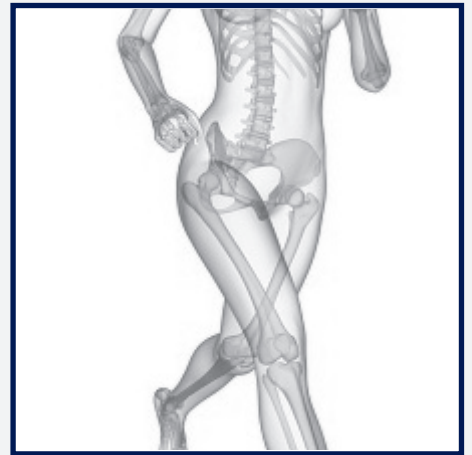


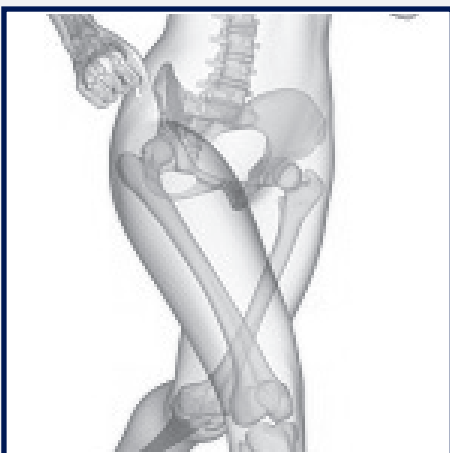


YOUR RUN3D REPORT

Accurate biomechanical data you can trust



*Everything you
need to know
about your
running!*



Client Name: Emma Neachell

Date of Birth: 01/05/1979

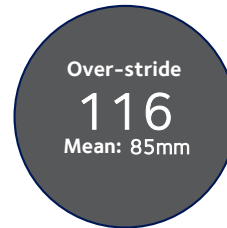
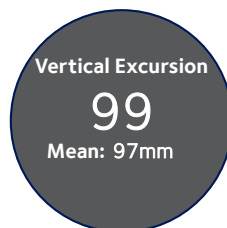
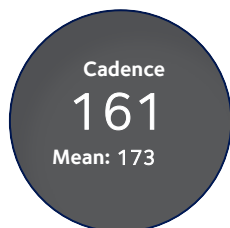
Clinician Name: admin

Assessment Date: 28/01/2020

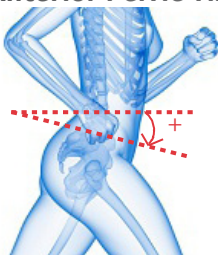
YOUR GAIT ANALYSIS SUMMARY



Trial Conditions: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial)



Anterior Pelvic Tilt

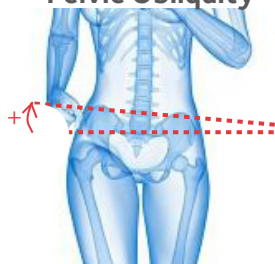


The amount the front of the pelvis tips forwards. Above if too much forwards tilt.



Your anterior pelvic tilt is within normal range for both legs.

Pelvic Obliquity

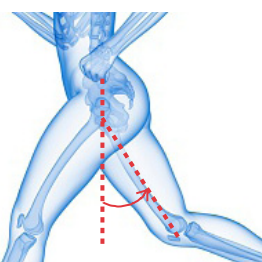


The side-to-side position of the pelvis. High when stance-side rises and other side drops.



Your pelvic obliquity is below normal range for your left leg and within normal range for your right leg. We recommend that you improve the mobility of your hips, pelvis and lumbar spine.

Hip Extension at Toe-Off

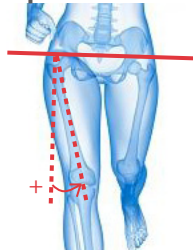


The amount your thigh extends behind the pelvis at the time of toe-off.



Your hip extension at toe-off is within normal range for both legs.

Hip Adduction



The amount your thigh collapses inwards towards the midline of the body.



Your hip adduction is above normal range for both legs. We recommend that you improve the strength of your hip and pelvic stabilisers, and consider gait retraining.

Hip Internal Rotation

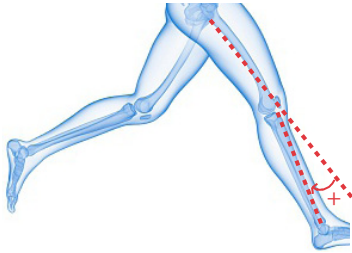


The amount your thigh twists inwards in relation to the pelvis.



Your hip internal rotation is below normal range for your left leg and within normal range for your right leg. We recommend that you increase the flexibility of your hip rotators and improve pelvic and hip flexor mobility.

Knee Flexion at Foot-Strike

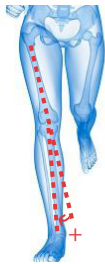


The amount your knee bends when your foot strikes the ground.



Your knee flexion at foot-strike is below normal range for your left leg and within normal range for your right leg. We recommend that you increase your cadence and bring your foot closer to your centre of mass at foot-strike.

Knee Abduction



The amount your knee collapses inwards towards the midline of your body.



Your knee abduction is below normal range for both legs. We recommend that you improve the mobility of lateral hip and leg structures, such as the hip rotators, ITB and TFL.

Dorsiflexion at Foot-Strike



The amount your ankle bends upwards or downwards as your foot strikes the ground



Your dorsiflexion at foot-strike is within normal range for both legs.

Maximum Eversion



The maximum amount that your ankle everts (pronates) as your foot is on the ground.

