

report | Walking Analysis



YOUR LOGO

PATIENT DETAILS	
NAME	
AGE (Yrs.)	
WEIGHT (kg)	
HEIGHT (ft)	
GENDER	
CLINICIAN	
DATE	

KINEMATIC DATA

LATERAL VIEW

Ankle Plantar/
Dorsi Flexion

Ankle Angle ^a	Right	left	Reference Value
Initial Contact	99.3°	101.9°	90° to 95°
Loading Response	99.8°	96.3°	90° to 96°
Mid Stance	89.7°	87.2°	78° to 86°
Terminal Stance	89.1°	82.4°	76° to 84°
Pre Swing	105.5°	99.5°	99° to 109°
Initial Swing	92.7°	85.7°	94° to 104°
Mid Swing	97.8°	94.0°	87° to 93°

Normal values

Knee Flex/
Extension

Knee Angle ^b	Right	left	Reference Value
Initial Contact	179.4°	179.6°	168° to 178°
Loading Response	160.8°	160.0°	156° to 165°
Mid Stance	169.7°	171.0°	168° to 177°
Terminal Stance	165.3°	166.5°	163° to 171°
Pre Swing	141.1°	136.7°	136° to 147°
Initial Swing	132.1°	123.4°	116° to 126°
Mid Swing	161.2°	155.6°	146° to 157°

Hip Flex/
Extension

Hip Angle ^c	Right	left	Reference Value
Initial Contact	(+) 21.5°	(+) 20.5°	(+) 20° to (+) 27°
Loading Response	(+) 20.6°	(+) 17.4°	(+) 19° to (+) 26°
Mid Stance	(+) 0.6°	(-) 2.6°	0° to (-) 6°
Terminal Stance	(-) 16.6°	(-) 18.2°	(-) 15° to (-) 23°
Pre Swing	(-) 11.2°	(-) 9.4°	(-) 7° to (-) 15°
Initial Swing	(+) 17.1°	(+) 20.7°	(+) 9° to (+) 17°
Mid Swing	(+) 17.4°	(+) 24.5°	(+) 22° to (+) 30°

Rearfoot
In/Eversion

POSTERIOR VIEW

Detect assymetries between
right & left extremity gait

Rear Foot Angle ^d	Right	Left	Reference Value
Mid Stance	(+) 12.7°	(+) 5.5°	(+) 2° to (+) 6°

Contra/Ipsilateral
pelvic drop

Pelvic Drop ^e	Right	Left	Reference Value
Mid Stance	(-) 0.0°	(+) 4.0°	0° to (+) 5°

ANTERIOR VIEW

Knee Ab/Adduction ^f	Right	Left	Reference Value
Mid Stance	(-) 1.4°	(+) 1.4°	0°

a. Ankle angle > 90° denotes plantarflexion while ankle angle < 90° denotes dorsiflexion.

b. Knee angle > 180° denotes hyperextension while knee angle < 180° denotes flexion.

c. Hip flexion is shown as (+) and hip extension is shown as (-).

d. Rear foot Eversion is denoted as (+) and Rear foot inversion is denoted as (-).

