HUMANTRAK
MOVEMENT ANALYSIS SYSTEM

PROFILE ASSESSMENT

Eduardo Cardamone

28th December, 2022

PROFILE INFORMATION

NAME	Eduardo Cardamone
ORGANISATION	On Morumbi Clinica Medica
DATE OF BIRTH	17th October, 2006
GENDER	Male
HEIGHT	176cm / 69in
WEIGHT	58kg / 127lb
AGE	16

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

BALANCE SNAPSHOT

SIDETRAK POSTURAL DEVIATION (SAGITTAL PLANE/SIDE VIEW)

KEY RESULTS

Neck lateral flexion	4.9° Right ▼
Trunk lateral flexion	0.3° Left ▼
Pelvis Lateral Tilt	1.9° Left ▼
Trunk Flexion	4.9° Posterior

SWAYTRAK MOVEMENT PATHS (KNEES AND CENTRE OF MASS)

PRACTITIONER COMMENTS

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

PEAK FLEXION SNAPSHOT	PEAK EXTENSION SNAPSHOT
	

KEY RESULTS	STARTING POSITION	PEAK FLEXION	PEAK EXTENSION	TOTAL RANGE
Flexion/Extension	0.0°	24.6°	15.8°	40.5°
Trunk Flexion	4.2° **Posterior**	1.9° **Posterior**	3.0° **Posterior**	N/A
Trunk lateral flexion	1.5°	1.4° Left ▼	0.9° Right ▼	N/A

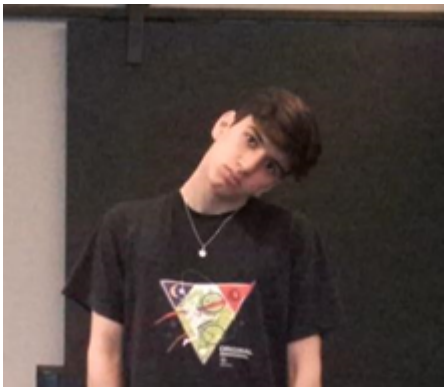
PRACTITIONER COMMENTS

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	16.5°	29.9°	+13.4°
Trunk Flexion	5.7° **Posterior**	7.6° **Posterior**	N/A
Trunk lateral flexion at Peak Flexion	3.8° Left ▼	3.6° Right ▼	+0.3°

PRACTITIONER COMMENTS

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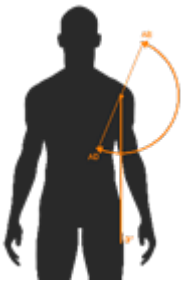
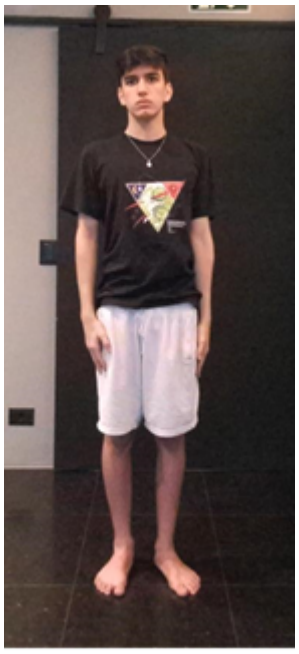
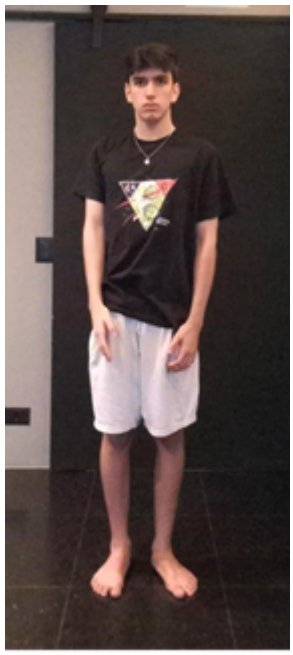
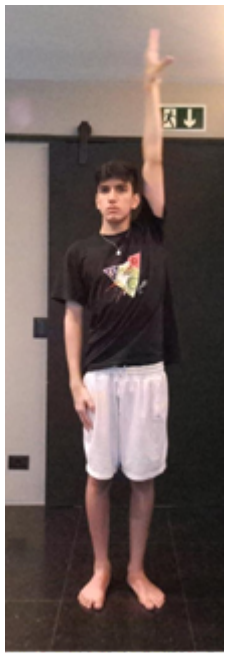
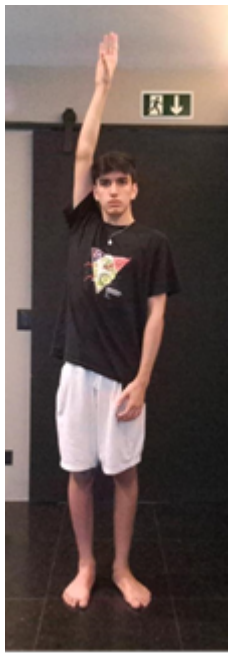