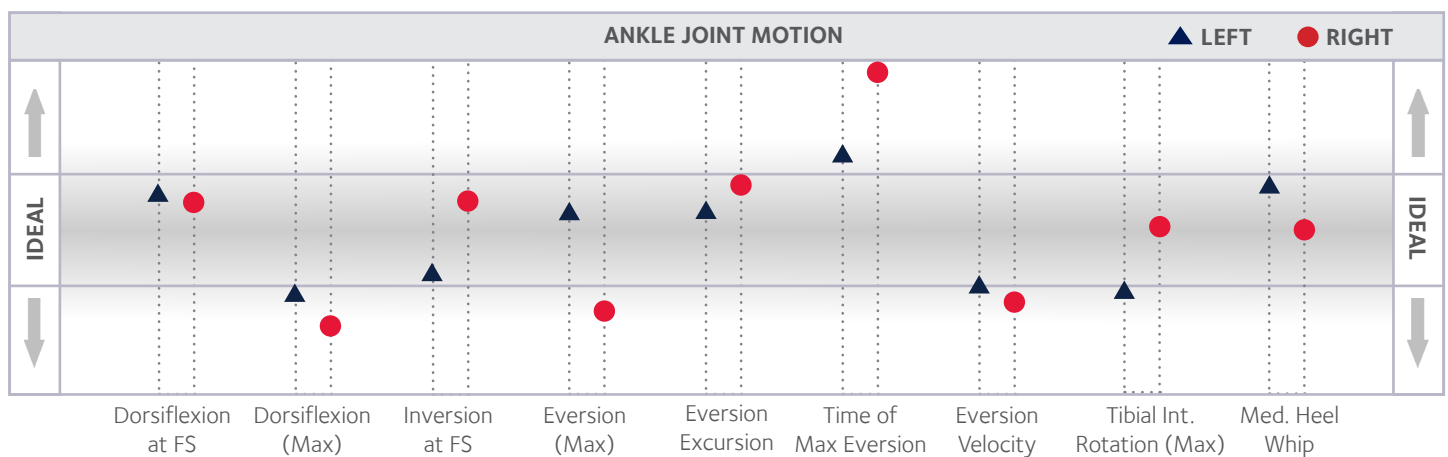
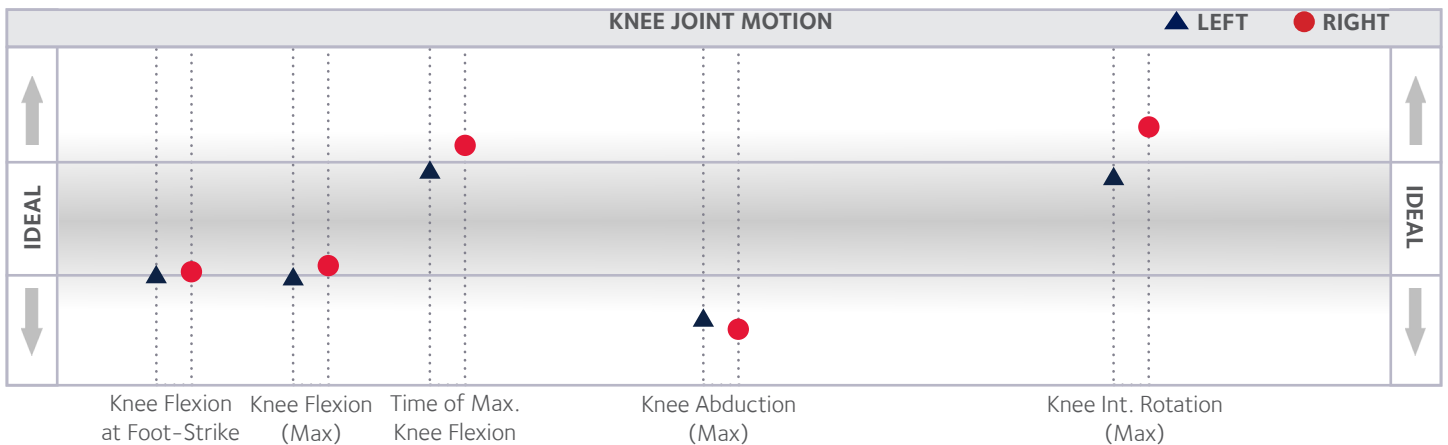
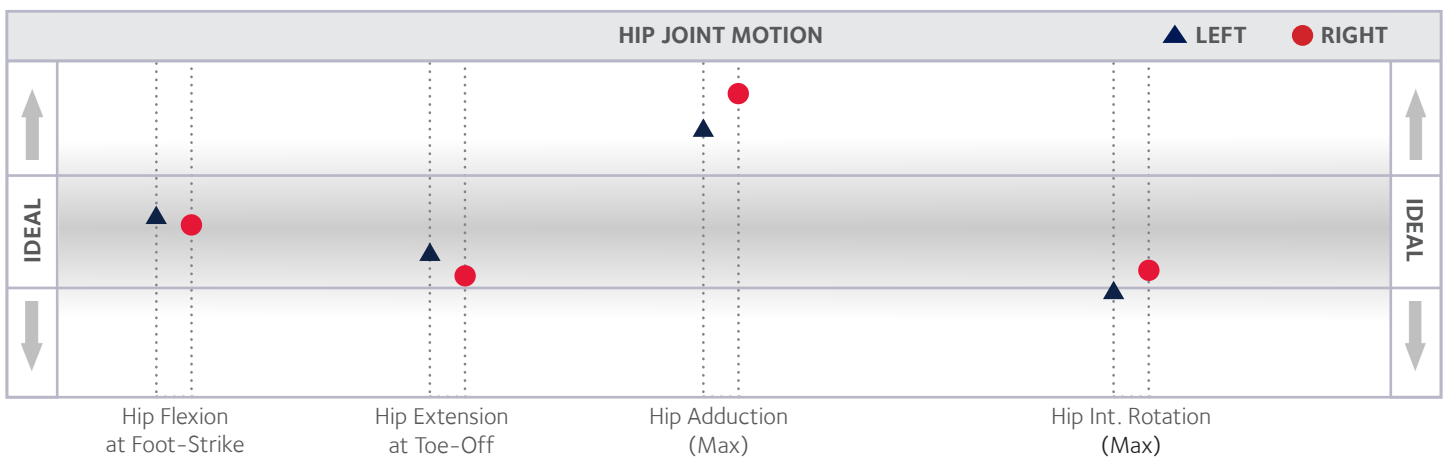
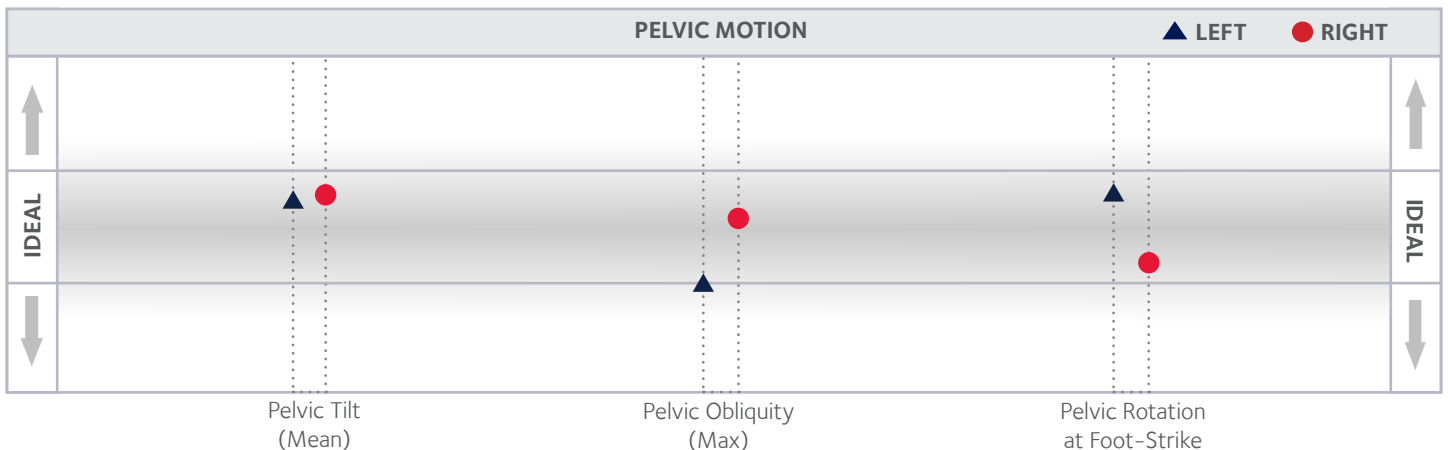


Your maximum eversion is within normal range for your left leg and below normal range for your right leg. We recommend that you improve the mobility of your ankle joint and flexibility of your lower leg muscles. Consider a neutral shoe.