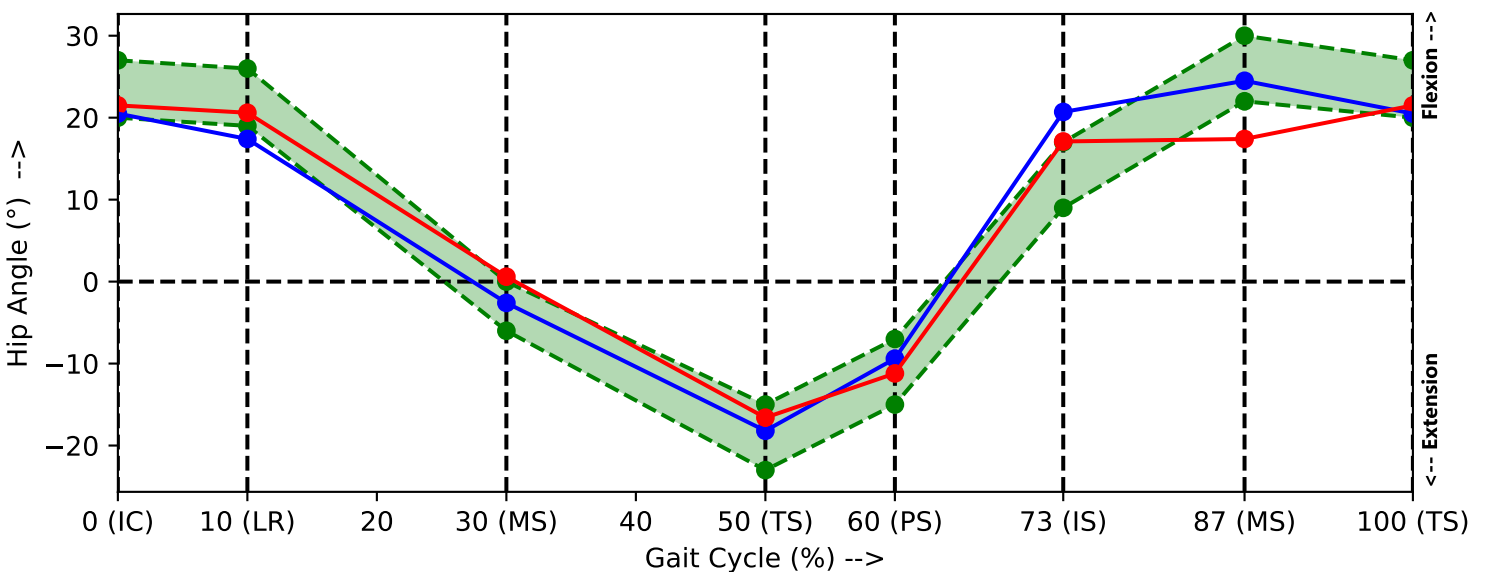
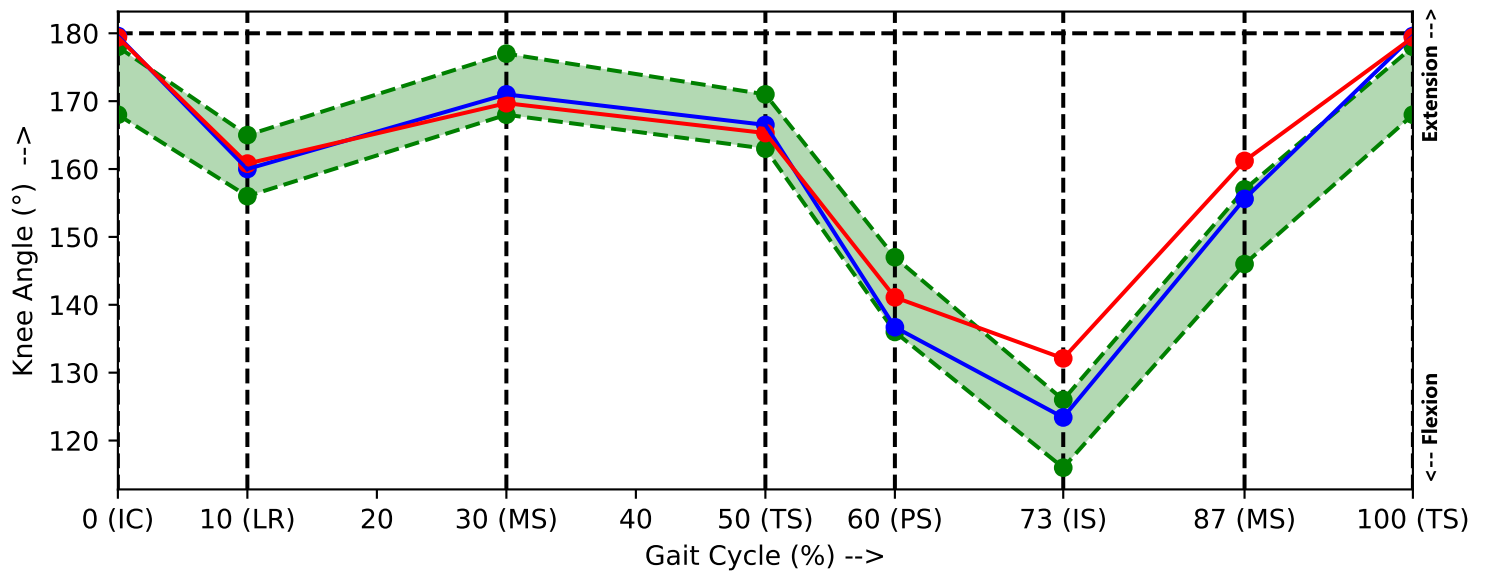
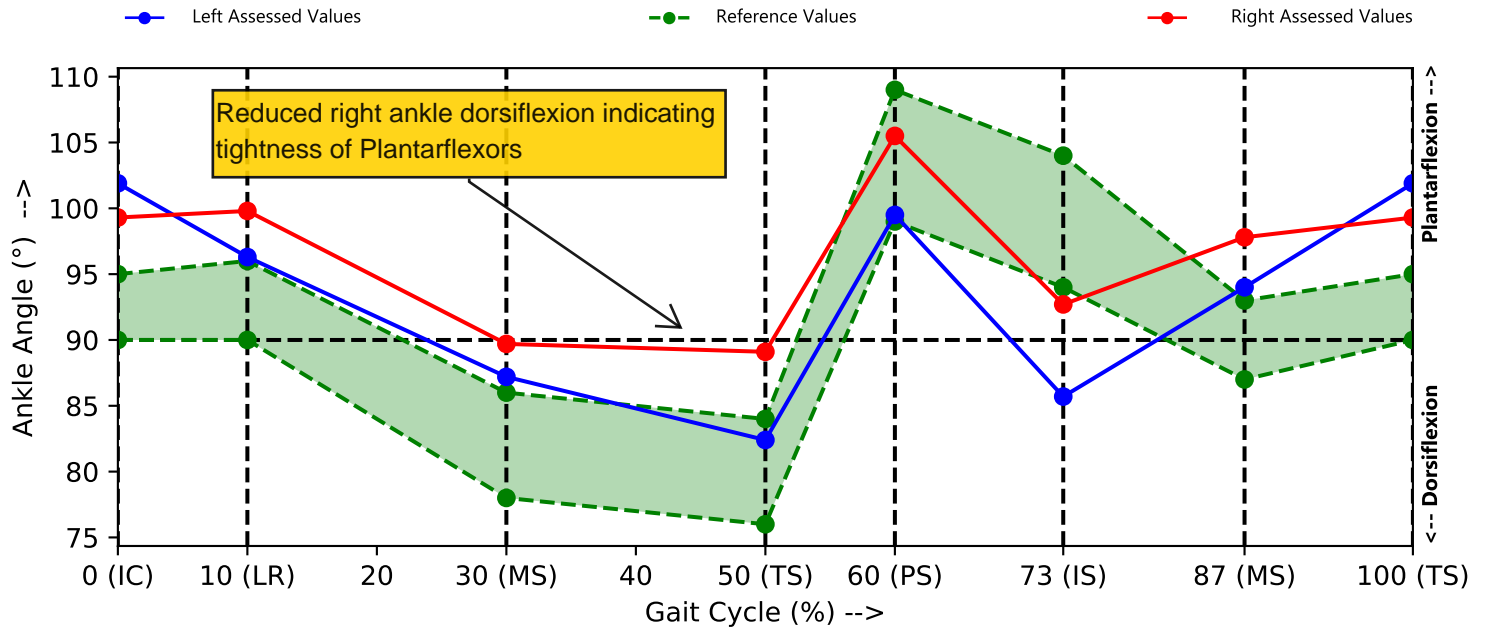
e. Contralateral pelvic drop is shown as (+) while ipsilateral pelvic drop is shown as (-).

f. Knee Ab/Adduction is (+) when patella is medial to the 2nd toe and (-) when patella is lateral to the 2nd toe.

g. All values are free gait speed, phase ending.

