

Luis Ricardo de Mendonca Guastella 16<sup>th</sup> February, 2023

### **PROFILE INFORMATION**

NAME	Luis Ricardo de Mendonca Guastella
ORGANISATION	On Morumbi Clinica Medica
DATE OF BIRTH	4 <sup>th</sup> March, 1977
GENDER	Male
HEIGHT	181cm / 71in
WEIGHT	84kg / 184lb
AGE	45





# Standing Posture Posture and Stability Assessment

Standing Posture is a baseline postural assessment that can provide insight into an individual's structural balance, alignment, and postural strategy.

### **RESULTS**

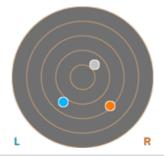






### SWAYTRAK MOVEMENT PATHS (KNEES AND CENTRE OF MASS)

Neck lateral flexion	4.2° Right ▼
Trunk lateral flexion	1.2° Right ▼
Pelvis Lateral Tilt	1.0° Right ▼
Trunk Flexion	4.2° Posterior





# Single Leg Stand Balance Assessment

Standing balance over time is assessed while standing on one leg.

Eyes Open Surface Stable Time  $10.0 \, s$ 

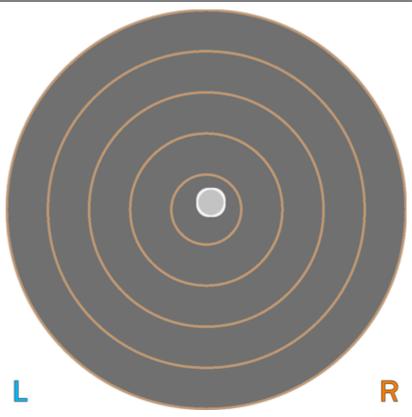
### **RESULTS**

### **BALANCE RESULTS (LEFT)**

SNAPSHOT - START OF TEST







KEY METRICS	RESULTS
Ellipse Area	0.71 cm-2
COM Path Length	13.88 cm
Range - ML	2.13 cm
Range - AP	2.34 cm
Pelvis Lateral Tilt	9.2° Left ▼
Trunk lateral flexion	5.0° Left ▼





# Single Leg Stand Balance Assessment

Standing balance over time is assessed while standing on one leg.

Eyes Open Surface Stable Time  $10.0 \, s$ 

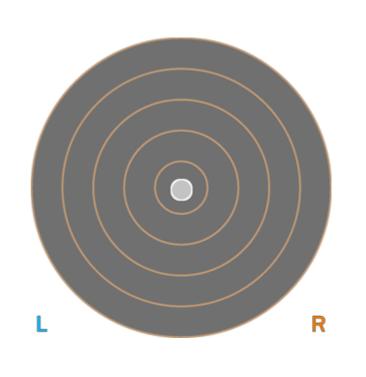
## **RESULTS**

### BALANCE RESULTS (RIGHT)

### SNAPSHOT - START OF TEST



CENTER OF MASS PATH



KEY METRICS	RESULTS
Ellipse Area	0.55 cm-2
COM Path Length	14.42 cm
Range - ML	3.25 cm
Range - AP	1.75 cm
Pelvis Lateral Tilt	4.7° Right ▼
Trunk lateral flexion	3.2° Right ▼





### Squat Lower Body Dynamic Assessment

Squat is a dynamic movement assessment providing insight into an individual's balance, stability, flexibility, and strength.

### **RESULTS**

### SNAPSHOTS

### **START**



### REP 1: PEAK KNEE FLEXION



### REP 2: PEAK KNEE FLEXION



### REP 3: PEAK KNEE FLEXION

3	
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KEY RESULTS	REP 1	REP 2	REP 3
Peak Knee Flexion ( Left )	129.6°	139.8°	142.4°
Peak Knee Flexion ( Right )	130.3°	138.6°	140.4°
Spine Tilt at Peak Knee Flexion	41.4° Anterior	26.4° Anterior	29.3° Anterior
Trunk lateral flexion at Peak Knee Flexion	0.5° Left ▼	1.3° Right ▼	2.8° Right ▼





## Overhead Squat

### Lower Body Dynamic Assessment

Overhead squat is a dynamic movement assessment providing insight into an individual's balance, stability, flexibility, and strength.

### **RESULTS**

### REP 1: REP 2: REP 3: **START** PEAK KNEE FLEXION PEAK KNEE FLEXION PEAK KNEE FLEXION KEY RESULTS REP 1 REP 2 REP 3 Peak Knee Flexion (Left 124.6° 132.4° 127.7° Peak Knee Flexion ( 127.8° 124.8° 132.0° Right ) **Trunk Flexion** 25.0° Anterior 21.5° Anterior 22.3° Anterior at Peak Knee Flexion Trunk lateral flexion 0.0° Right ▼ 0.2° Right ▼ 0.3° Left ▼ at Peak Knee Flexion





### Countermovement Jump

### **Lower Body Dynamic Assessment**

The Countermovement Jump assesses the landing posture during an explosive dynamic exercise.