GAIT ANALYSIS KEY PARAMETERS



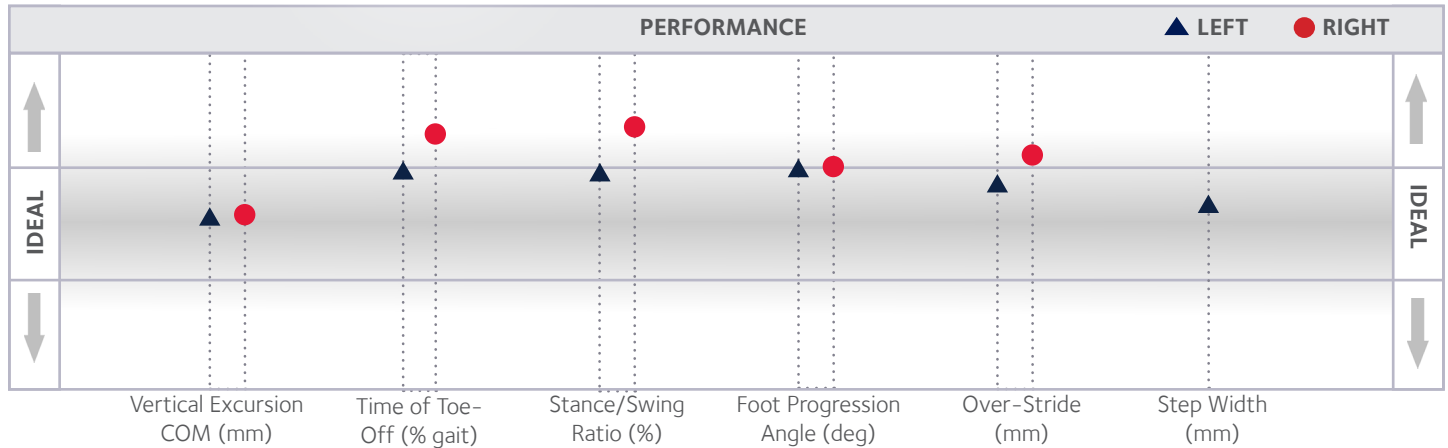
Trial Conditions: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial)



GAIT ANALYSIS KEY PARAMETERS cont'd



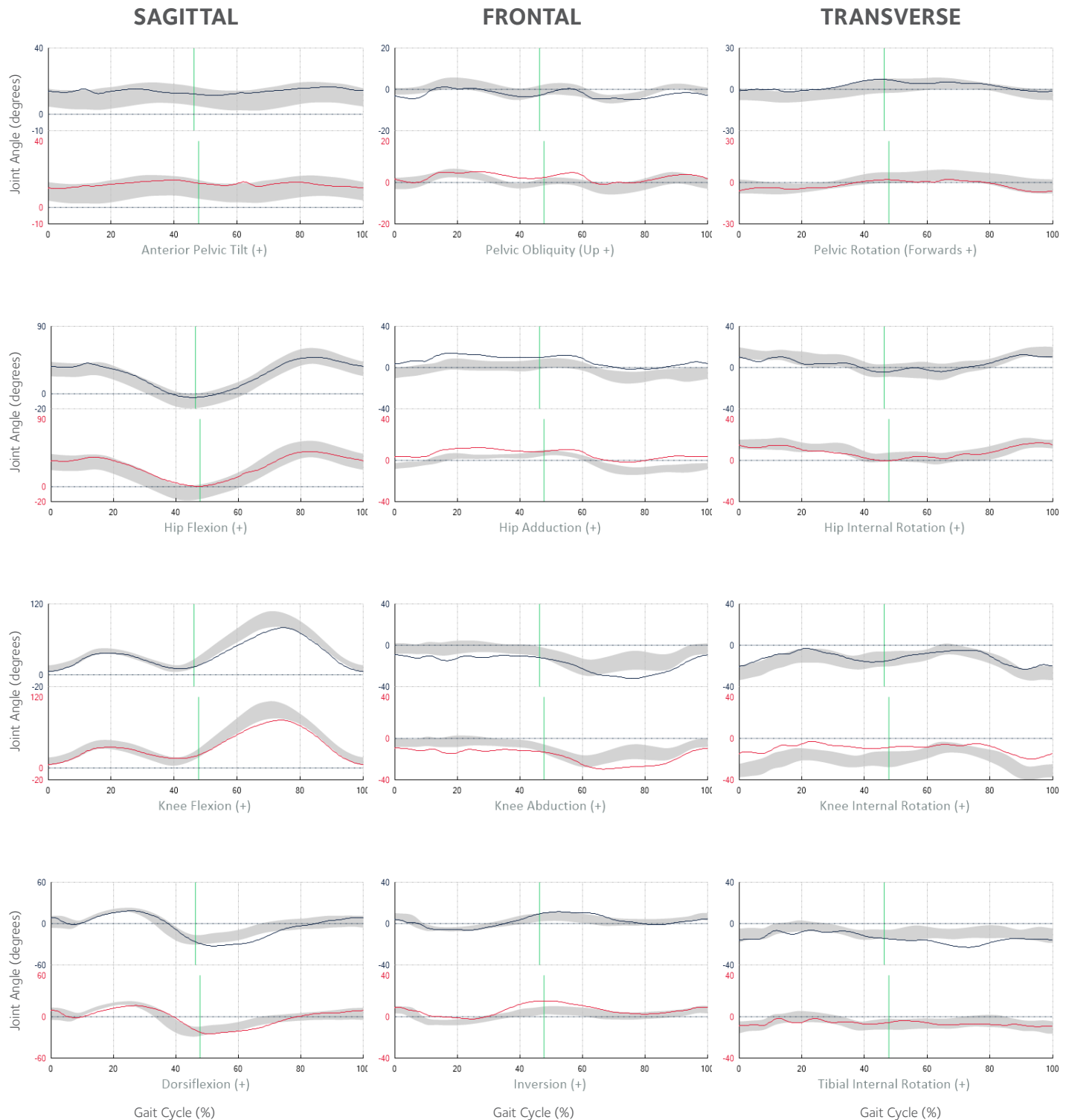
Trial Conditions: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial)



