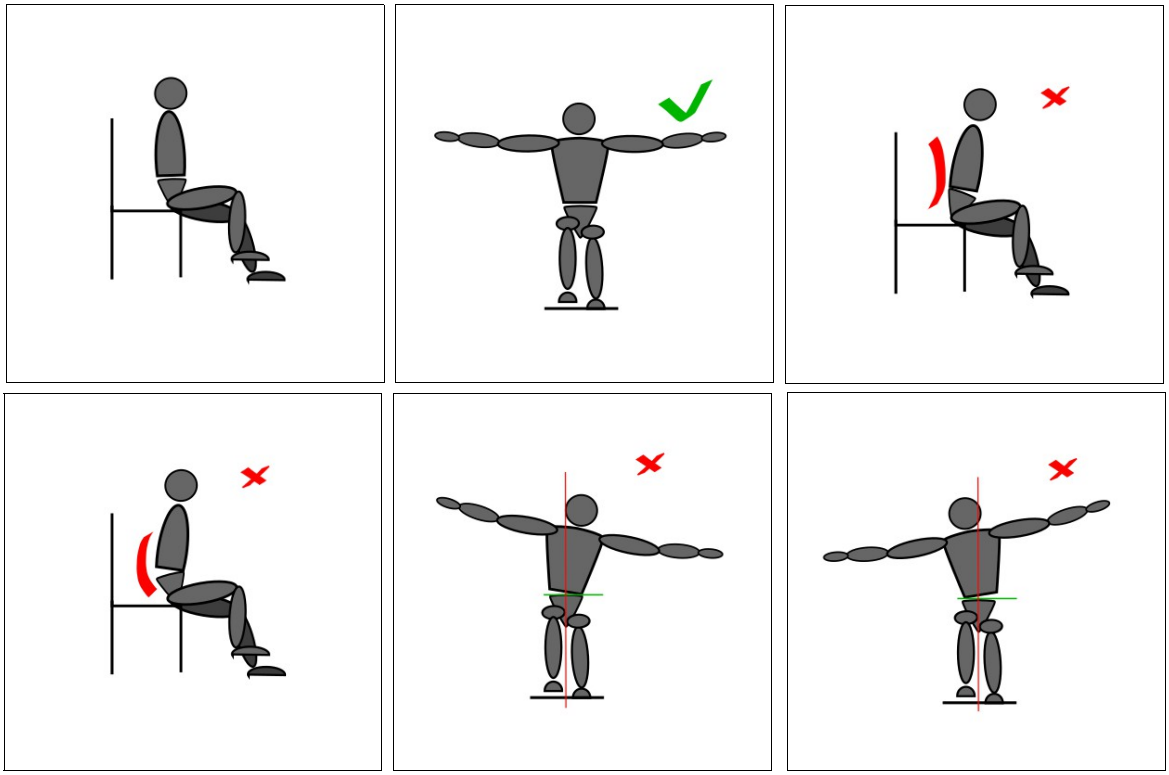
Seated Knee Lift

2 sets of 10reps/side

"Tight hip flexors" gets thrown around as a thing that people have. Even more frequently the idea that you should just "stretch them out" is toted as the solution. However, why did you get tight hips flexors to begin with? If you used them as a way to balance your trunk, muscles not designed for a stabilising role react in two ways. They become overactive and tight and their full range of motion is limited (they are always half on). Therefore you need to get your deep trunk stabilisers activated and give your hip flexors a break.

Sit directly over your sitbones on the edge of a chair. Lift both arms to the side; they will be your reference for any unwanted side to side movement. Take a deep breath (don't tense up) and lift one leg off the floor and hold it for 5seconds. Your arms should not have moved and no visible activity of your "abs" should be happening. You should be able to breathe effortlessly by expanding your ribcage. You should feel your lower abdominals working and the lifted leg should be straight (correct if not).

Once comfortable on the stable chair you can perform the Seated Knee Lift on an unstable surface (swissball, etc)