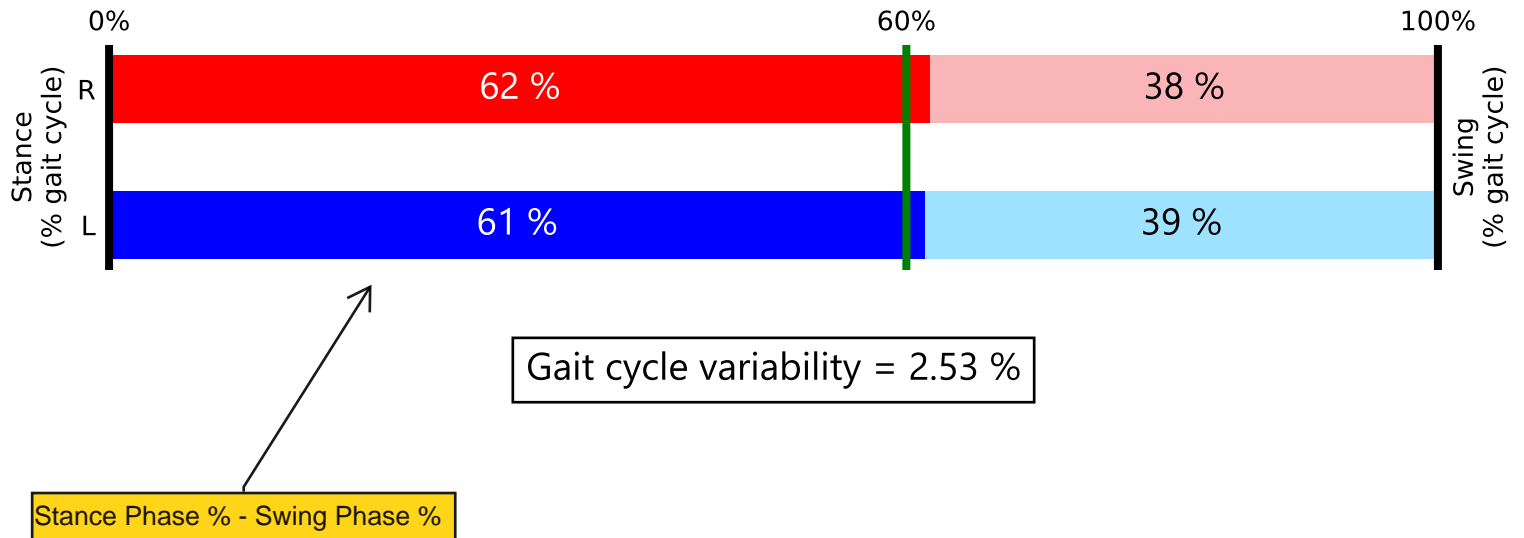
KINEMATIC GRAPHS

Graphs for the lateral views of the gait cycle



- a. Ankle angle > 90° denotes plantarflexion while ankle angle < 90° denotes dorsiflexion.
- b. Knee angle > 180° denotes hyperextension while knee angle < 180° denotes flexion.
- c. Hip angle > 0° denotes flexion while Hip angle < 0° denotes extension.

Temporal Parameters



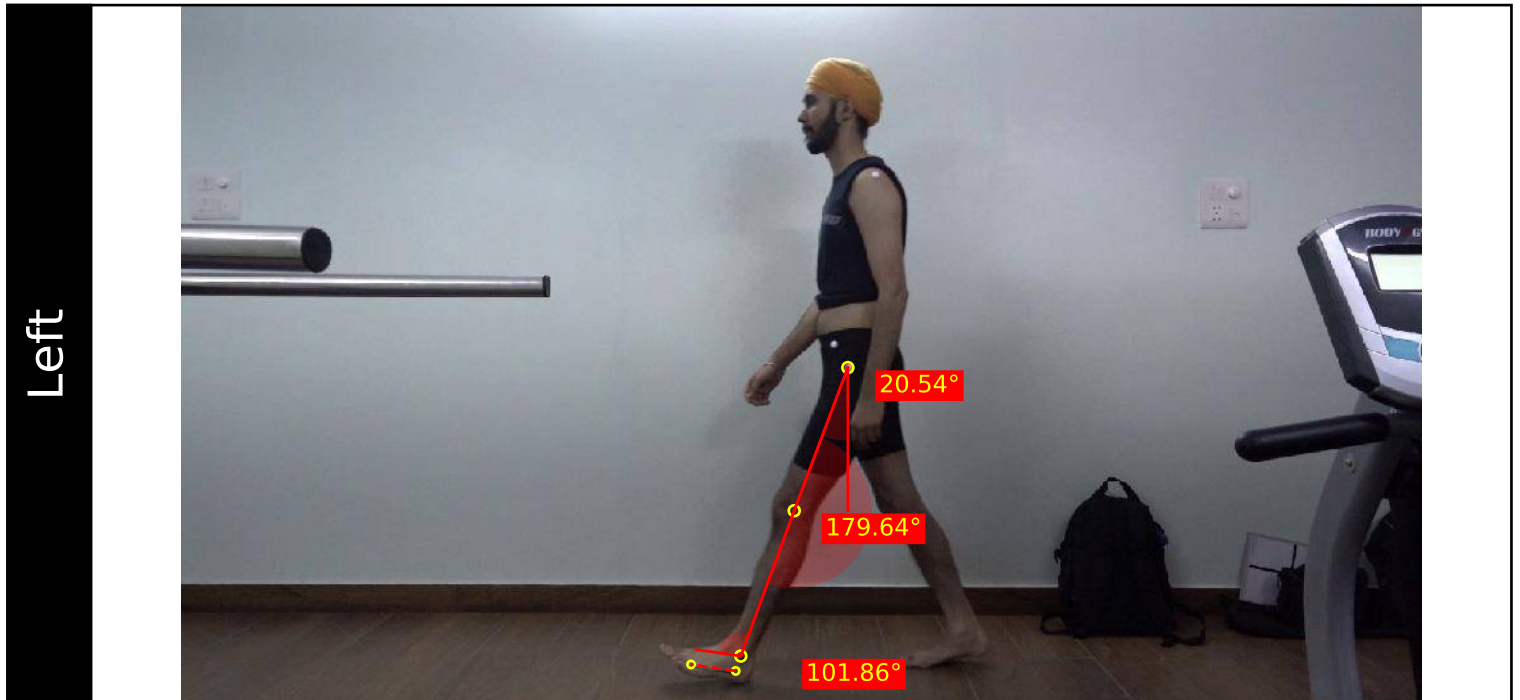
Each gait cycle is divided into 2 phases, **stance and swing**.

Stance phase : The entire period during which the foot is on the ground. This phase begins with initial contact of the foot..

Swing phase : The entire period during which the foot is in the air for limb advancement. This phase begins as the foot is lifted from the floor (toe-off).

INITIAL CONTACT | Lateral View

Instant at which the foot first makes contact with the ground.



Left Hip Angle is within the normal range at Initial Contact.
Left Knee extends more than normal at Initial Contact (Minor Deviation).
Left Ankle plantarflexes more than normal at Initial Contact (Major Deviation).