Shoulder Adduction/Abduction

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

PEAK ADDUCTION		PEAK ABDUCTION	
LEFT	RIGHT	LEFT	RIGHT
			

KEY RESULTS	LEFT	RIGHT	IMBALANCE
Shoulder Adduction	3.7°	0.1°	+3.6°
Shoulder Abduction	179.5°	171.3°	+8.1°
Trunk lateral flexion at Peak Abduction	3.7° Right ▼	5.9° Left ▼	+2.2°

PRACTITIONER COMMENTS (LEFT)

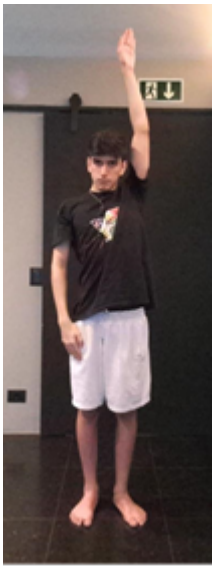
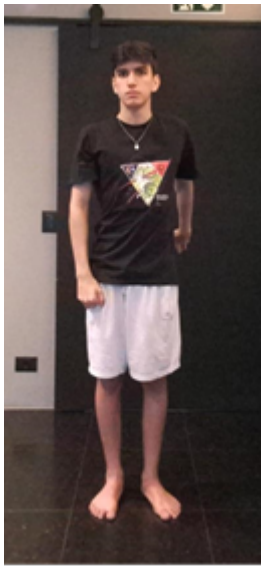
PRACTITIONER COMMENTS (RIGHT)

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
			

KEY RESULTS	LEFT	RIGHT	IMBALANCE
Shoulder Flexion	178.5°	190.9°	+12.4°
Shoulder Extension	46.9°	61.3°	+14.3°
Trunk lateral flexion at Peak Flexion	3.5° Right ▼	3.9° Left ▼	+0.5°

PRACTITIONER COMMENTS (LEFT)

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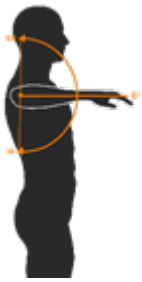
PRACTITIONER COMMENTS (RIGHT)



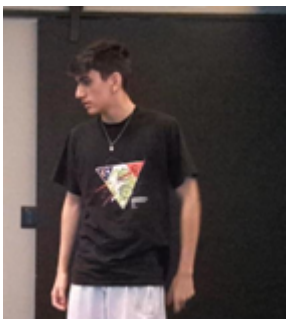
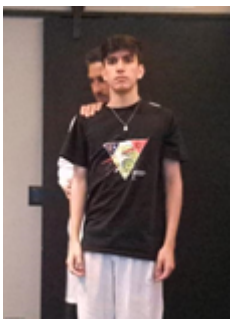
Shoulder Internal/External Rotation

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	85.5°	74.8°	+10.7°
Shoulder External Rotation	95.2°	100.5°	+5.4°
Total ROM	180.7°	175.3°	+5.3°
Trunk lateral flexion at Peak Internal Rotation	0.0° Right ▼	2.5° Left ▼	+2.4°

PRACTITIONER COMMENTS (LEFT)

PRACTITIONER COMMENTS (RIGHT)