Greyhound

Greyhound 1.0

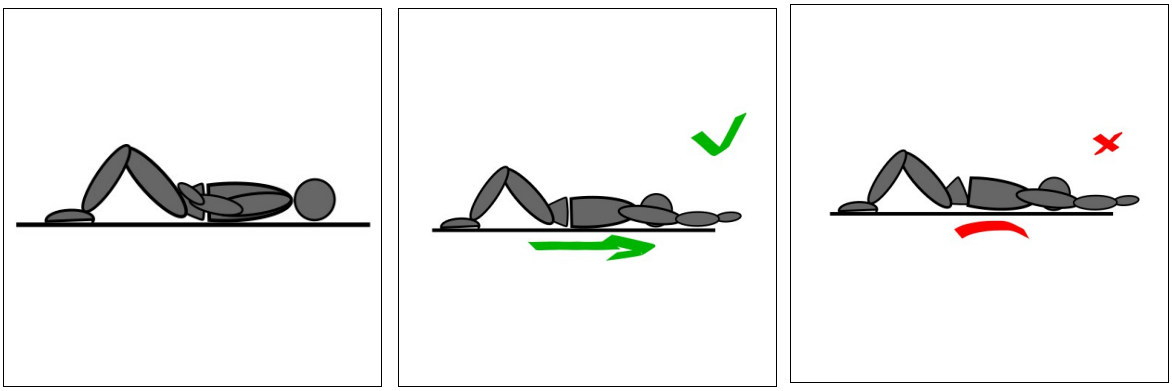
3 Sets of 10 reps/side

One of the easiest and hence most (ab)used way to stabilise your trunk/spine is by tensing your abdominal muscles. That is why core strength is labeled as extremely important, right? Not exactly. The deep abdominal stabilisers are perfectly suited for that and function at low energy cost and do NOT limit breathing (by tightening the ribcage). The Greyhound is an exercise to activate and increase your awareness of that important muscle group. In sports where maintaining a stable trunk while moving the arms and legs (rowing, cycling, etc) overactive abdominals limit breathing, fluency of movement and have a high energy cost.

There is a progression from Greyhound 1 to Greyhound 3 and adding increased skill and load demands afterwards. Follow the numbers=).

Lie on the floor with knees bent; feet flat on the floor. Put your palms on your lower abs, just above your navel. Feel your breathing. Release any unnecessary tension from your abs as you exhale. Do NOT force exhaling. While still breathing normally and relaxed, move one arm above your head - feel your stomach drop toward the floor just like a greyhound and your spine and rib cage lengthening.

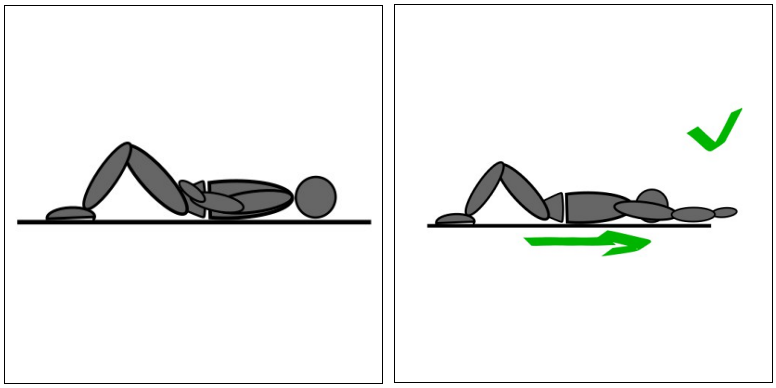
Think of releasing your spine rather than pinning your back towards the floor. Your back should not arch and you shouldn't need your abs. Once you can relax proceed to version 2.0



Greyhound 2.0

3 Sets of 10 reps/side

Same as above though this time take both arms overhead. You are still lengthening your spine. You should not feel like you are bracing your abdominals. Arms should move with almost no effort. Once you can do the above without tension, it is time to add some challenges - skill and load



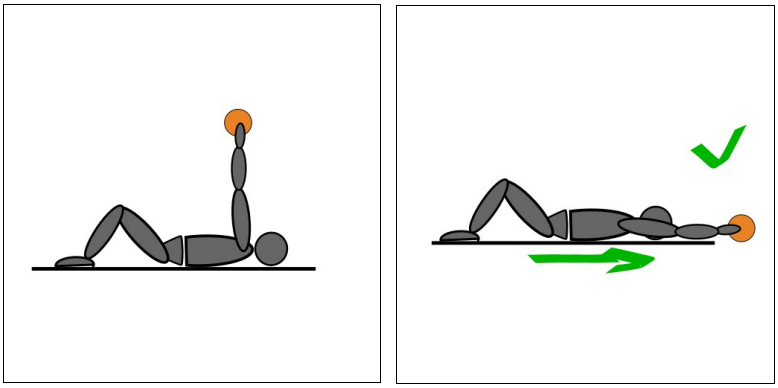
Greyhound 3.1: Increased Skill

3 Sets of 10 reps/side

Perform Greyhound 2.0 and once relaxed slide on heel on the floor trying to get it as far as possible from your fingertips

Greyhound 3.2: Increased Load

You need a small weight (1-2kg/2-4lbs) that you can hold with both hands. Perform Greyhound 2.0 and move the weight with as little effort as possible above your head. No abdominal tension and no back arching as the basic exercise.