PARAMETER Units in Degrees Unless Specified Otherwise	YOUR RESULT (Mean (STD)) L R		CONTROLS (Mean) L R	
Pelvic Tilt (mean stance)	13.6 (0.6)	14.0 (0.5)	10.7	10.6
Pelvic Obliquity (max stance)	1.0 (0.6)	5.2 (0.6)	3.4	4.9
Pelvic Rotation at Foot-Strike	-1.3 (1.1)	-6.0 (1.1)	-3.7	-2.8
Hip Flexion at Foot-Strike	35.9 (1.1)	34.2 (0.9)	33.0	32.9
Hip Extension at Toe-Off	-5.2 (1.1)	0.2 (0.8)	-8.9	-7.9
Hip Adduction (max stance)	13.8 (0.5)	12.1 (0.6)	4.5	6.3
Hip Internal Rotation (max stance)	10.7 (0.8)	15.1 (0.9)	15.6	18.5
Knee Flexion at Foot-Strike	4.9 (1.1)	5.4 (1.3)	10.7	11.7
Knee Flexion (max stance)	36.2 (0.9)	34.4 (1.1)	41.2	41.0
Time of Max Knee Flexion (% gait)	19.3 (0.6)	19.6 (1.6)	17.9	17.4
Knee Abduction (max)	-9.4 (0.5)	-9.7 (0.6)	0.6	-0.4
Knee Internal Rotation (max)	-3.2 (0.8)	-3.1 (0.6)	-8.1	-13.5
Dorsiflexion at Foot-Strike	8.5 (0.5)	8.8 (0.6)	2.7	4.4
Dorsiflexion (max stance)	18.1 (0.8)	15.7 (0.7)	21.1	20.6
Dorsiflexion at Toe-Off	-26.5 (1.7)	-22.8 (1.3)	-21.9	-20.1
Inversion at Foot-Strike	3.8 (1.0)	8.7 (0.6)	6.5	6.9
Eversion (max stance)	6.9 (0.9)	2.5 (0.9)	6.2	6.4
Time of max eversion (% gait)	21.9 (3.3)	24.8 (0.8)	16.4	14.4
Eversion Excursion	15.9 (2.1)	17.6 (1.9)	14.5	14.3
Eversion Velocity (degrees/second)	184.3 (21.3)	151.5 (28.5)	287.1	322.8
Tibial Internal Rotation (max)	-7.1 (0.7)	-1.8 (0.8)	-3.4	-2.0
Medial Heel-Whip	5.0 (2.4)	-2.3 (2.4)	-0.1	-2.4
Static Vertical Off-Set Angle	0.0 (0.0)	0.0 (0.0)	10.5	9.5
Vertical excursion centre of mass (mm)	99.5 (4.6)	100.5 (3.7)	97.3	97.7
Time of toe-off (% gait)	46.2 (1.1)	47.7 (0.9)	42.9	42.7
Stance/Swing Ratio (%)	86.1 (3.8)	91.2 (3.4)	75.9	74.9
Foot Progression Angle	22.9 (0.8)	24.0 (1.1)	15.0	15.3
Over-Stride (mm)	116.2 (10.1)	131.9 (9.2)	85.3	87.1
Step-Width (mm)	105.46 (17.26)		100.13	
Cadence (Steps/Minute)	160.91		172.95	

Trial Conditions: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial)

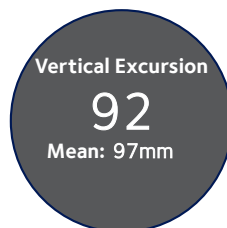
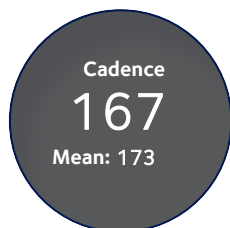
— Left Leg — Right Leg Uninjured Controls



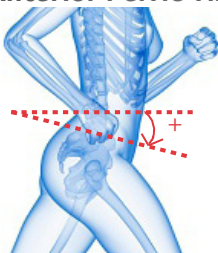
YOUR GAIT ANALYSIS SUMMARY



Trial Conditions: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial) – pinktrainers



Anterior Pelvic Tilt

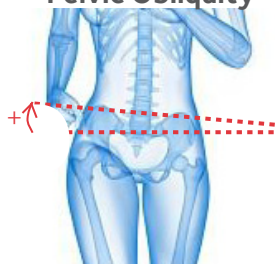


The amount the front of the pelvis tips forwards. Above if too much forwards tilt.



Your anterior pelvic tilt is above normal range for both legs. We recommend that you improve the ability to posteriorly tilt your pelvis through mobilisation exercises and hip flexor stretches.

Pelvic Obliquity

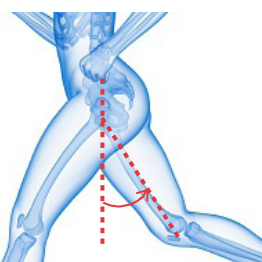


The side-to-side position of the pelvis. High when stance-side rises and other side drops.



Your pelvic obliquity is below normal range for your left leg and above normal range for your right leg. We recommend that you improve the mobility of your hips, pelvis and lumbar spine. In addition, we recommend that you improve the control of your hips and pelvis through strengthening and stabilisation exercises. Consider gait retraining.

Hip Extension at Toe-Off

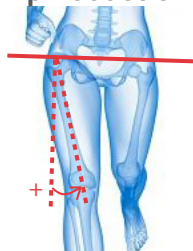


The amount your thigh extends behind the pelvis at the time of toe-off.



Your hip extension at toe-off is below normal range for both legs. We recommend that you increase the flexibility of your hip flexors and strengthen the posterior chain.

Hip Adduction



The amount your thigh collapses inwards towards the midline of the body.



Your hip adduction is within normal range for your left leg and above normal range for your right leg. We recommend that you improve the strength of your hip and pelvic stabilisers, and consider gait retraining.

Hip Internal Rotation

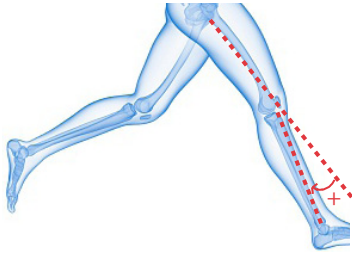


The amount your thigh twists inwards in relation to the pelvis.



Your hip internal rotation is within normal range for both legs.

Knee Flexion at Foot-Strike

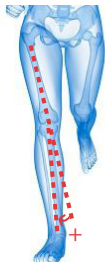


The amount your knee bends when your foot strikes the ground.



Your knee flexion at foot-strike is below normal range for your left leg and within normal range for your right leg. We recommend that you increase your cadence and bring your foot closer to your centre of mass at foot-strike.

Knee Abduction



The amount your knee collapses inwards towards the midline of your body.



Your knee abduction is below normal range for both legs. We recommend that you improve the mobility of lateral hip and leg structures, such as the hip rotators, ITB and TFL.

Dorsiflexion at Foot-Strike



The amount your ankle bends upwards or downwards as your foot strikes the ground



Your dorsiflexion at foot-strike is within normal range for both legs.

Maximum Eversion



The maximum amount that your ankle everts (pronates) as your foot is on the ground.

