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Mindful Runner

Movement Assessment

Fred Richardson
MINDFUL RUNNER



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Movement Screen

The purpose of the movement assessment is to identify areas of functional weakness that will impact running. The assessment consists of the following 8 tests.

1. Dorsiflexion of the Ankle
2. Dorsiflexion of the big toe
3. Hip Extension
4. Hamstring
5. Bilateral Squat
6. Bridge
7. Big Toe Isolation
8. Single Leg Squat

Ankle Dorsiflexion

Sit on a chair so that your knee and ankle are bent at a 90 degree angle. Keeping your feet in exactly the same place slide your hips forward until the front of your knees is just past your toes.



Figure 1- Start Position and Finish Positions

Pass: if your heels can stay on the ground

Fail: if you cant keep one or both down

Dorsiflexion of the big toe

Keep your body in the same position as at the end of the Ankle Dorsiflexion test. Alternately grab the big toe on each foot and lifting them straight up while keep the ball of the foot on the ground.



Pass: if you can lift the big toe 30 degrees or more without the ball of the foot lifting.

Fail: if you can't lift the big toe 30 degrees or more without the ball of the foot lifting.

Hip Extension

Kneel on one knee so that the thigh of the leg you are kneeling on is vertical and the shin of the opposite leg is vertical. Using a broomstick or something similar tuck the tail bone under until the hollow of your back is touching the stick and the gap between your back and the stick is removed.





Pass: You feel nothing at the front of your thigh

Fail: You feel a stretch at the front of your thigh

Hamstring

Lying on your back raise your thigh and grip it between your hands as shown in the 1st image. Hold that position and straighten your whole leg. For distance runners you should be able to hold a 70 degree angle.



Figure 2 - Position 1



Figure 3 - Position 2

Pass: Able to hold a straight leg past 70 degrees

Fail: Can't get a straight leg past 70 degrees

Squat

Get someone to take a video of you doing 5 squats as deep as you can comfortably go. From the side - You should sit back in your squat with your butt going backwards. Shins must not go past 90 degrees (knees above ankles). From the front - Knees must track in the same direction as the feet (line the middle of your thigh up with the 2nd toe). Keep your back straight throughout.

You can send us your video for analysis – see the link at the end of this post.





Pass: Back straight, shins straight, heels stay on the ground, knees track on the 2nd toe

Fail: If you don't meet any of Back straight, shins straight, heels stay on the ground, knees track on the 2nd toe

Bridge

Lie on your back, knees bent heels against your butt. Put your arms straight up hands together and lift your hips to the sky. Raise one leg at a time. Think about which muscles feel like they are working.



Pass: If you feel your glutes working at the top of the hip raise. If you can keep your hips level when raising one leg

Fail: If you feel like you use your lower back or quads to raise the hips. If your hip drops when you raise one leg.

You can send us your video for analysis – see the link at the end of this post.

Single Leg Squat

Stand on one leg, place your hands on your hips and squat down as low as you can.



Score According to the sheet below.



Tick off everything you see, don't stop at the first one.

Scored Criteria	Implications	Score
Loss of foot contact	Foot stability issue	1
Trunk Shift	Hip or Foot	1
Pelvic Drop to one side	Hip Stability issue	1
Knee drives to the inside	Hip Stability issue	1
Hands come off hips	Gross Instability	1
Loss of Balance	Gross Instability	1
Total Score		



Tests and Solutions for each failure

Test	Pass	Fail	Initial Focus
Dorsiflexion of Ankle		Stiffness in front of Ankle	Talk to your Physio/Bio
		Tightness in Back	Stretch Achilles and massage calf
Dorsiflexion of big toe		Pain on top of toe	See your Physio/Bio
		Tight limited mobility	Massage Plantar Fascia
Hip Extension		Tightness in upper thigh	Couch Stretch
Hamstring		Can't reach 70 degrees in hip	Hamstring Stretch
Squat		Knees move forward	Squat Coaching
Bridge		Lower Back tight	Single leg Flexion, Knee to chest bridge, Donkey Kicks
		Pelvic Drop	Clamshell, Donkey Kick, Hip Hike
Single-leg squat		Lose forefoot contact	Toe Yoga, Single leg balances
		Trunk Shift	As above + Planks
		Knee dive inside	Clamshells, Hip Hike
		Pelvic Drop	Clamshells, Hip Hike
		Loss of balance	Single leg balance
		Hands off hips	Swiss Ball Rock n Roll