Glute Bridge

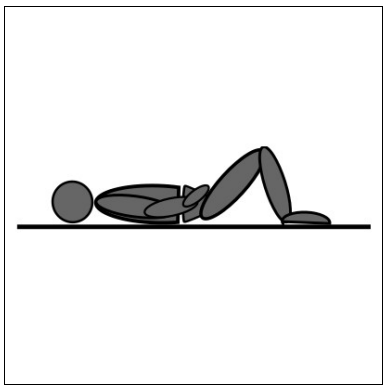
2 Sets of 5-10reps

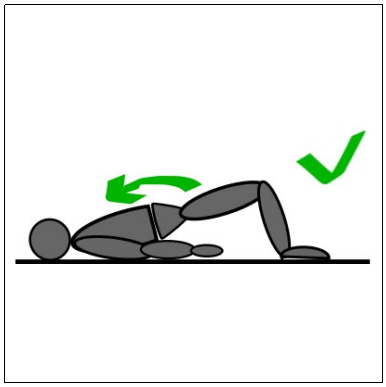
The glute bridge is among the most popular gluteal activation exercises. I don't have to repeat though that if a muscle is inactive others will take its role and as such there are wrong ways to perform the glute bridge. Among them are: using your back extensors and/or hamstrings.

Lie on the floor with knees bent and feet flat at shoulder width apart. Relax your abs, flatten your back by rolling your pelvis towards you and slowly lifting your butt of the floor. You are curling up rather than going vertically up. Hold the position for 10 seconds. You should feel your butt muscles doing most of the work.

You should NOT feel tension in your back muscles or hamstrings. If you feel any discomfort/tension there, lie down and try rolling the pelvis more towards you. As you go back to the starting position you are uncurling - ie putting one vertebrae after the other on the floor and not just straight up and down.

Experiment. If you have really inactive glutes it might take a session or two until you can actually control the tension in your lower back etc.



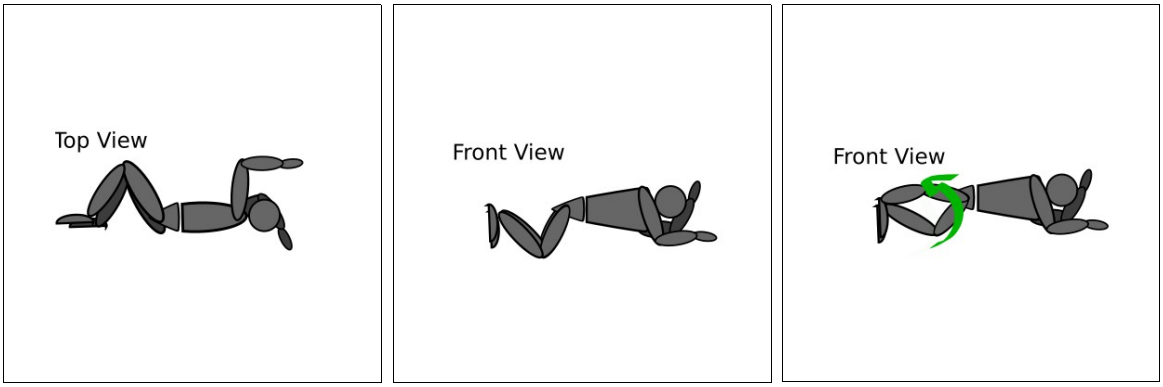


Clam

2 Sets of 5-10 reps/side

The gluteus medius or GMed is crucial for stabilising the pelvis ie keeping it level when you are switching balance (when walking, running, etc) from one leg to the other as well as internally rotating the thigh. If GMed is inactive you will use the big abdominal muscles in a stabilising role and limiting breathing and adding a lot of tension. The clam is the perfect exercise for isolating the GMed, though there are wrong ways to do it (such as too fast, wrong position etc. and I have done them as well..).

Lie sideways with the top arm in front of you. Your knees should be at around 90 degrees or less and when relaxed the top knee should overlap the bototm by about 5cm (2in). That way your pelvis is tilted forward, therefore you cannot use some of the bigger muscles (Gluteus maximus, etc) to compensate. Raise the top leg up (spread your knees like a clamshell) and hold it for a 10s count; you should feel tension at the top of your butt. Slowly come back to the starting position. If performed correctly the overlap should still be there. Only the leg should move, you shouldn't' be rolling your body back and forth.