Single Leg Stand

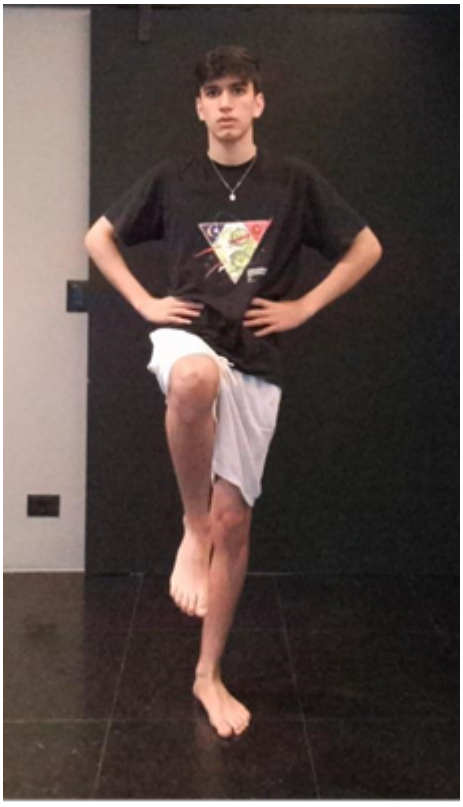
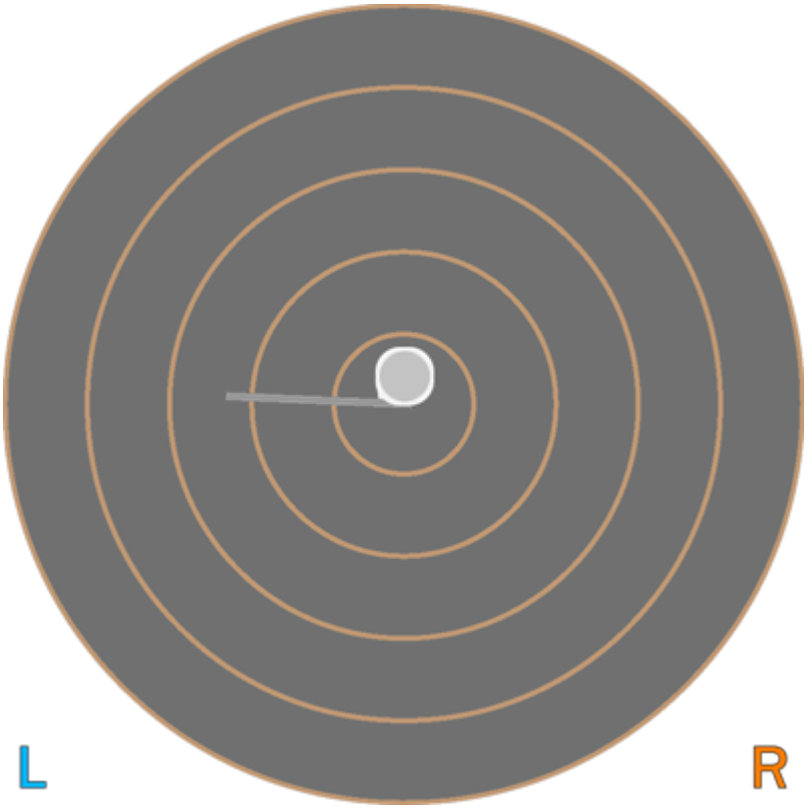
Balance Assessment

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	CENTER OF MASS PATH
	

KEY METRICS	RESULTS
Ellipse Area	0.56 cm-2
COM Path Length	15.20 cm
Range – ML	1.85 cm
Range – AP	2.40 cm
Pelvis Lateral Tilt	10.8° Left ▼
Trunk lateral flexion	3.7° Left ▼

