Gait Analysis:

Date: 20/1/2021 **Primary goal**: -

IMPRESSION

Dear Mr. Smith,

Your goal to - may be related to the changes noted in the report below. [Area for provider to write up a synopsis of key findings and how they relate to complaints/goals]

Please keep in mind that we are being critical of your form to identify potential factors leading to your symptoms, but you are by no means a “bad” runner! Your running characteristics and objective measures place you in [Category(s) of running impairments with brief explanation for each].

Focusing on improving your running characteristics with [select activity progressions and retraining plans] will significantly help you to achieve your goals.

Additionally, you may benefit from [free space to add in other recommendations] I would suggest a follow up gait assessment to track your progress in 8-12 weeks.

It was a pleasure to work with you and we will be glad to assist in any way that we can to get you back to the level of running you would like to achieve!

Thank you,

[Signature]

Running Readiness Assessment

Left			Right	
Mob	Stab		Mob	Stab
Mid Back			Mid Back	
Low Back			Low Back	
Hip			Hip	
Knee			Knee	
Ankle			Ankle	
Foot			Foot	

Good | Moderate | Attention

*Mob=Mobility

*Stab=Stability

Specific Tests

Toe Touch	Back Bend	Rotation	Balance	Squat
UHBE	SL Sit to Stand		Side Plank	Calf Raise
Toe Splay	Big Toe Ext		Big Toe Abd	Ankle ROM

DYNAMIC MEASURES

[Speed: 6.7 **mph**] [Category: Overstrider Cadence]

Cadence: **140.06 spm**

Cadence is the number of steps per minute you take measured in Steps Per Minute (spm)

Your cadence falls into the red category. A lower cadence can result in increased stress on the body. Our body does well absorbing force, but it can only handles so much at a given time. Your slower cadence may lead to a higher rate of force than your body can handle. Small changes of 5-10% increase above you self selected cadence can significantly improve the rate of force.

Vertical oscillation: **10.34 cm**

Vertical Oscillation is the amount of motion spent going up and down.

Your vertical oscillation falls into the red category. Excessive up and down motion can result in increased stress on the body, as well as inefficient running. Small changes in cadence of 5-10% increase above you self selected cadence and focusing on a forward lean while running can significantly improve the rate of force.

Left Ground Contact Time:
386.87 msec

Right Ground Contact Time:
331.33 msec

Ground Contact time is the time spent with your foot on the ground in milliseconds.

Your ground contact time falls into the red category. More time with the foot on the ground while running can result in increased absorption of forces and decreased performance.

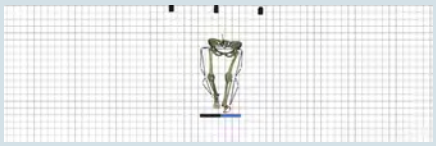
Left Leg Stiffness:
5.06 kN/m

Right Leg Stiffness:
38.55 kN/m

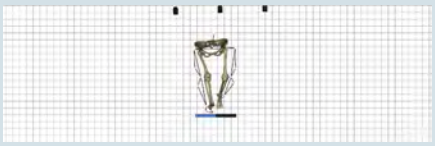
Initial Contact (IC) is the point at which your foot makes contact with the ground. Several factors during IC play a large roll in performance, efficiency, and injury. The measurements below rate to the quality of your initial contact movement pattern.

One of the most commonly looked at variables in running occurs during this IC phase is strike pattern. Strike pattern describes which part of your foot makes contact with the ground first. You have a HEEL foot strike pattern.

Below you will find frontal plane and sagittal plane view of your running.



POSTERIOR VIEW



ANTERIOR VIEW

LATERAL VIEW

Left Foot Inclination: **16.22º (DF)**

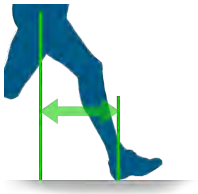
Right Foot Inclination: **17.56º (DF)**

Foot Inclination is the angle of your foot in relationship to the ground.