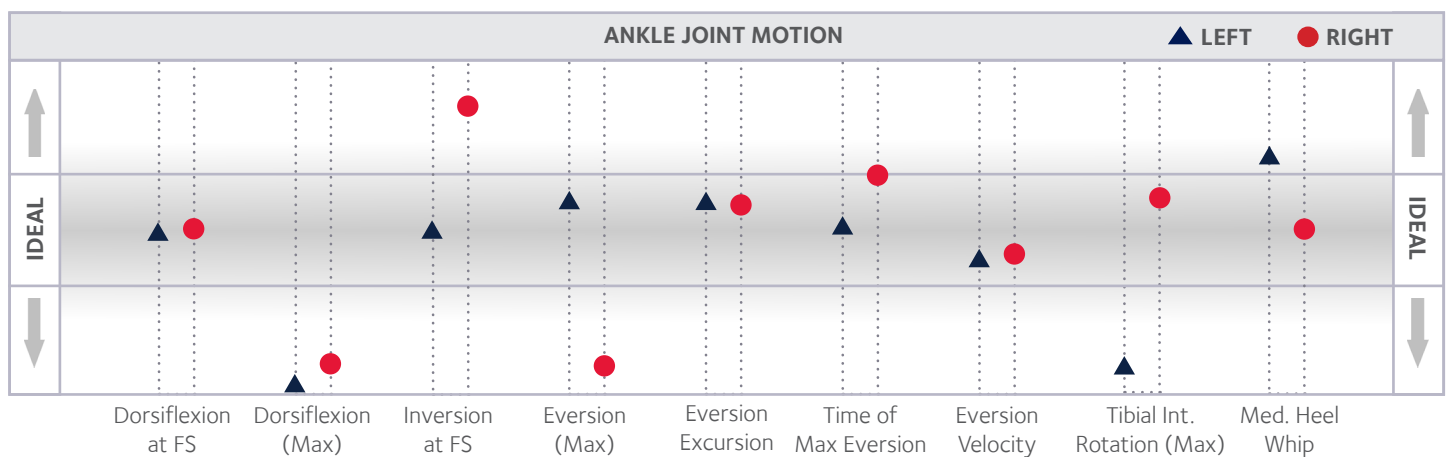
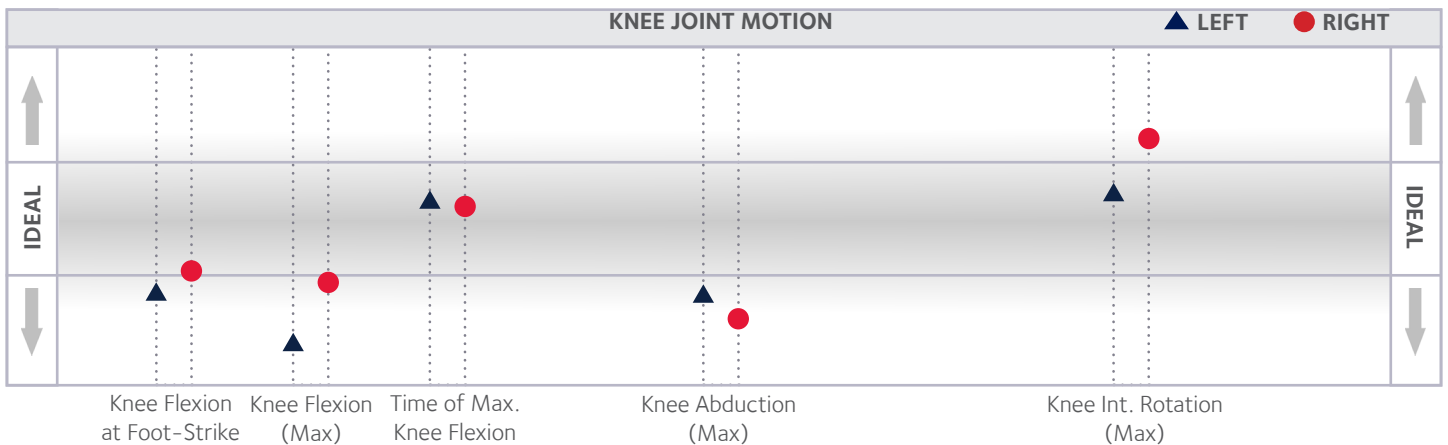
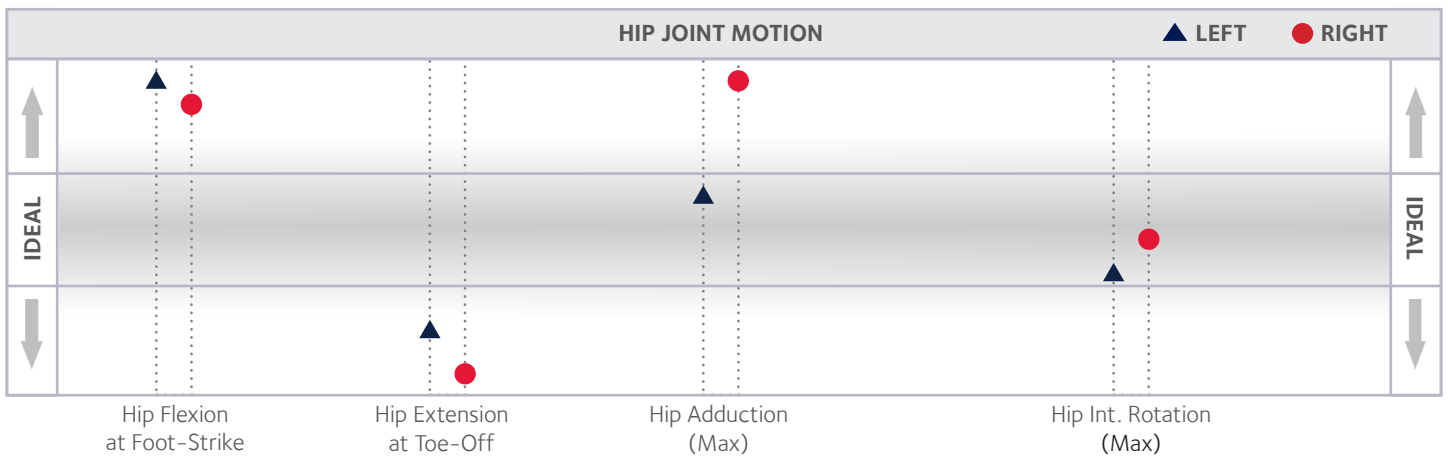
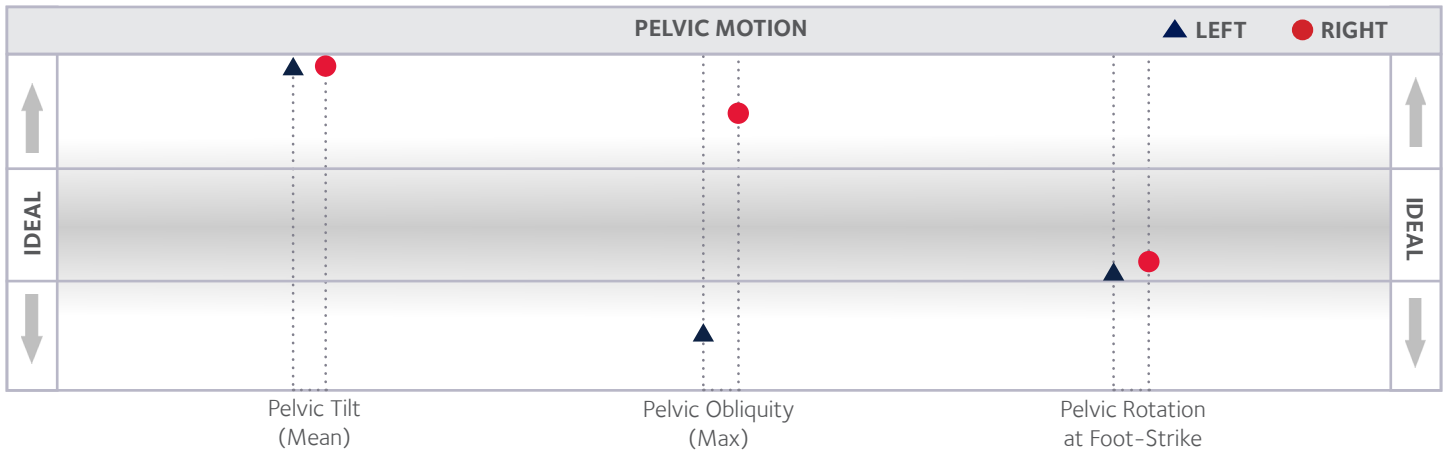


Your maximum eversion is within normal range for your left leg and below normal range for your right leg. We recommend that you improve the mobility of your ankle joint and flexibility of your lower leg muscles. Consider a neutral shoe.