PRACTITIONER COMMENTS

Single Leg Stand

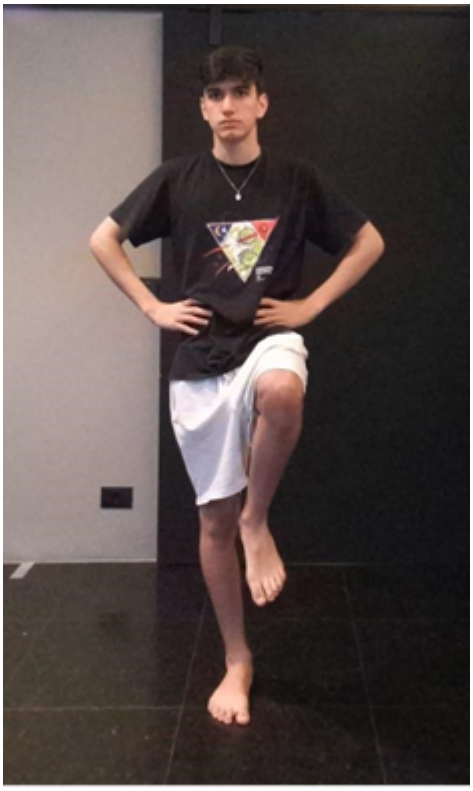
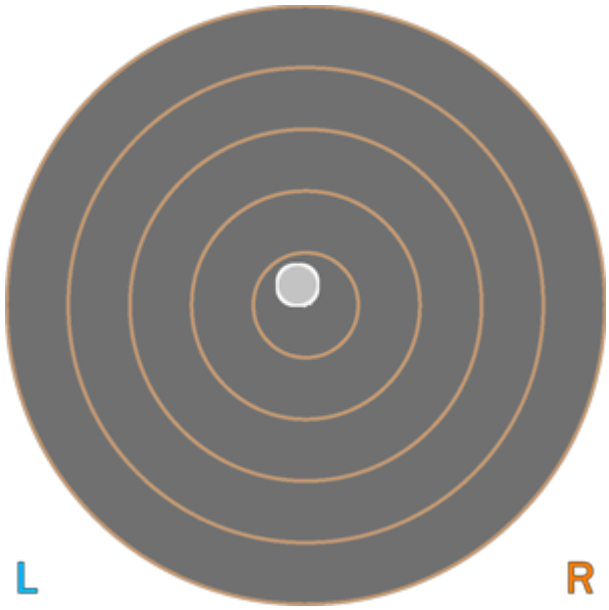
Balance Assessment

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

Eyes	Open
Surface	Stable
Time	10.0 s

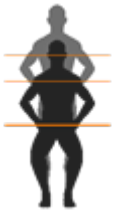
RESULTS

BALANCE RESULTS (RIGHT)

SNAPSHOT – START OF TEST	CENTER OF MASS PATH
	

KEY METRICS	RESULTS
Ellipse Area	0.42 cm-2
COM Path Length	12.71 cm
Range – ML	1.45 cm
Range – AP	2.57 cm
Pelvis Lateral Tilt	4.1° Right ▼
Trunk lateral flexion	1.6° Right ▼

PRACTITIONER COMMENTS

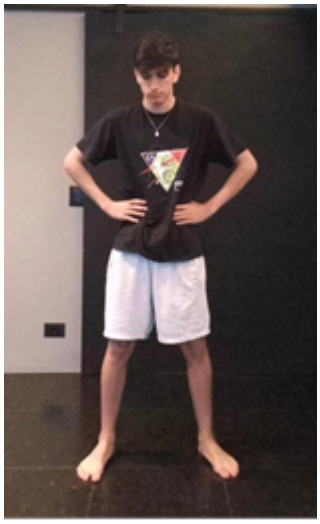
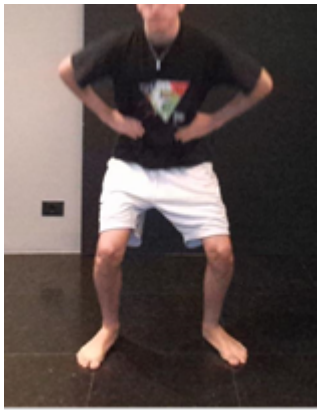
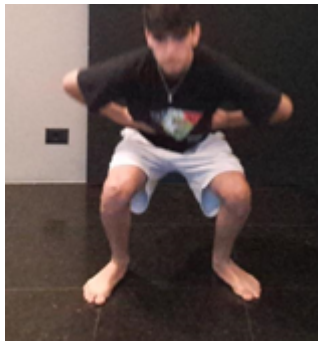


Squat

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
			

KEY RESULTS	REP 1	REP 2	REP 3
Peak Knee Flexion (Left)	116.8°	88.5°	120.7°
Peak Knee Flexion (Right)	113.1°	83.3°	115.3°
Spine Tilt at Peak Knee Flexion	35.6° Anterior	29.6° Anterior	35.8° Anterior
Trunk lateral flexion at Peak Knee Flexion	2.6° Left ▼	2.7° Left ▼	3.5° Left ▼