Automatic Notes

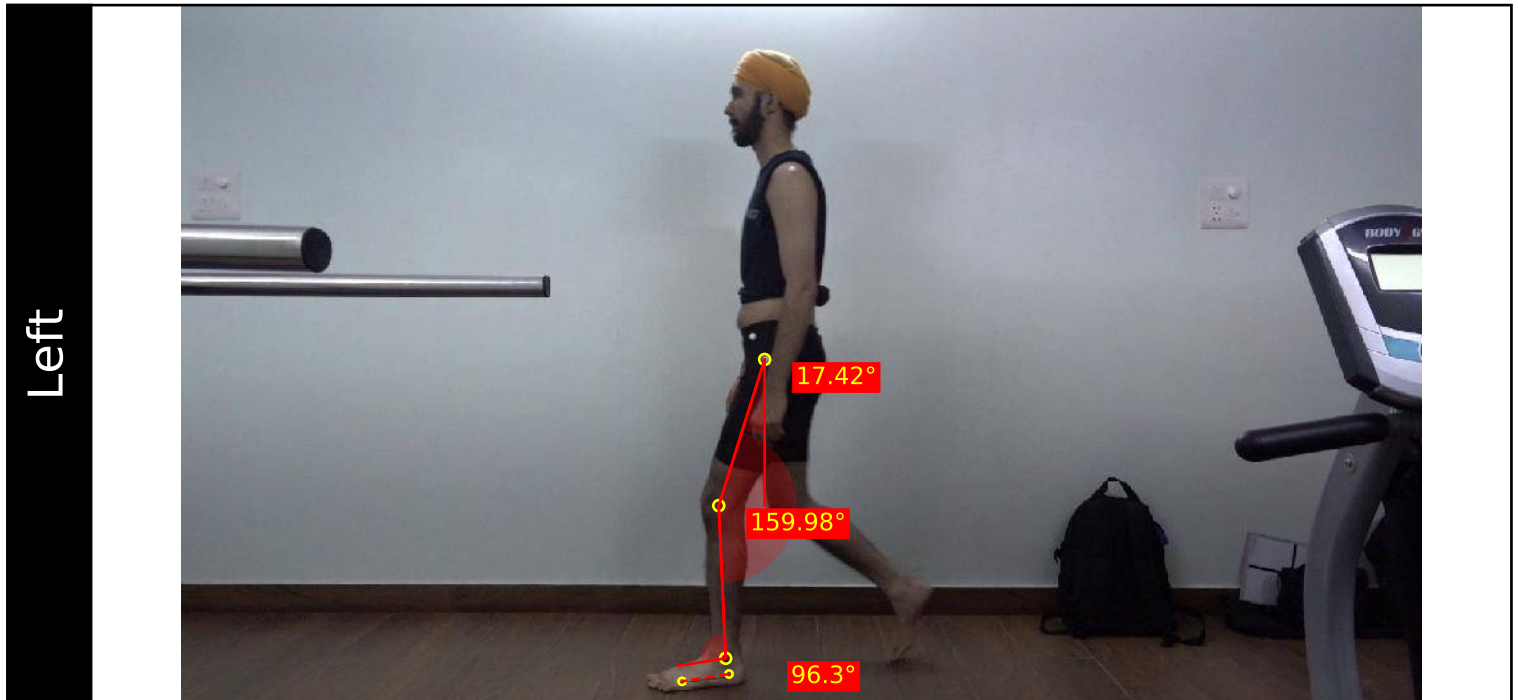


Right Hip Angle is within the normal range at Initial Contact.
Right Knee extends more than normal at Initial Contact (Minor Deviation).
Right Ankle plantarflexes more than normal at Initial Contact (Minor Deviation).

Automatic Notes

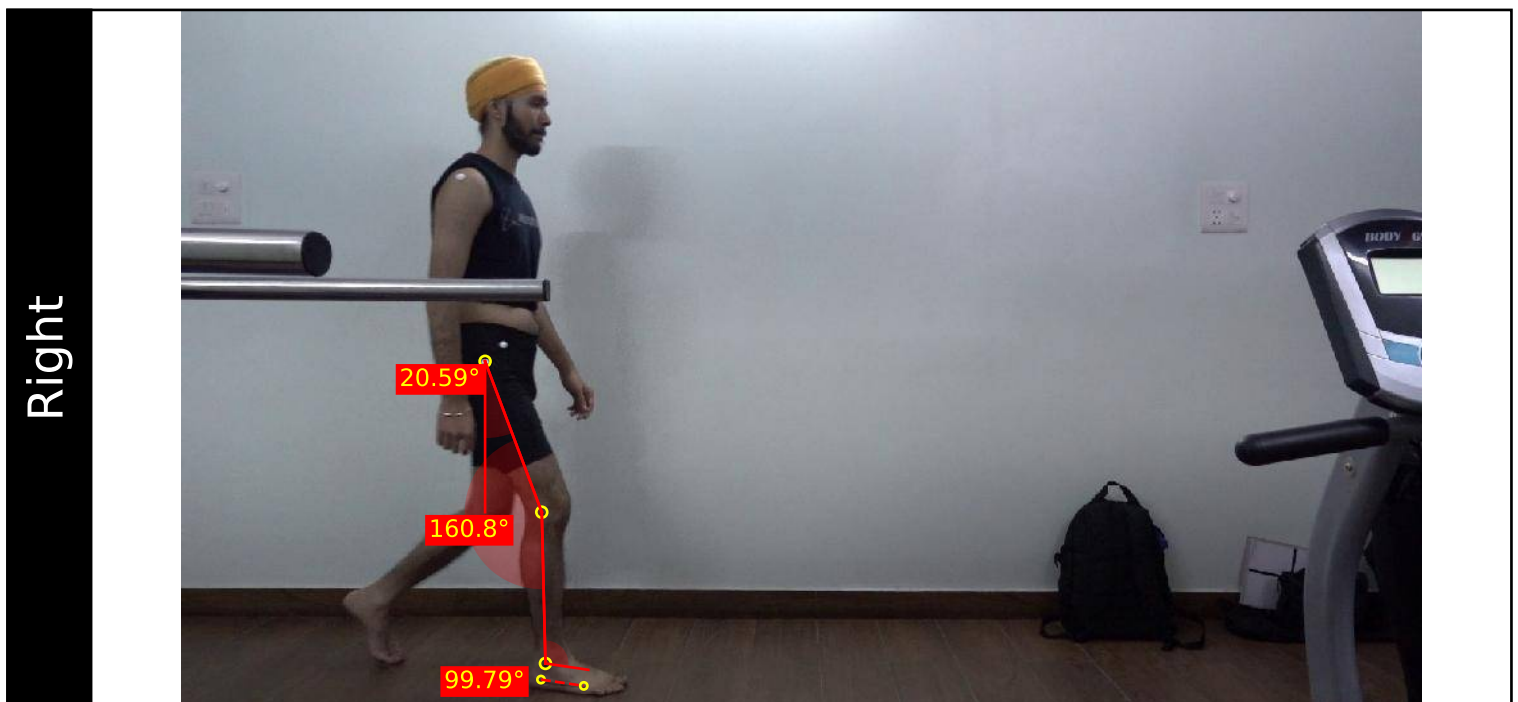
LOADING RESPONSE | Lateral View

This phase begins with initial contact and ends the moment when the contralateral toe lifts off.



Left

Left Hip extends more than normal at the end of Loading Response (Minor Deviation).
Left Knee Angle is within the normal range at the end of Loading Response.
Left Ankle plantarflexes more than normal at the end of Loading Response (Minor Deviation).