### **RESULTS**

## PEAK KNEE FLEXION after landing



### KEY METRICS (TORSO)

Jump Height 30.42 cm

Peak Spine Tilt after landing 34.5° Anterior

Peak Lateral Spine Tilt after landing 0.3° Right

Peak Lateral Pelvic Tilt after landing 2.1° Right

KEY METRICS (LEGS)	LEFT LEG	RIGHT LEG	ASYMMETRY
Peak Hip Flexion after landing	77.5°	78.0°	0.6%
Peak Knee Flexion after landing	86.9°	88.0°	1.3%
Peak Knee Valgus/Varus after landing	34.2° Varus	42.5° Varus	19.6%





## Hip Internal/External Rotation

### Range of Motion Assessment

Hip Internal/External Rotation is calculated by taking the angle created by the tibia relative to vertical in the frontal plane (front view) while seated with 90° of hip flexion.

### **RESULTS**

### PEAK INTERNAL ROTATION

**LEFT** 



### RIGHT



### PEAK EXTERNAL ROTATION

**LEFT** 



### RIGHT



KEY RESULTS	LEFT	RIGHT	IMBALANCE
Peak Internal Rotation	34.5°	25.9°	+8.5°
Peak External Rotation	49.2°	48.7°	+0.4°
Total ROM	83.6°	74.7°	+9.0°

PRACTITIONER COMMENTS (LEFT)

PRACTITIONER COMMENTS ( RIGHT )

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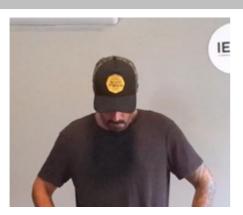


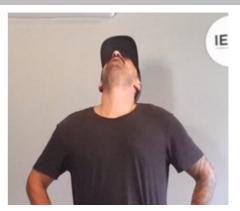


# Cervical Spine Flexion/Extension Range of Motion Assessment

Cervical Spine Flexion (forward) / Extension (backwards) calculated by taking the inclination of the head relative to the line of the trunk in the sagittal plane (side view).

### **RESULTS**





KEY RESULTS	STARTING POSITION	PEAK FLEXION	PEAK EXTENSION	TOTAL RANGE
Flexion/Extension	0.0°	22.6°	12.4°	35.0°
Trunk Flexion	4.9° Posterior	0.9° Anterior	2.5° Posterior	N/A
Trunk lateral flexion	1.1°	2.2° Right ▼	1.6° Right ▼	N/A





# Cervical Spine Lateral Flexion Range of Motion Assessment

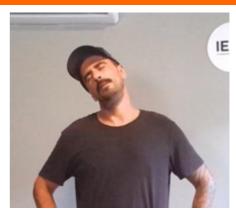
Cervical Spine Lateral Flexion (left and right) is calculated by taking the inclination of the head relative to the line of the trunk in the frontal plane (front view).

### **RESULTS**

### PEAK LEFT LATERAL FLEXION



### PEAK RIGHT LATERAL FLEXION



KEY RESULTS	PEAK FLEXION (LEFT)	PEAK FLEXION (RIGHT)	IMBALANCE
Lateral Flexion	17.2°	15.5°	+1.7°
Trunk Flexion	5.0° Posterior	3.4° Posterior	N/A
Trunk lateral flexion at Peak Flexion	1.4° Left ▼	2.6° Right ▼	+1.2°





## Shoulder Adduction/Abduction

### **Range of Motion Assessment**

Shoulder Adduction/Abduction is calculated by taking the angle created by the humerus (upper arm) relative to the line of the trunk in the frontal plane (front view).

### **RESULTS**

## LEFT **RIGHT LEFT RIGHT** IEC' IEC? KEY RESULTS **IMBALANCE LEFT RIGHT Shoulder Adduction** 11.8° 8.6° +3.2° **Shoulder Abduction** 181.3° 179.8° +1.5° Trunk lateral flexion 4.0° Right ▼ 0.3° Right ▼ +3.7° at Peak Abduction



PRACTITIONER COMMENTS ( RIGHT )

PRACTITIONER COMMENTS (LEFT)



## Shoulder Flexion/Extension

### **Range of Motion Assessment**

Shoulder Flexion/Extension is calculated by taking the angle created by the humerus (upper arm) relative to the line of the trunk in the sagittal plane (side view).

