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A VERY PEDESTRIAN SUBJECT – RACE WALK NOTES - George White

HOW SHOULD YOUR BODY LOOK WHEN RACE WALKING – Part 2 The Lower Body?

Hips

The hips are probably the most important component in good race walking. Unfortunately unless you are fortunate enough to be female or started race walking at an early age, I am afraid you are a little behind the 8 ball and generally will have to deal with a lack of flexibility.

The hips simultaneously perform a wide variety of complex functions, the 3 most important for race walking being - rotation, drop and tilt. These require dozens of different muscles in the back, abdomen, groin areas, and legs. To fully execute the motions of the hips, you should try to tilt the base of your pelvis forward. Hip rotation is through the spine and is the action used when doing the "twist". This is primarily used to extend stride length behind the body in order to delay push off. Delaying push off allows more time to move the body forward. Hip drop compensates for the rise in the body as you pivot over the support leg with a straight knee. However hip drop is not something to be overly conscious of, as it tends to occur naturally.

Correct horizontal and vertical hip movement can add as much as 200mm to stride length.

Knees

Race walking rules require the knee of the lead leg to be straight from the moment of contact until the leg passes under the body. When all else fails to allow proper straightening of the knees, you should probably slow down.

Feet

Ideally, you should make contact with the toes high off the ground and keep them up while you roll the foot. Not only does this help in straightening the leg but with less of the shoe touching the ground at any point of time it means less energy is lost (greater shoe contact means more compression and expansion of the shoe which uses energy). You should push off with your toes and you should let your foot skim the ground. This action requires some bending of the knee on the leg coming through. High quality foot rolling is directly related to speed. It is hard to have a good heel of front foot and toe of rear foot at a slow step rate.

Your feet should point forward rather than in or out (either of these shortens stride length!) and they should track very closely to a straight line (as if you are trying to walk on a beam no more than about 4" wide). By rolling up onto your toe it gives the other hip time to move forward allowing that foot to land directly in front of the body.

Stride rate and length
Walking speed is the product of stride length and stride rate - increase either and you will go faster. Increase speed initially by using a quicker stride rate, lengthen stride (behind the body) later.

A high stride rate can most easily be achieved by planting each heel no more than about a shoe length in front of the body's centre of mass. Train with higher step rates, beginning with short bursts at high rates.

You should only increase your stride length behind your body not in front of it. By using greater hip rotation to delay toe off, you should be able to push forward from the trailing foot longer - developing more power and speed, and achieving a longer stride length. Basically try to keep the rear foot in contact with the ground as long as possible. Tight hip flexors will prevent maximum stride length behind the body so stretching of these muscles is very important.

Having talked about stride rate and stride length determining speed we must now return to the arms. If you want to extend your stride length behind your body, swing your arms further behind your body - and the legs should follow suit. (To swing your arms further back, you may need to shorten the distance you swing them in front of your body.) Arm swing can seriously impact leg speed and concentration on correct arm action is therefore extremely important. Stepping up the aggressiveness of the arm swing should result in a more aggressive leg swing. However pushing the hands too far forward may cause overstriding at the front!