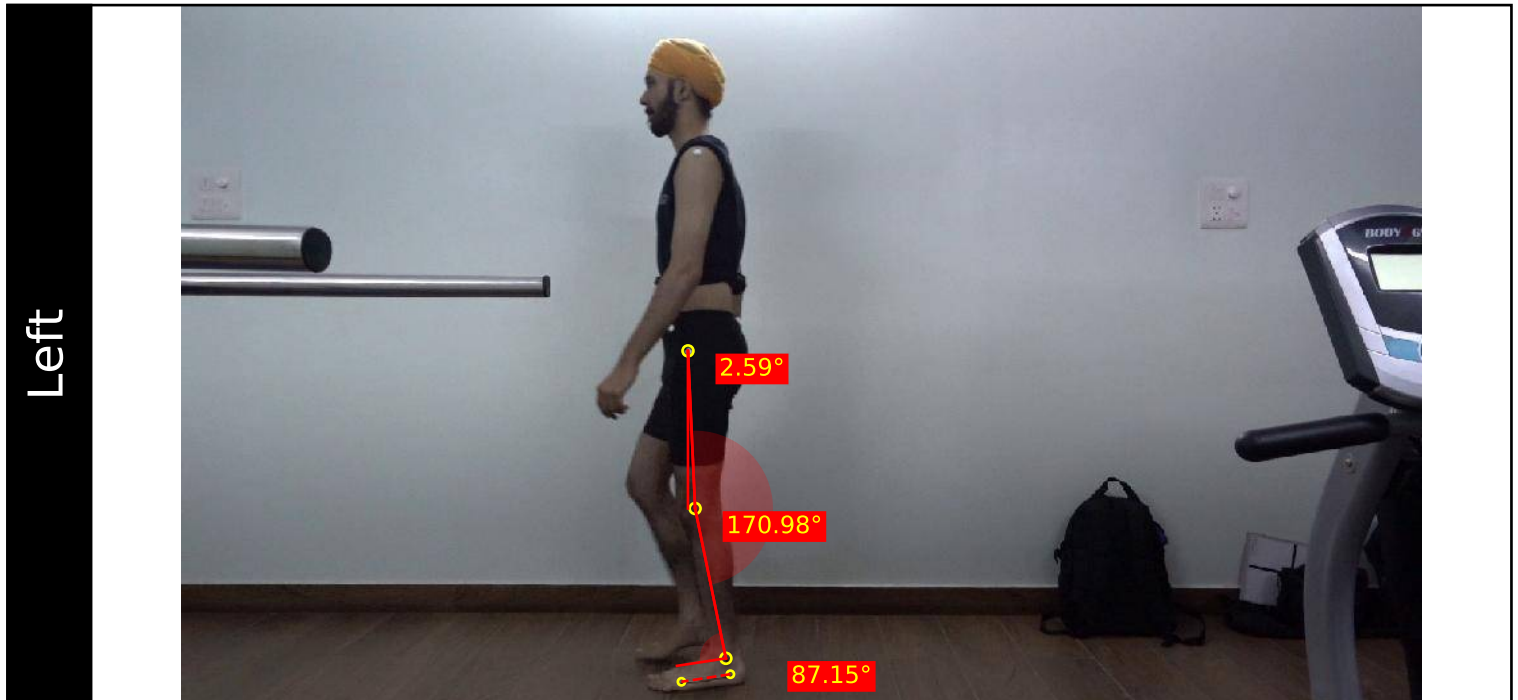


Right

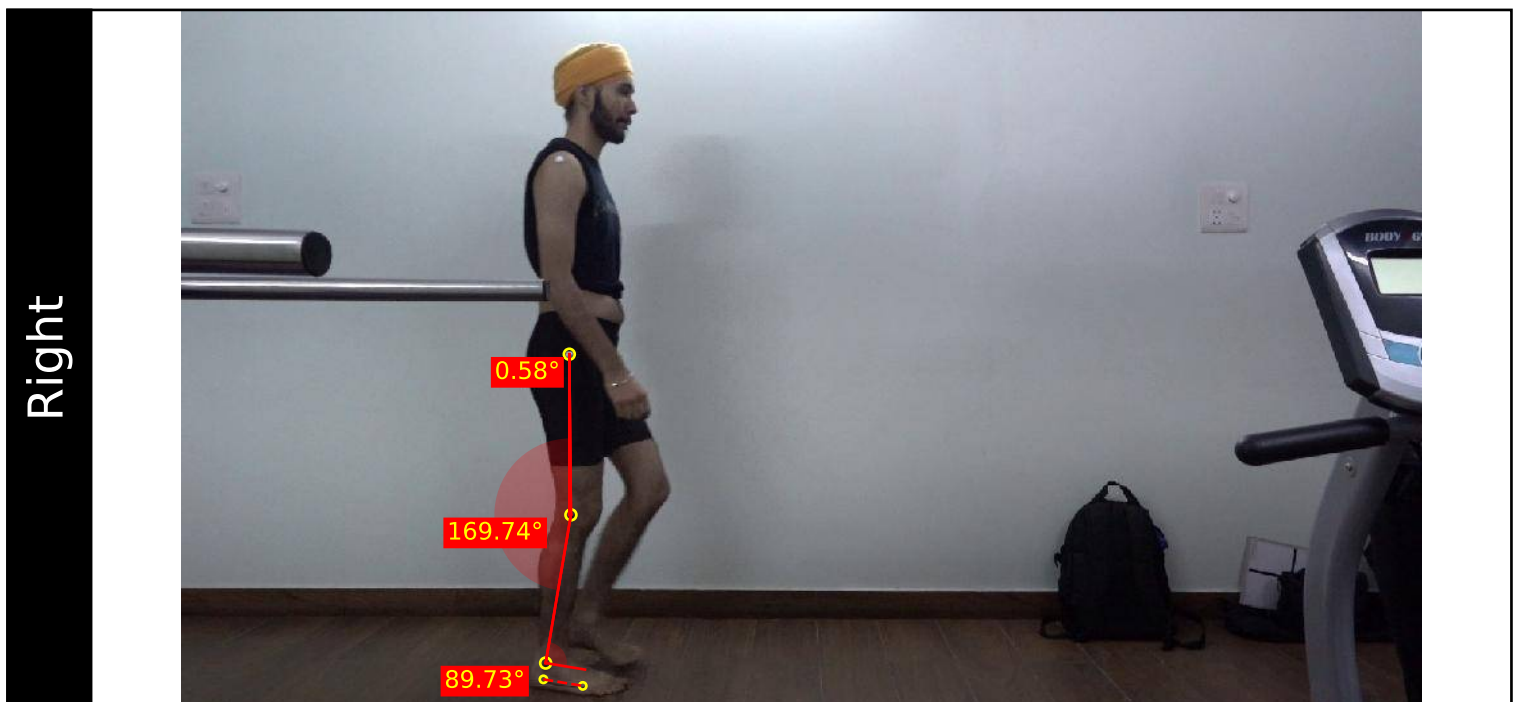
Right Hip Angle is within the normal range at the end of Loading Response.
Right Knee Angle is within the normal range at the end of Loading Response.
Right Ankle plantarflexes more than normal at the end of Loading Response (Minor Deviation).

MID STANCE | Lateral View

Instant when the body's center of mass (COM) is directly over the foot



Left Hip Angle is within the normal range at the end of Mid Stance.
Left Knee Angle is within the normal range at the end of Mid Stance.
Left Ankle plantarflexes more than normal at the end of Mid Stance (Minor Deviation).