Left Tibial Inclination: **11º (flex)**

Right Tibial Inclination: **16º (flex)**

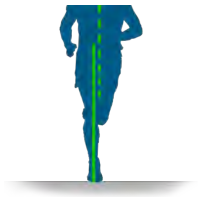
Tibial Inclination is the angle of your shin bone in relationship to the ground.



Left Strike from COM: **34 cm (fwd)**

Right Strike from COM: **35 cm (fwd)**

The **distance from your Center of Mass (COM) to where your foot hits the ground** is a measure that is related to the forces going through your lower body



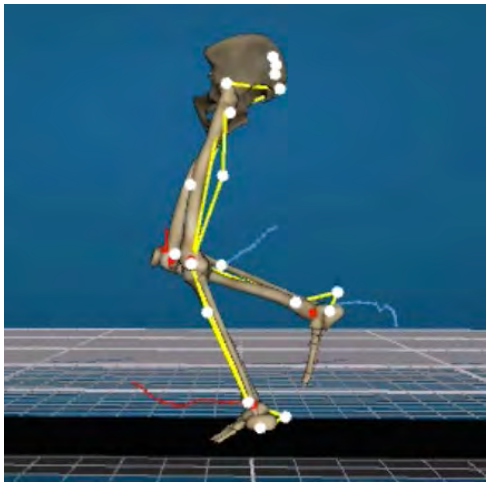
Left Crossover: **16.27 cm (abd)**

Right Crossover: **7.08 cm (abd)**

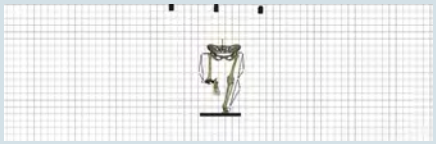
Crossover:

Crossover **describes the position of the foot at IC in relationship to the midline of your body.**

Mid Stance (MS) is the second portion of gait that we look at, and is the point at which the foot is directly underneath of your hip. Most of the forces from striking the ground are absorbed between IC and MS. The goal during Mid stance is to avoid collapsing towards the ground excessively. Several factors during MS play a large roll in performance, efficiency, and injury.

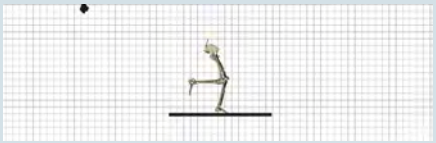


Below you will find frontal plane and sagittal plane views of your running at **Mid Stance**.

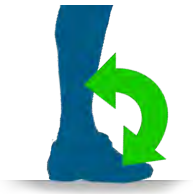


POSTERIOR VIEW

ANTERIOR VIEW



LATERAL VIEW



Left Ankle Dorsiflexion: **4.79° (DF)**

Right Ankle Dorsiflexion: **0.52° (DF)**

Ankle Dorsiflexion measured at mid stance is a gauge of how much your body is sinking in to the ground.

Left Foot Pronation: **7.7° (pron)**

Right Foot Pronation: **10.88° (pron)**

Ankle pronation is a normal part of running. When we pronate, it allows our foot to come in contact with the ground and absorb forces.

Left Peak Knee Flexion: **38.95° (flex)**

Right Peak Knee Flexion: **37.23° (flex)**

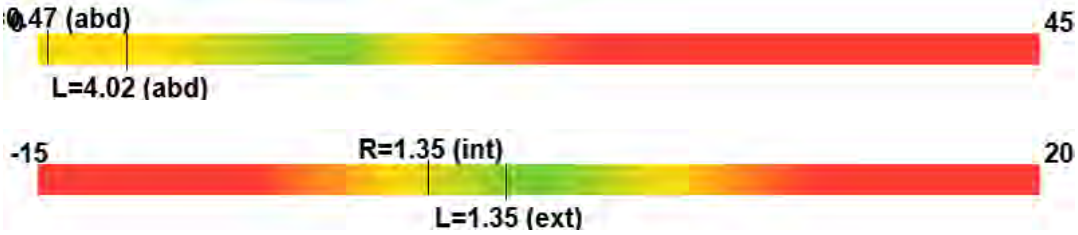
Peak Knee Flexion is another measure at mid stance that is a gauge of how much your body is sinking in to the ground.