### **RESULTS**

PEAK FLEXION		PEAK EXTENSION		
LEFT	RIGHT	LEFT	RIGHT	
IEC IEC	IECT IECT	IEC	IECY	
KEY RESULTS	LEFT	RIGHT	IMBALANCE	
Shoulder Flexion	180.0°	199.5°	+19.6°	
Shoulder Extension	52.8°	56.9°	+4.1°	
Trunk lateral flexion at Peak Flexion	2.8° Right ▼	0.7° Right ▼	+2.1°	
PRACTITIONER COMMENT	S(LEFT)	PRACTITIONER COMMEN	TS ( RIGHT )	





## Shoulder Internal/External Rotation

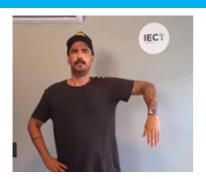
### **Range of Motion Assessment**

Shoulder Internal/External Rotation calculated by taking the angle created by the forearm relative to horizontal in the sagittal plane (side view).

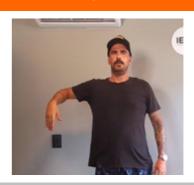
### **RESULTS**

### PEAK INTERNAL ROTATION

**LEFT** 



**RIGHT** 

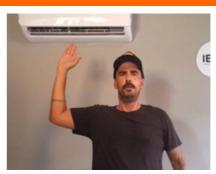


### PEAK EXTERNAL ROTATION

**LEFT** 



**RIGHT** 



KEY RESULTS	LEFT	RIGHT	IMBALANCE
Shoulder Internal Rotation	38.9°	59.4°	+20.4°
Shoulder External Rotation	60.7°	75.4°	+14.8°
Total ROM	99.6°	134.8°	+35.2°
Trunk lateral flexion at Peak Internal Rotation	3.4° Right ▼	1.4° Right ▼	+2.0°

PRACTITIONER COMMENTS (LEFT)

PRACTITIONER COMMENTS ( RIGHT )





# Lunge Lower Body Dynamic Assessment

The Lunge assesses the strength and range of motion of the knees and hips.

### **RESULTS**

### PEAK KNEE FLEXION

LEFT





KEY METRICS	LEFT LEG	RIGHT LEG	ASYMMETRY
Peak Hip Flexion	61.1°	67.3°	9.3%
Peak Knee Flexion	71.7°	91.7°	21.7%
Peak Spine Lateral Tilt	3.1° Posterior	2.2° Anterior	N/A
Peak Pelvic Lateral Tilt	2.3° Right	1.8° <b>Right</b>	N/A

PRACTITIONER COMMENTS (LEFT)

PRACTITIONER COMMENTS ( RIGHT )





# Drop Jump Lower Body Dynamic Assessment

Drop Jump is used to assess coordination, balance, joint stability and power, requiring the patient to drop from a box or platform and transition from landing into an explosive jump .

Height

unspecified

### **RESULTS**

REGOLIO			
PHASE	Initial Contact	Peak Knee Flexion	
SNAPSHOTS			
Result			
Knee-Ankle Separation Ratio	1.0	1.2	
Hip Flexion ( Left )	31.1°	67.6°	
Hip Flexion (Right)	29.2°	66.5°	
Knee Flexion ( Left )	33.4°	84.9°	
Knee Flexion ( Right )	29.9°	83.5°	
2.0 oita oita 1.5 oita 1.0 oita 0.5 oita 0.5	2000 3000 40	KASR   Initial Contact   Peak Knee Flexion   Full Knee Extension	





# Single Leg Squat Lower Body Dynamic Assessment

Single Leg Squat is a dynamic movement assessment that provides insight into an individual's balance, stability, flexibility, and strength.

### **RESULTS**

### **LEFT LEG**

**START** 



REP 1:

REP 2: PEAK KNEE FLEXION



REP 3: PEAK KNEE FLEXION



KEY RESULTS	REP 1	REP 2	REP 3
Peak Knee Flexion	78.5°	75.3°	81.6°
Knee Displacement (total)	24.7 cm	18.1 cm	39.2 cm
Peak Knee Valgus	11.5° <b>Valgus</b>	11.2° Valgus	10.3° <b>Valgus</b>
Peak Knee Varus	8.2° Varus	0.6° <b>Varus</b>	6.5° Varus
Trunk lateral flexion at Peak Knee Flexion	1.6° Left ▼	4.7° Right ▼	4.2° Left ▼

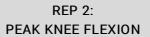
### **RESULTS**

### RIGHT LEG

### SNAPSHOTS

START





REP 3: PEAK KNEE FLEXION









KEY BEQUITO	DED 1	250.0	250
KEY RESULTS	REP 1	REP 2	REP 3
Peak Knee Flexion	83.0°	86.9°	83.0°
Knee Displacement (total)	16.3 cm	29.4 cm	16.5 cm
Peak Knee Valgus	21.6° <b>Valgus</b>	16.3° <b>Valgus</b>	10.7° <b>Valgus</b>
Peak Knee Varus	3.4° Varus	10.9° <b>Varus</b>	2.9° Varus
Trunk lateral flexion at Peak Knee Flexion	10.8° <b>Left</b> ▼	0.7° Left ▼	2.3° Right ▼