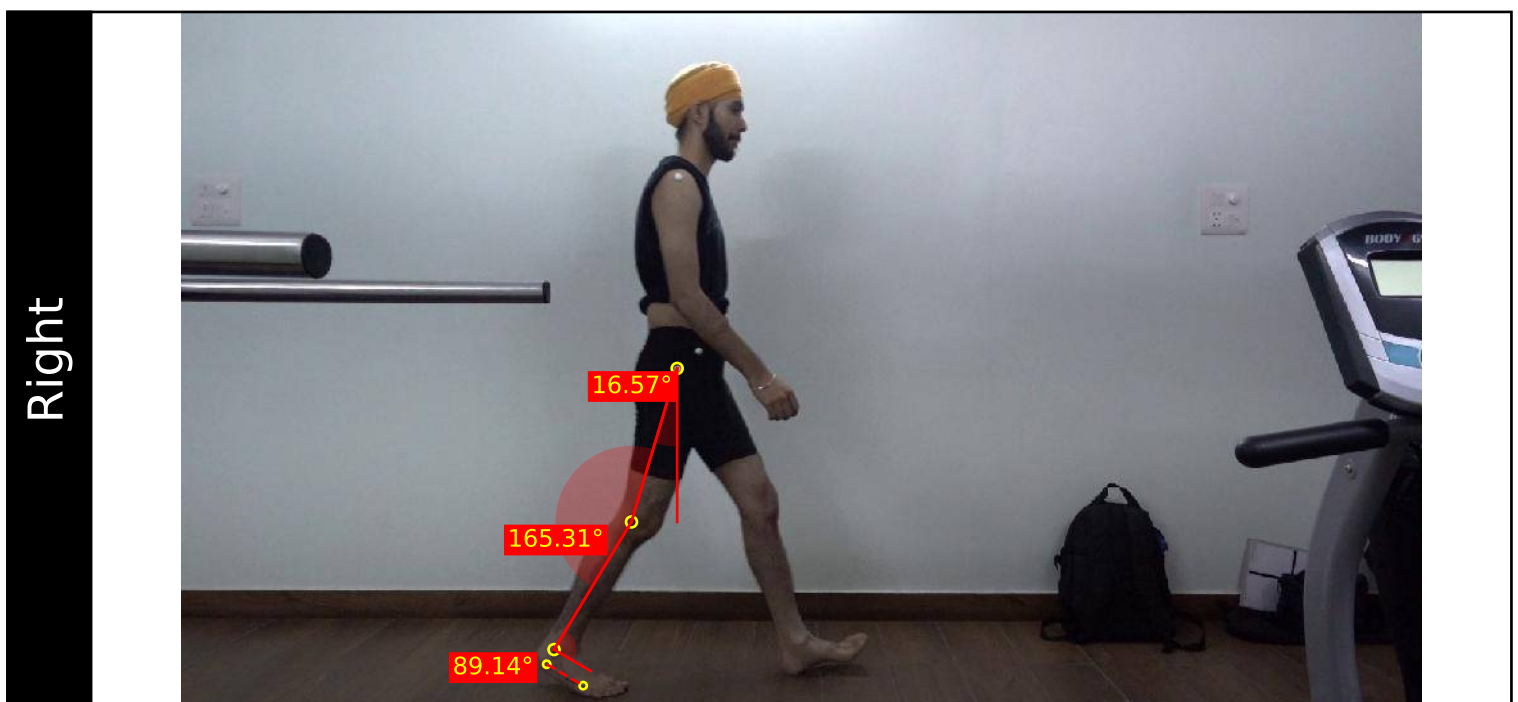
Right Hip flexes more than normal at the end of Mid Stance (Minor Deviation).
Right Knee Angle is within the normal range at the end of Mid Stance.
Right Ankle plantarflexes more than normal at the end of Mid Stance (Minor Deviation).

TERMINAL STANCE | Lateral View

Begins at the end of mid stance & ends the moment when the contralateral foot just strikes the ground.



Left Hip Angle is within the normal range at the end of Terminal Stance.
Left Knee Angle is within the normal range at the end of Terminal Stance.
Left Ankle Angle is within the normal range at the end of Terminal Stance.



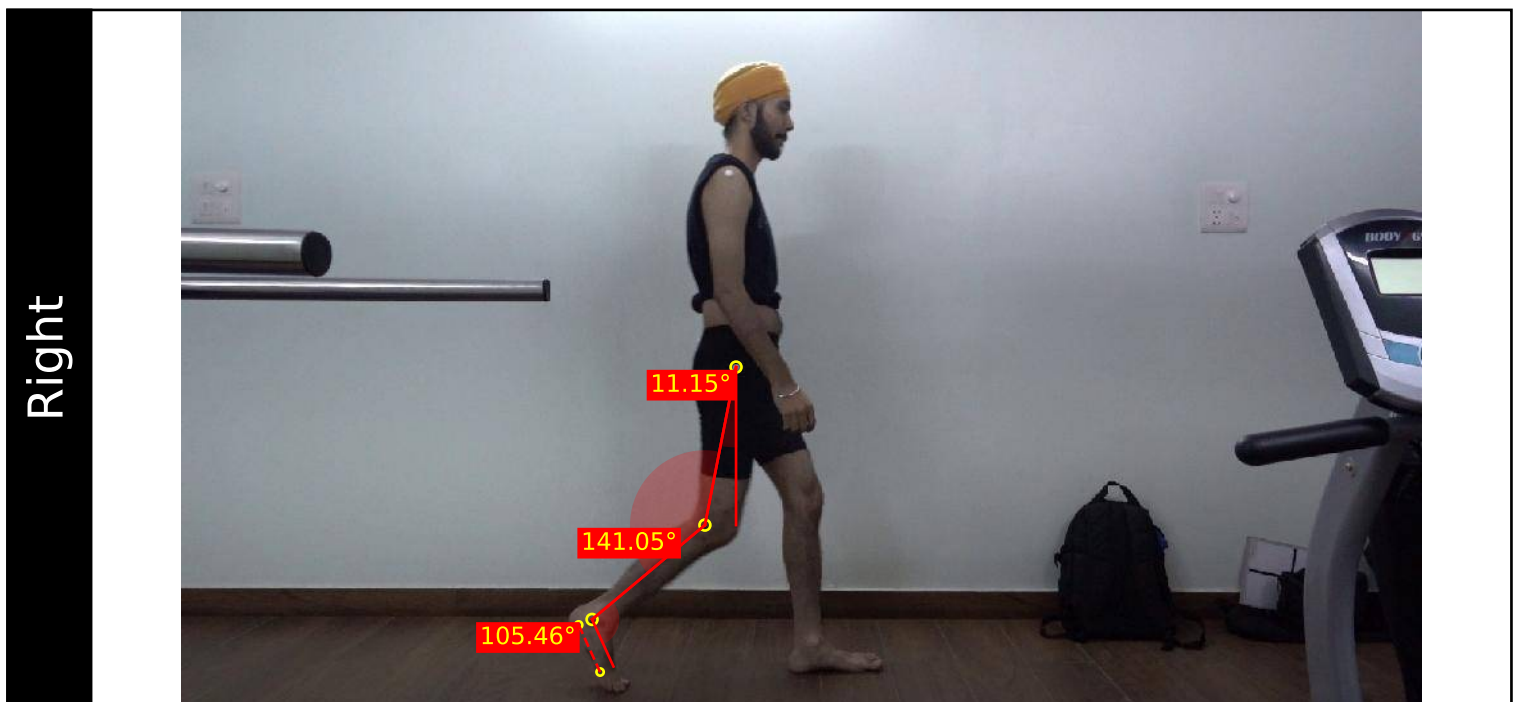
Right Hip Angle is within the normal range at the end of Terminal Stance.
Right Knee Angle is within the normal range at the end of Terminal Stance.
Right Ankle plantarflexes more than normal at the end of Terminal Stance (Major Deviation).