GAIT ANALYSIS KEY PARAMETERS



Trial Conditions: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial) - pinktrainers



GAIT ANALYSIS KEY PARAMETERS cont'd



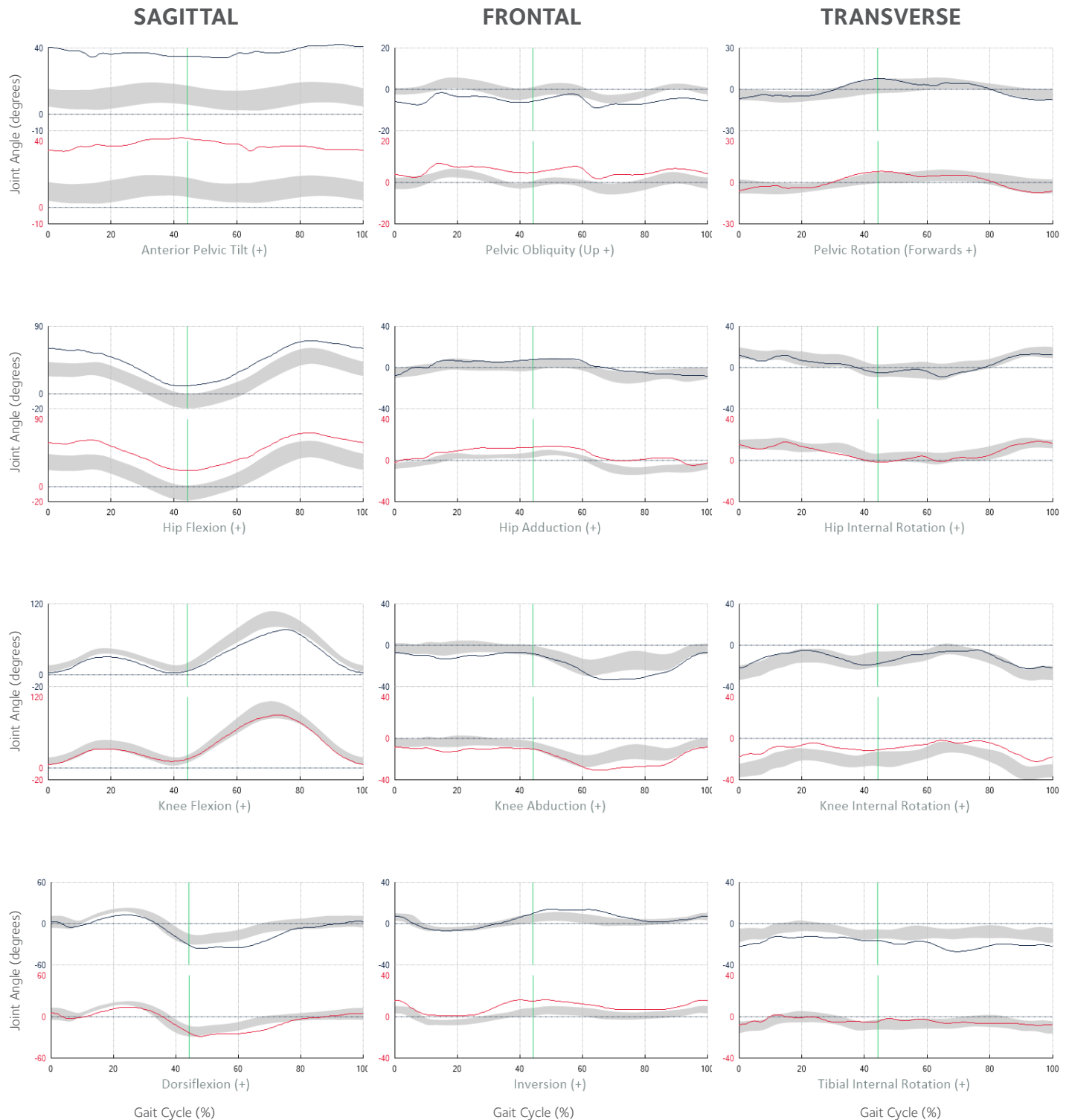
Trial Conditions: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial) - pinktrainers



PARAMETER Units in Degrees Unless Specified Otherwise	YOUR RESULT (Mean (STD))		CONTROLS (Mean)	
	L	R	L	R
Pelvic Tilt (mean stance)	36.7 (0.8)	37.9 (0.8)	10.7	10.6
Pelvic Obliquity (max stance)	-1.7 (0.6)	9.2 (0.8)	3.4	4.9
Pelvic Rotation at Foot-Strike	-7.0 (1.0)	-6.1 (1.4)	-3.7	-2.8
Hip Flexion at Foot-Strike	60.1 (1.5)	58.1 (1.4)	33.0	32.9
Hip Extension at Toe-Off	10.2 (1.2)	20.8 (1.3)	-8.9	-7.9
Hip Adduction (max stance)	7.5 (0.5)	12.6 (0.6)	4.5	6.3
Hip Internal Rotation (max stance)	12.0 (0.9)	17.6 (1.0)	15.6	18.5
Knee Flexion at Foot-Strike	2.9 (1.2)	5.5 (1.3)	10.7	11.7
Knee Flexion (max stance)	29.7 (0.9)	31.9 (1.3)	41.2	41.0
Time of Max Knee Flexion (% gait)	18.4 (1.4)	17.7 (1.5)	17.9	17.4
Knee Abduction (max)	-6.8 (0.5)	-8.7 (0.5)	0.6	-0.4
Knee Internal Rotation (max)	-5.2 (0.8)	-4.5 (0.5)	-8.1	-13.5
Dorsiflexion at Foot-Strike	2.5 (0.6)	4.6 (0.6)	2.7	4.4
Dorsiflexion (max stance)	12.1 (0.9)	13.6 (0.8)	21.1	20.6
Dorsiflexion at Toe-Off	-31.3 (2.5)	-23.4 (1.8)	-21.9	-20.1
Inversion at Foot-Strike	6.6 (0.9)	15.2 (1.0)	6.5	6.9
Eversion (max stance)	7.3 (1.1)	-0.3 (0.9)	6.2	6.4
Time of max eversion (% gait)	16.7 (2.0)	17.8 (1.8)	16.4	14.4
Eversion Excursion	16.6 (1.7)	16.1 (1.3)	14.5	14.3
Eversion Velocity (degrees/second)	234.0 (34.1)	267.7 (30.7)	287.1	322.8
Tibial Internal Rotation (max)	-12.4 (0.7)	-0.1 (0.1)	-3.4	-2.0
Medial Heel-Whip	8.5 (1.9)	-2.3 (3.1)	-0.1	-2.4
Static Vertical Off-Set Angle	6.3 (0.0)	9.1 (0.0)	10.5	9.5
Vertical excursion centre of mass (mm)	92.1 (4.4)	92.8 (4.6)	97.3	97.7
Time of toe-off (% gait)	44.1 (1.5)	44.2 (1.3)	42.9	42.7
Stance/Swing Ratio (%)	79.0 (4.7)	79.4 (4.1)	75.9	74.9
Foot Progression Angle	19.2 (1.4)	21.4 (1.0)	15.0	15.3
Over-Stride (mm)	150.1 (14.9)	156.9 (9.6)	85.3	87.1
Step-Width (mm)	123.35 (19.47)		100.13	
Cadence (Steps/Minute)	167.15		172.95	

Trial Conditions: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial) – pinktrainers