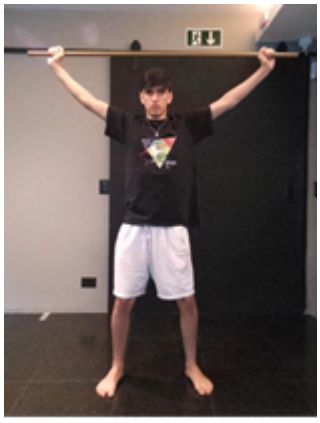
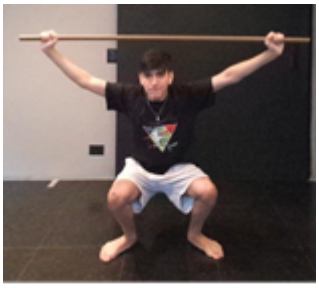
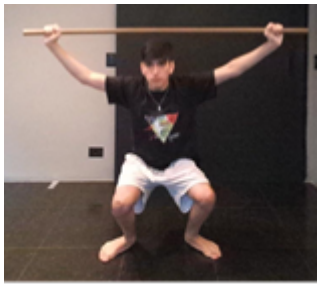
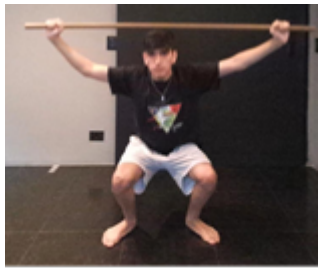
PRACTITIONER COMMENTS

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

SNAPSHOTS			
START	REP 1: PEAK KNEE FLEXION	REP 2: PEAK KNEE FLEXION	REP 3: PEAK KNEE FLEXION
			

KEY RESULTS	REP 1	REP 2	REP 3
Peak Knee Flexion (Left)	131.5°	132.2°	134.9°
Peak Knee Flexion (Right)	131.0°	129.7°	131.2°
Trunk Flexion at Peak Knee Flexion	17.0° Anterior	15.9° Anterior	19.5° Anterior
Trunk lateral flexion at Peak Knee Flexion	0.5° Right ▼	1.0° Left ▼	0.1° Right ▼

PRACTITIONER COMMENTS

Hip Internal/External Rotation

Range of Motion Assessment

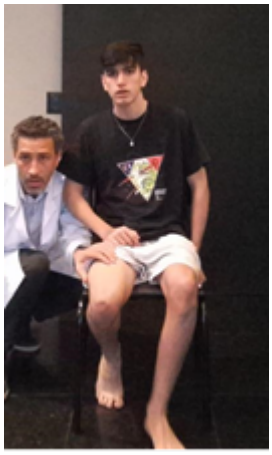
Hip Internal/External Rotation is calculated by taking the angle created by the tibia relative to vertical in the frontal plane (front view) while seated with 90˚ of hip flexion.

RESULTS

PEAK INTERNAL ROTATION

LEFT	RIGHT
	

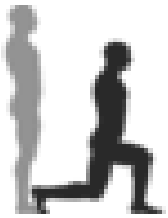
PEAK EXTERNAL ROTATION

LEFT	RIGHT
	

KEY RESULTS	LEFT	RIGHT	IMBALANCE
Peak Internal Rotation	36.0°	59.6°	+23.5°
Peak External Rotation	50.4°	45.2°	+5.3°
Total ROM	86.5°	104.7°	+18.3°

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	RIGHT

KEY METRICS	LEFT LEG	RIGHT LEG	ASYMMETRY
Peak Hip Flexion	63.3°	56.9°	10.2%
Peak Knee Flexion	114.2°	103.5°	9.3%
Peak Spine Lateral Tilt	0.3° **Anterior**	3.8° **Anterior**	N/A
Peak Pelvic Lateral Tilt	5.3° **Right**	7.7° **Right**	N/A

PRACTITIONER COMMENTS (LEFT)

PRACTITIONER COMMENTS (RIGHT)

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	43.45 cm		
Peak Spine Tilt after landing	7.0° **Anterior**		
Peak Lateral Spine Tilt after landing	1.3° **Left**		
Peak Lateral Pelvic Tilt after landing	3° **Right**		
KEY METRICS (LEGS)	**LEFT LEG**	**RIGHT LEG**	**ASYMMETRY**
Peak Hip Flexion after landing	38.2°	37.2°	2.6%
Peak Knee Flexion after landing	65.9°	61.8°	6.2%
Peak Knee Valgus/Varus after landing	23.1° **Varus**	6.9° **Varus**	70.1%