PRE SWING | Lateral View

Begins at the end of terminal stance and ends the moment when the ipsilateral toe leaves the ground.



Left Hip Angle is within the normal range at the end of Pre Swing.
Left Knee Angle is within the normal range at the end of Pre Swing.
Left Ankle Angle is within the normal range at the end of Pre Swing.



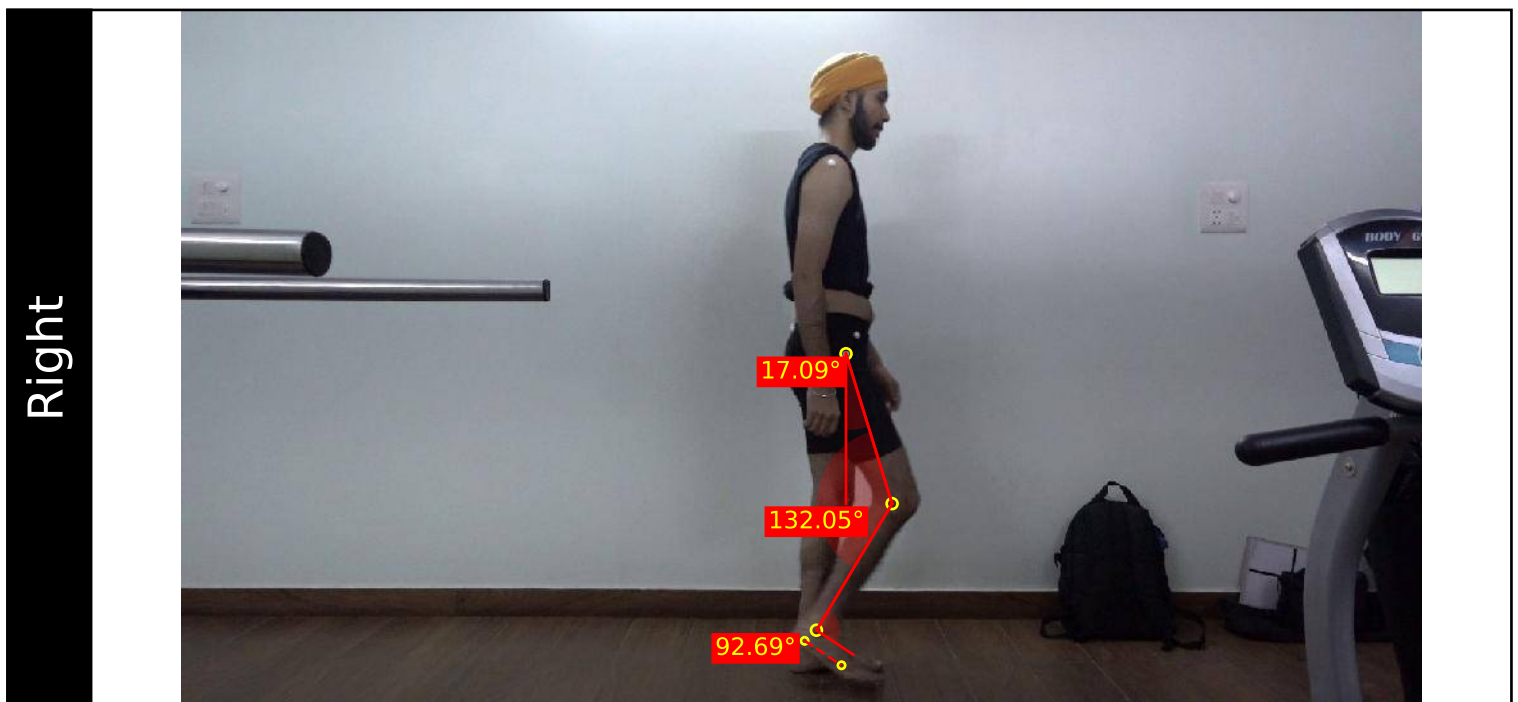
Right Hip Angle is within the normal range at the end of Pre Swing.
Right Knee Angle is within the normal range at the end of Pre Swing.
Right Ankle Angle is within the normal range at the end of Pre Swing.

INITIAL SWING | Lateral View

Begins at the end of Preswing and ends when the swinging foot is opposite the stance foot.



Left Hip flexes more than normal at the end of Initial Swing (Minor Deviation).
Left Knee Angle is within the normal range at the end of Initial Swing.
Left Ankle dorsiflexes more than normal at the end of Initial Swing (Major Deviation).