— Left Leg — Right Leg Uninjured Controls

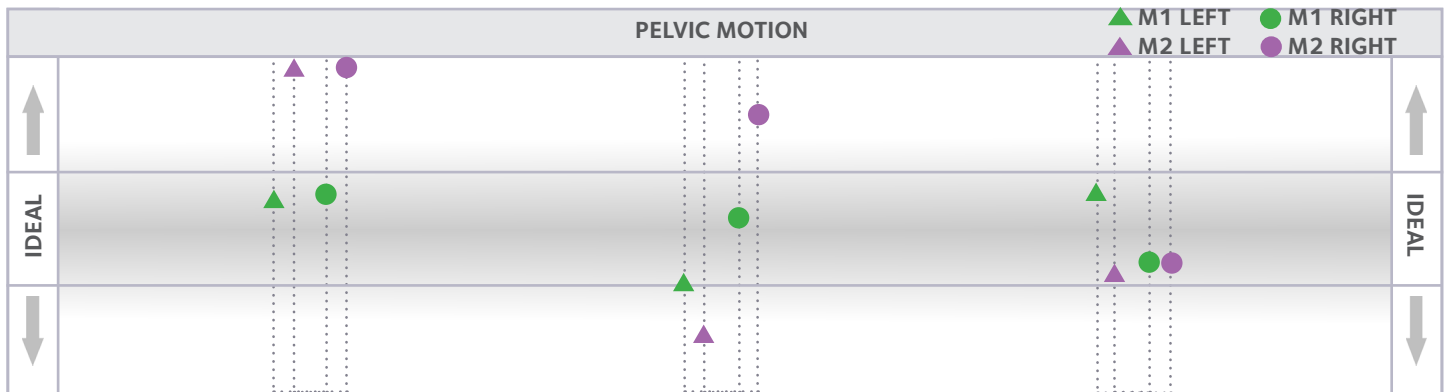


GAIT ANALYSIS COMPARISON



Trial Conditions Measurement 1: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial)

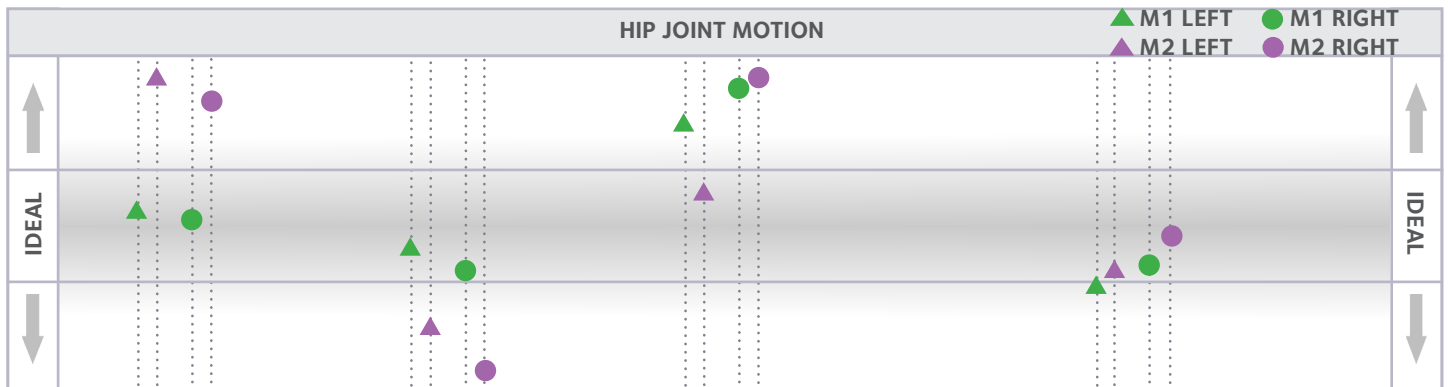
Trial Conditions Measurement 2: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial) - pinktrainers



Pelvic Tilt (Mean)

Pelvic Obliquity (Max)

Pelvic Rotation at Foot-Strike

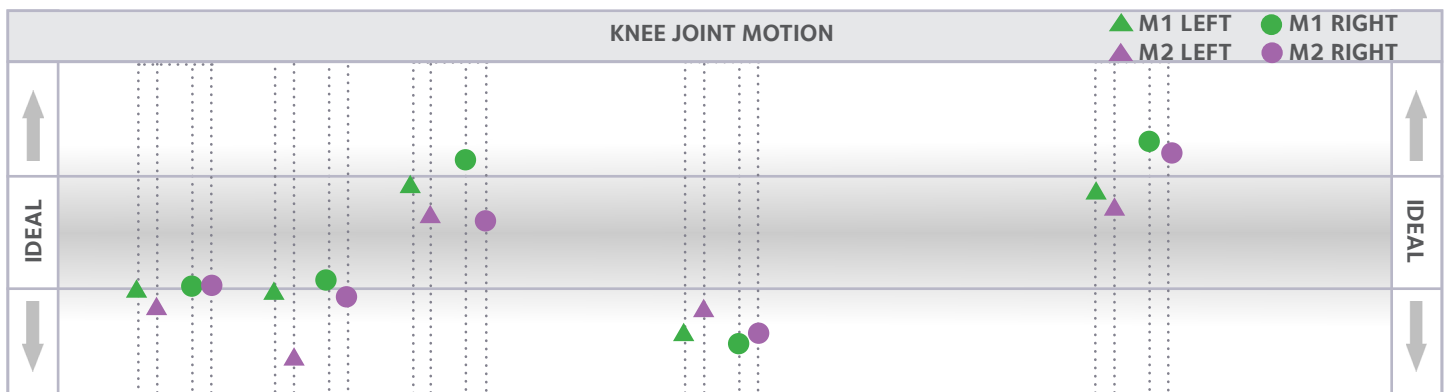


Hip Flexion at Foot-Strike

Hip Extension at Toe-Off

Hip Adduction (Max)

Hip Int. Rotation (Max)



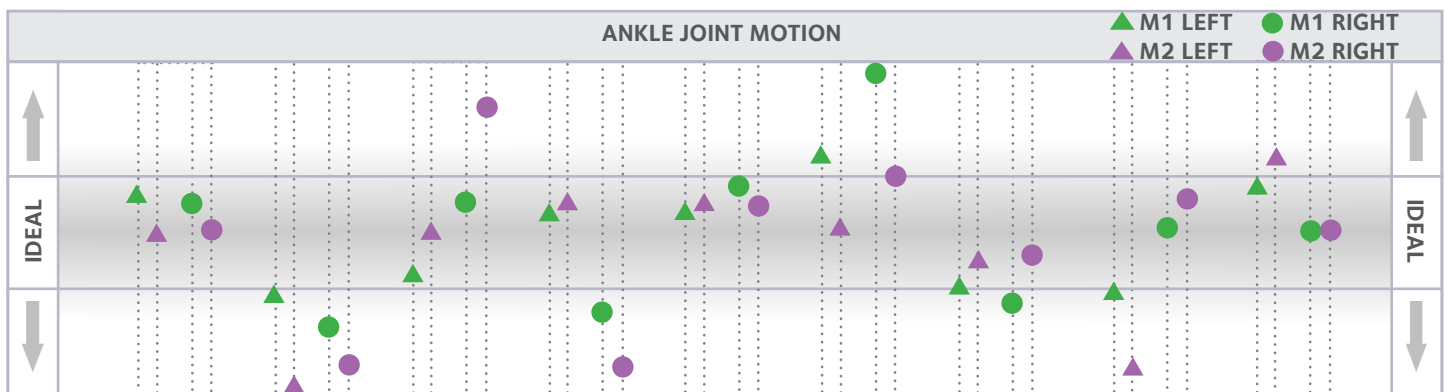
Knee Flexion at Foot-Strike

Knee Flexion (Max)