PRACTITIONER COMMENTS

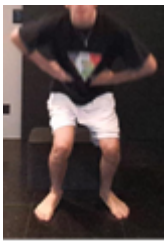
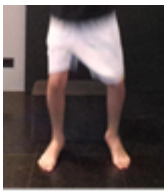
Drop Jump

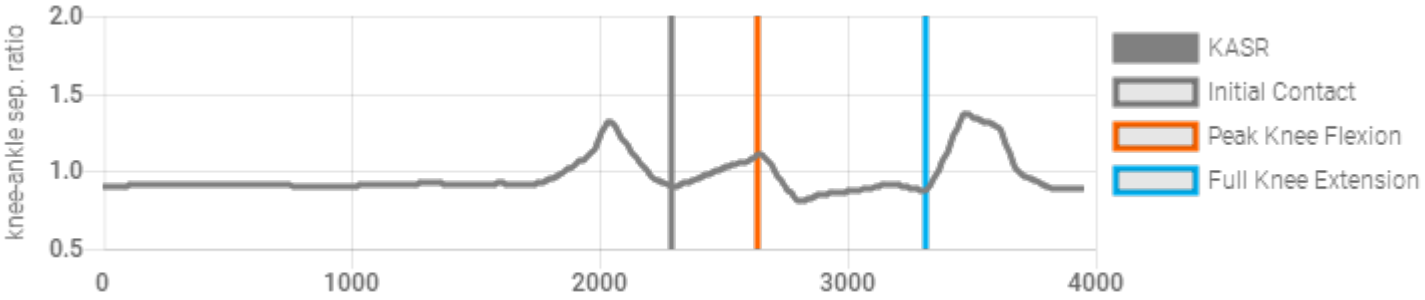
Lower Body Dynamic Assessment

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

PHASE	Initial Contact	Peak Knee Flexion
SNAPSHOTS		
Result		
Knee-Ankle Separation Ratio	0.9	1.1
Hip Flexion (Left)	27.6°	81.5°
Hip Flexion (Right)	30.5°	80.9°
Knee Flexion (Left)	40.3°	96.5°
Knee Flexion (Right)	38.1°	91.5°



PRACTITIONER COMMENTS

Single Leg Squat

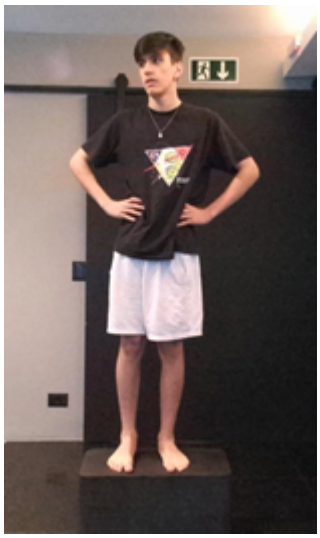
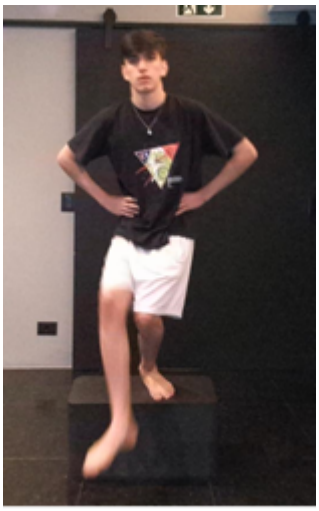
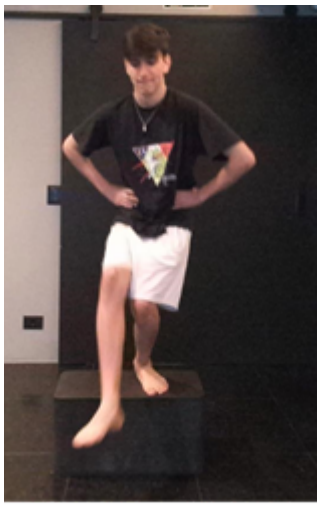
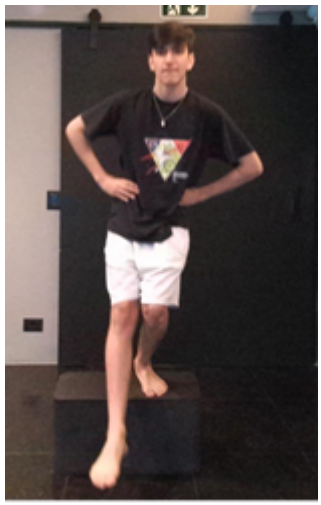
Lower Body Dynamic Assessment