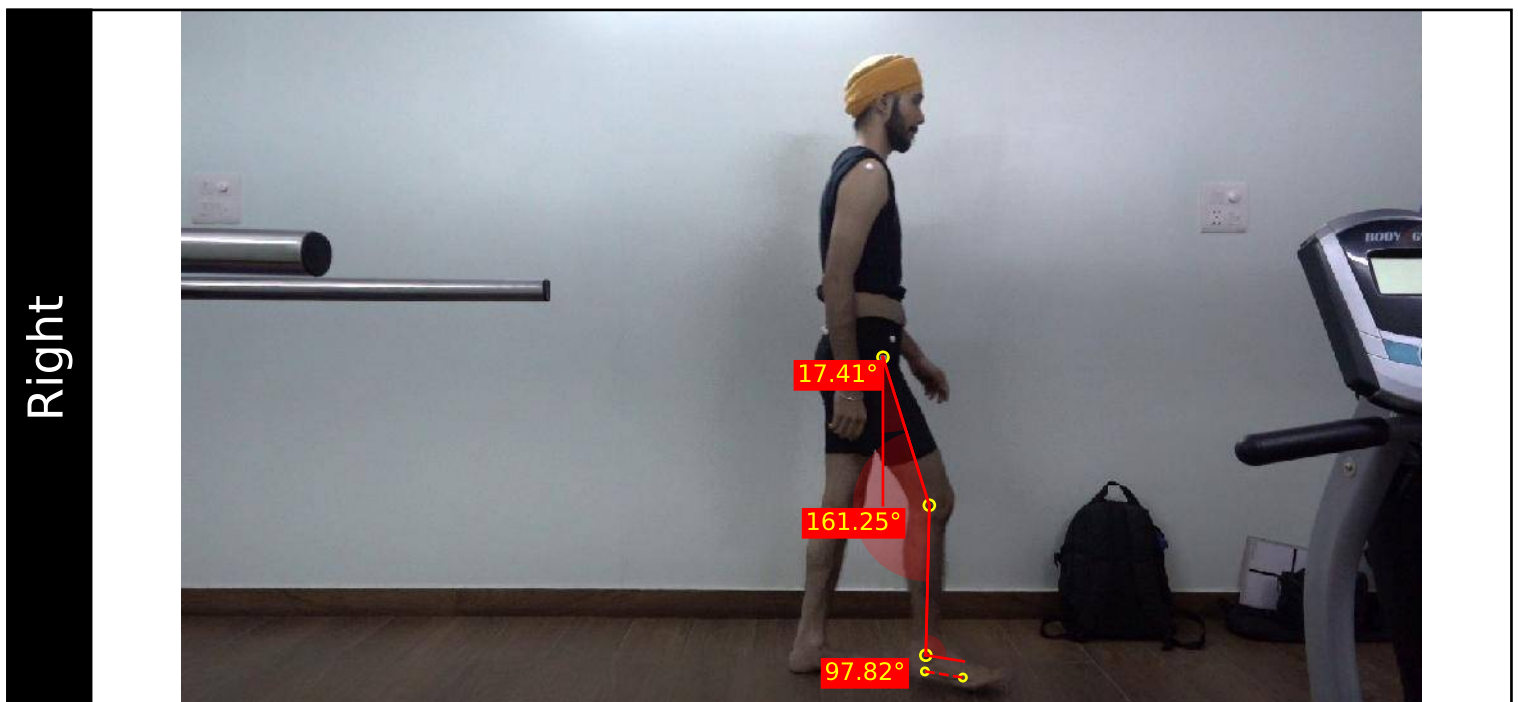
Right Hip flexes more than normal at the end of Initial Swing (Minor Deviation).
Right Knee extends more than normal at the end of Initial Swing (Major Deviation).
Right Ankle dorsiflexes more than normal at the end of Initial Swing (Minor Deviation).

MID SWING | Lateral View

Begins at the end of Initial Swing and ends when the swinging limb is forward and the tibia is vertical



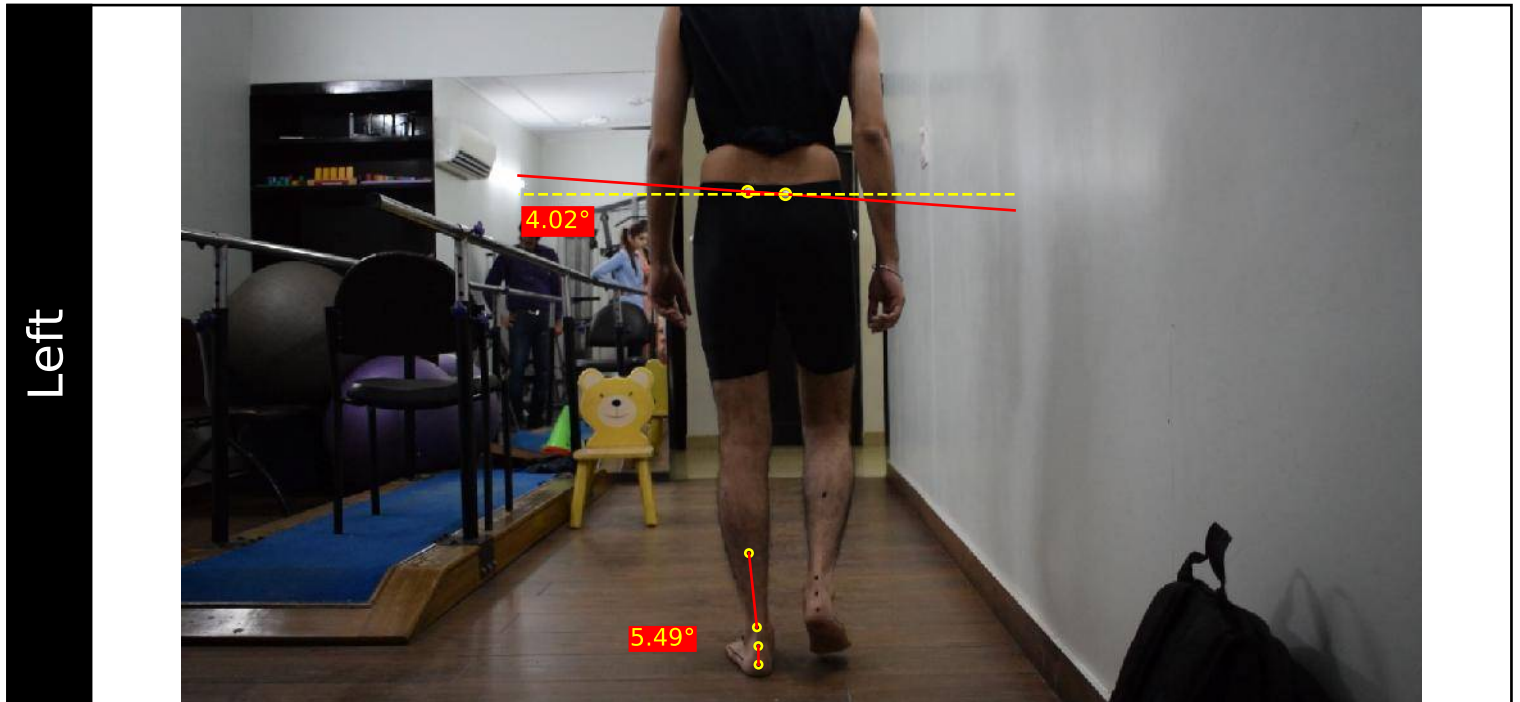
Left Hip Angle is within the normal range at the end of Mid Swing.
Left Knee Angle is within the normal range at the end of Mid Swing.
Left Ankle plantarflexes more than normal at the end of Mid Swing (Minor Deviation).



Right Hip extends more than normal at the end of Mid Swing (Minor Deviation).
Right Knee extends more than normal at the end of Mid Swing (Minor Deviation).
Right Ankle plantarflexes more than normal at the end of Mid Swing (Minor Deviation).

MID STANCE | Posterior View

Instant when the body's center of mass (COM) is directly over the foot.



Contralateral Pelvic Drop is adequate at Mid Stance.
Left Rearfoot Eversion is adequate at Mid Stance.

Automatic Notes



Contralateral Pelvic Drop is adequate at Mid Stance.
Right Rearfoot everts more than normal at Mid Stance (Major Deviation).

Automatic Notes

MID STANCE | Anterior View

Instant when the body's center of mass (COM) is directly over the foot.

Left



Center of Left Patella is medial to the second toe (Minor Deviation).



Automatic Notes

Right



Center of Right Patella is lateral to the second toe (Minor Deviation).



Automatic Notes

Anterior Pelvic Tilt

Measure other data parameters in addition to the inbuilt gait analysis protocol



Anterior Pelvic tilt within normal range