Left Peak Hip ADD: **4.02° (abd)**

Left Peak Hip IR: **1.35° (ext)**

Right Peak Hip ADD: **0.47° (abd)**

Right Peak Hip IR: **1.35° (int)**



Hip Adduction and Internal Rotation measure how the body is doing with absorbing forces at mid stance

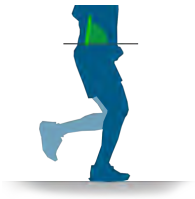
Left Contralateral Pelvic Drop: **3.96° (lft up)**

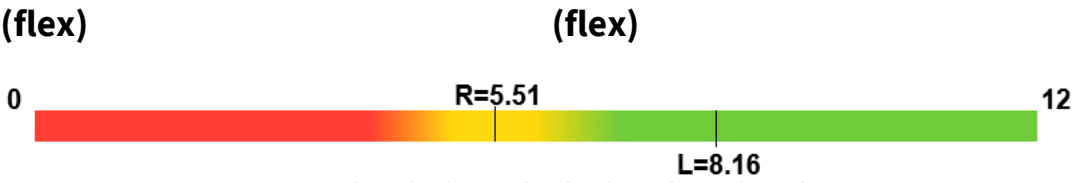
Right Contralateral Pelvic Drop: **0.68° (lft up)**

Contralateral Pelvic Drop is often see in association with excessive hip, knee and ankle collapse.

Left Forward Lean Angle: **8°**

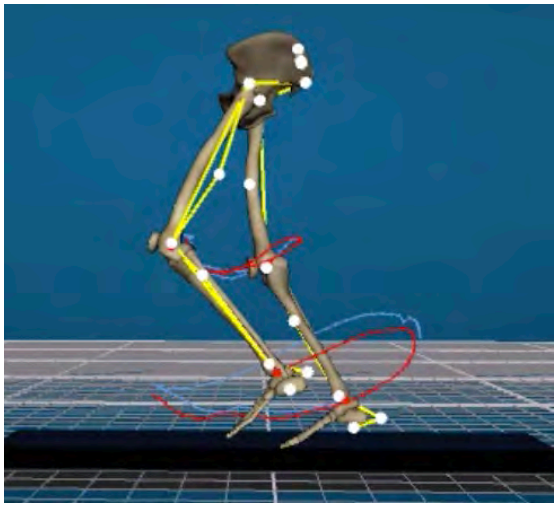
Right Forward Lean Angle: **6°**



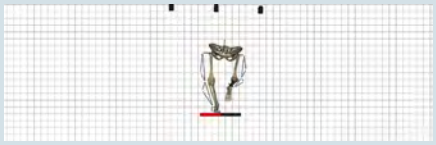


Forward Lean Angle measures how far forward or backwards you lean during running.

We look at **Swing Phase** to see how the leg is being positioned to make contact with the ground. Alignment during swing phase can set up what happens when the foot is on the ground. Several factors during Swing Phase play a large roll in performance, efficiency, and injury.



Below you will find frontal plane and sagittal plane views of your running at **Mid Swing**.



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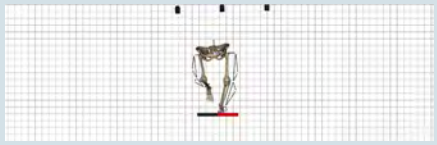
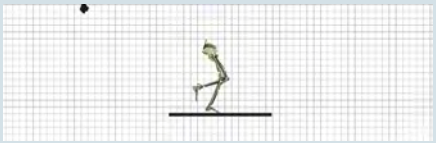


ANTERIOR VIEW



LATERAL VIEW

Left Hip flexion: **28.77° (flex)** Right Hip flexion: **21.97° (flex)**

Hip flexion at mid swing has been linked to the rate at which the foot accelerates towards the ground at IC. If you are limited in hip flexion, it may change how you absorb forces on the ground. Normal range HF = 10-20°.