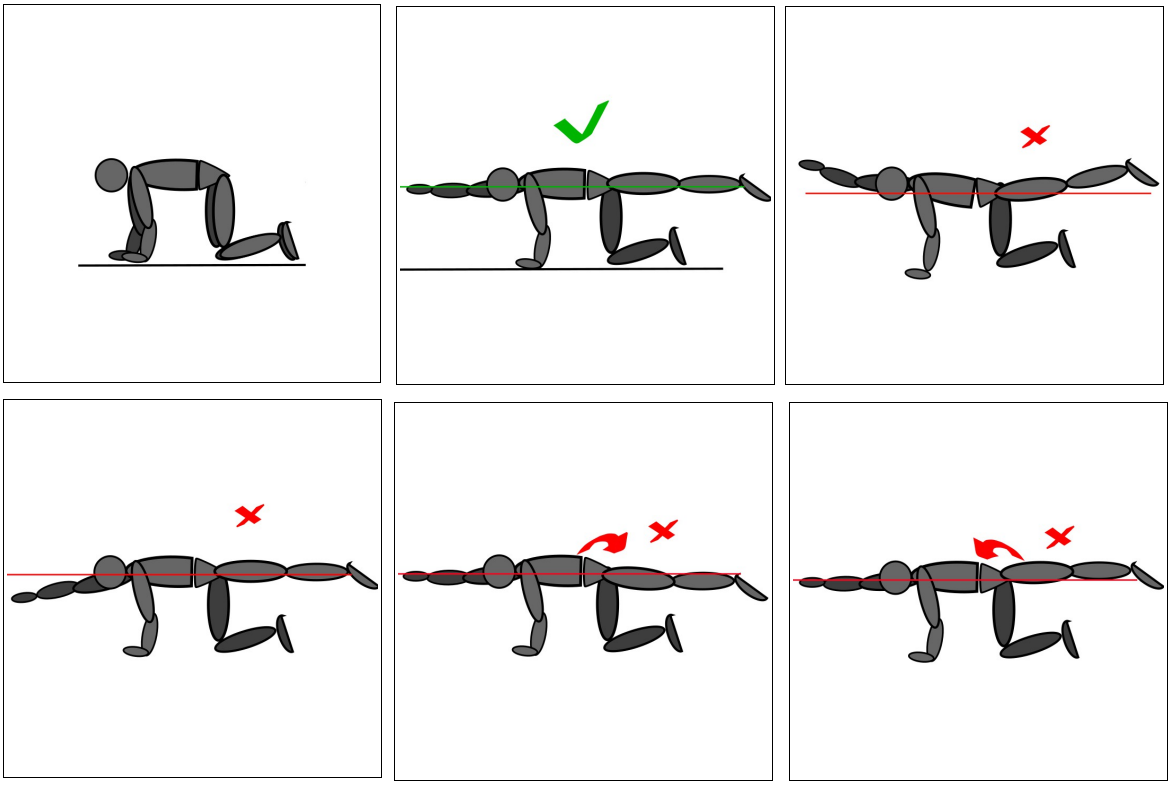


Superman

1-2 Sets of 5-10 Reps/side

This is yet another exercise that when performed correctly does wonders and when done wrong is of little value. The Superman coordinates the stabilisers along the entire body. As noted above you are looking for relaxed but firm position with no extra effort and no abdominal "tensing up," breathe freely.

Start on hands and knees with your head and neck in straight alignment with your spine; Hands under your shoulders, knees under your hips. Draw your belly upwards and press your chest up so that your spine is straight. Press directly out with one heel, straightening your leg; make sure your pelvis doesn't sag or drop. Stretch out the opposite arm as far away as you can - your shoulders shouldn't drop and your back should remain flat. Hold for 5 seconds and return to the quadruped position.



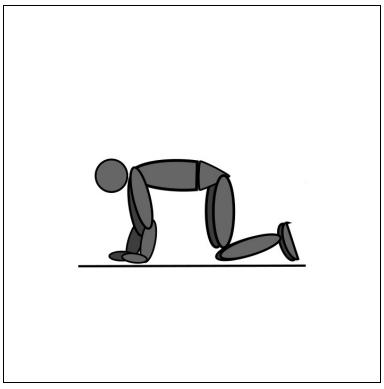
Variation 1: Start in your basic superman position with opposite arm and leg outstretched. Move your arm out to the side, then under your body, and straight out in ont again. Your trunk should remain still throughout the movement.

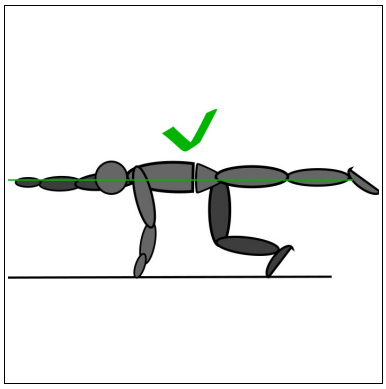
Variation 2: Increase speed of dynamic control. Perform the Superman as described above; however this time snap your arm and leg out into position and then hold for a moment to ensure that you have hit the target position. Bring your arm and knee back under your body. Keeping your back neutral, repeat this quick, accurate movement.

Once you can perform 10 PERFECT repetitions you are ready for the next level.

Hovering superman

Same position as above, however lift your knees off the ground. Same points as above apply. Hold for a 5 count.





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References

Joanne Elphinston - Stability, Sport and Performance Movement, Lotus Publishing, 2008
www.TheTallCyclist.com