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

RESULTS

LEFT LEG

SNAPSHOTS

START	REP 1: PEAK KNEE FLEXION	REP 2: PEAK KNEE FLEXION	REP 3: PEAK KNEE FLEXION
			

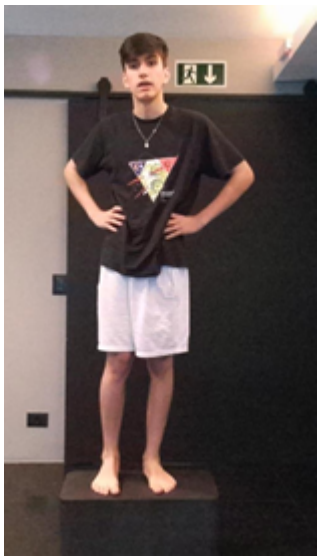
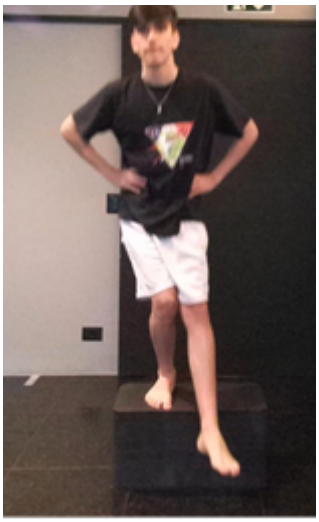
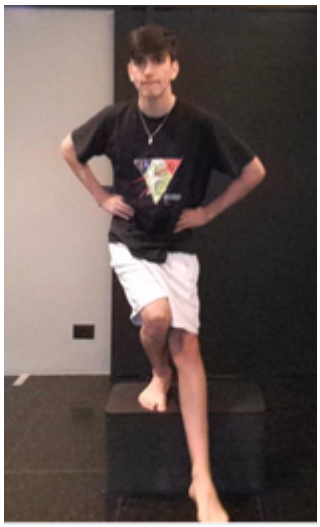
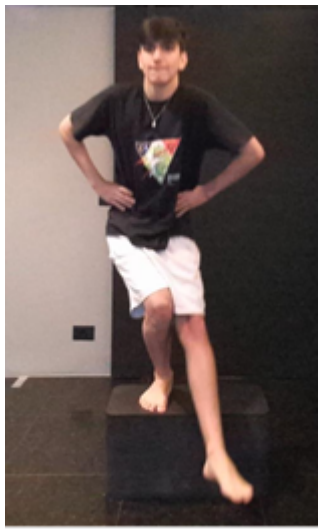
KEY RESULTS	REP 1	REP 2	REP 3
Peak Knee Flexion	99.4°	104.7°	99.1°
Knee Displacement (total)	15.3 cm	24.6 cm	9.7 cm
Peak Knee Valgus	24° **Valgus**	28.5° **Valgus**	6° **Valgus**
Peak Knee Varus	1.8° **Varus**	10.6° **Varus**	2.6° **Varus**
Trunk lateral flexion at Peak Knee Flexion	3.1° Left ▼	4.3° Left ▼	6.0° Left ▼

PRACTITIONER COMMENTS

RESULTS

RIGHT LEG

SNAPSHOTS

START	REP 1: PEAK KNEE FLEXION	REP 2: PEAK KNEE FLEXION	REP 3: PEAK KNEE FLEXION
			

KEY RESULTS	REP 1	REP 2	REP 3
Peak Knee Flexion	100.4°	99.3°	97.4°
Knee Displacement (total)	17.3 cm	10.9 cm	19.0 cm
Peak Knee Valgus	28.3° **Valgus**	30.1° **Valgus**	43.7° **Valgus**
Peak Knee Varus	2.3° **Varus**	2.1° **Varus**	1.7° **Varus**
Trunk lateral flexion at Peak Knee Flexion	1.2° Right ▼	2.6° Left ▼	5.0° Left ▼

PRACTITIONER COMMENTS