Time of Max. Knee Flexion

Knee Abduction (Max)

Knee Int. Rotation (Max)



Dorsiflexion at FS

Dorsiflexion (Max)

Inversion at FS

Eversion (Max)

Eversion Excursion

Time of Max Eversion

Eversion Velocity

Tibial Int. Rotation (Max)

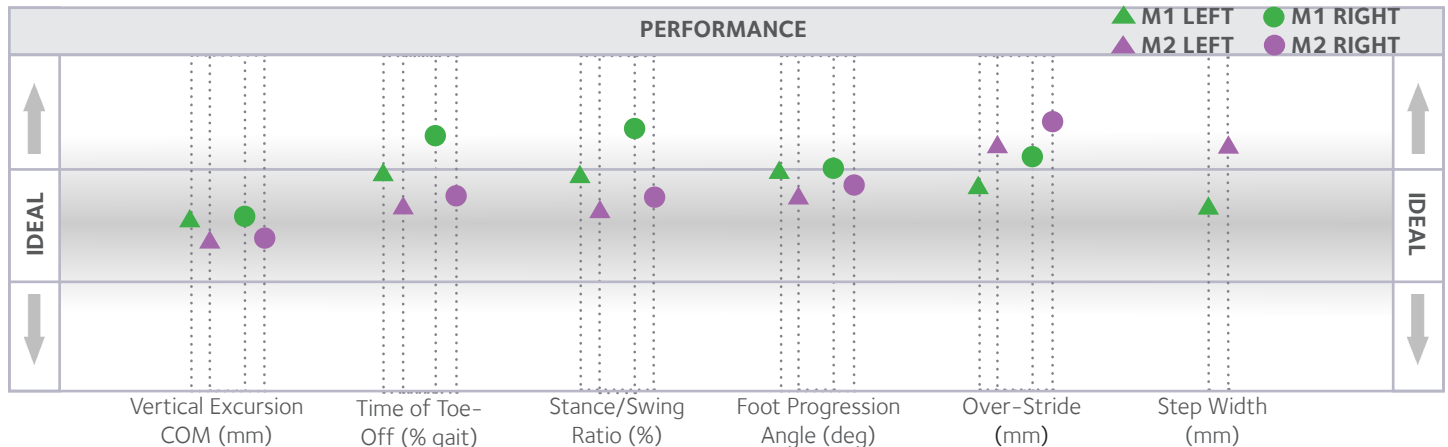
Med. Heel Whip

GAIT ANALYSIS COMPARISON cont'd



Trial Conditions Measurement 1: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial)

Trial Conditions Measurement 2: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial) - pinktrainers



PARAMETER Units in Degrees Unless Specified Otherwise	M1 (Mean (STD)) L R		M2 (Mean (STD)) L R	
Pelvic Tilt (mean stance)	13.58 (0.62)	14.01 (0.52)	36.68 (0.8)	37.94 (0.82)
Pelvic Obliquity (max stance)	0.97 (0.58)	5.19 (0.55)	-1.65 (0.63)	9.18 (0.79)
Pelvic Rotation at Foot-Strike	-1.34 (1.09)	-6.05 (1.14)	-7.04 (1.04)	-6.13 (1.37)
Hip Flexion at Foot-Strike	35.89 (1.06)	34.21 (0.92)	60.08 (1.51)	58.08 (1.43)
Hip Extension at Toe-Off	-5.24 (1.1)	0.17 (0.82)	10.24 (1.15)	20.82 (1.35)
Hip Adduction (max stance)	13.76 (0.52)	12.09 (0.56)	7.46 (0.49)	12.56 (0.56)
Hip Internal Rotation (max stance)	10.66 (0.84)	15.11 (0.86)	12.04 (0.93)	17.65 (0.98)
Knee Flexion at Foot-Strike	4.9 (1.12)	5.38 (1.25)	2.87 (1.21)	5.47 (1.33)
Knee Flexion (max stance)	36.18 (0.95)	34.35 (1.14)	29.74 (0.87)	31.87 (1.33)
Time of Max Knee Flexion (% gait)	19.3 (0.64)	19.57 (1.57)	18.44 (1.36)	17.7 (1.48)
Knee Abduction (max)	-9.43 (0.46)	-9.66 (0.56)	-6.84 (0.51)	-8.73 (0.48)
Knee Internal Rotation (max)	-3.23 (0.81)	-3.09 (0.55)	-5.15 (0.84)	-4.52 (0.52)
Dorsiflexion at Foot-Strike	8.47 (0.53)	8.81 (0.59)	2.47 (0.58)	4.61 (0.61)
Dorsiflexion (max stance)	18.05 (0.79)	15.73 (0.7)	12.11 (0.88)	13.64 (0.76)
Dorsiflexion at Toe-Off	-26.53	-22.8 (1.32)	-31.31	-23.36
Inversion at Foot-Strike	3.82 (1.0)	8.73 (0.64)	6.57 (0.88)	15.2 (1.02)
Eversion (max stance)	6.86 (0.9)	2.52 (0.86)	7.26 (1.11)	-0.33 (0.87)
Time of max eversion (% gait)	21.95 (3.29)	24.76 (0.79)	16.69 (2.02)	17.77 (1.81)
Eversion Excursion	15.95 (2.11)	17.55 (1.95)	16.58 (1.66)	16.09 (1.31)
Eversion Velocity (degrees/second)	184.33	151.49	234.02	267.75
Medial Heel-Whip	5.03 (2.4)	-2.35 (2.36)	8.5 (1.9)	-2.28 (3.13)
Tibial Internal Rotation (max)	-7.05 (0.69)	-1.81 (0.84)	-12.36	-0.14 (0.1)
Static Vertical Off-Set Angle	0.0 (0.0)	0.0 (0.0)	6.29 (0.0)	9.05 (0.0)
Vertical excursion centre of mass (mm)	99.46 (4.56)	100.48 (3.7)	92.13 (4.41)	92.84 (4.63)
Time of toe-off (% gait)	46.23 (1.08)	47.69 (0.92)	44.1 (1.49)	44.22 (1.28)
Stance/Swing Ratio (%)	86.05 (3.79)	91.24 (3.37)	79.02 (4.7)	79.36 (4.12)
Foot Progression Angle	22.92 (0.82)	24.05 (1.12)	19.21 (1.44)	21.43 (1.0)
Over-Stride (mm)	116.2 (10.1)	131.9 (9.2)	150.1 (14.9)	156.9 (9.6)
Step-Width (mm)	105.46 (17.26)		123.35 (19.47)	
Cadence (Steps/Minute)	160.91		167.15	

GAIT ANALYSIS GRAPHS COMPARISON



Trial Conditions Measurement 1: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial)

Trial Conditions Measurement 2: Running at 10 min/mile with neutral footwear on 26/01/2020 (initial) - pinktrainers

— Left Leg 1 — Right Leg 1 Uninjured Controls
— Left Leg 2 — Right Leg 2

