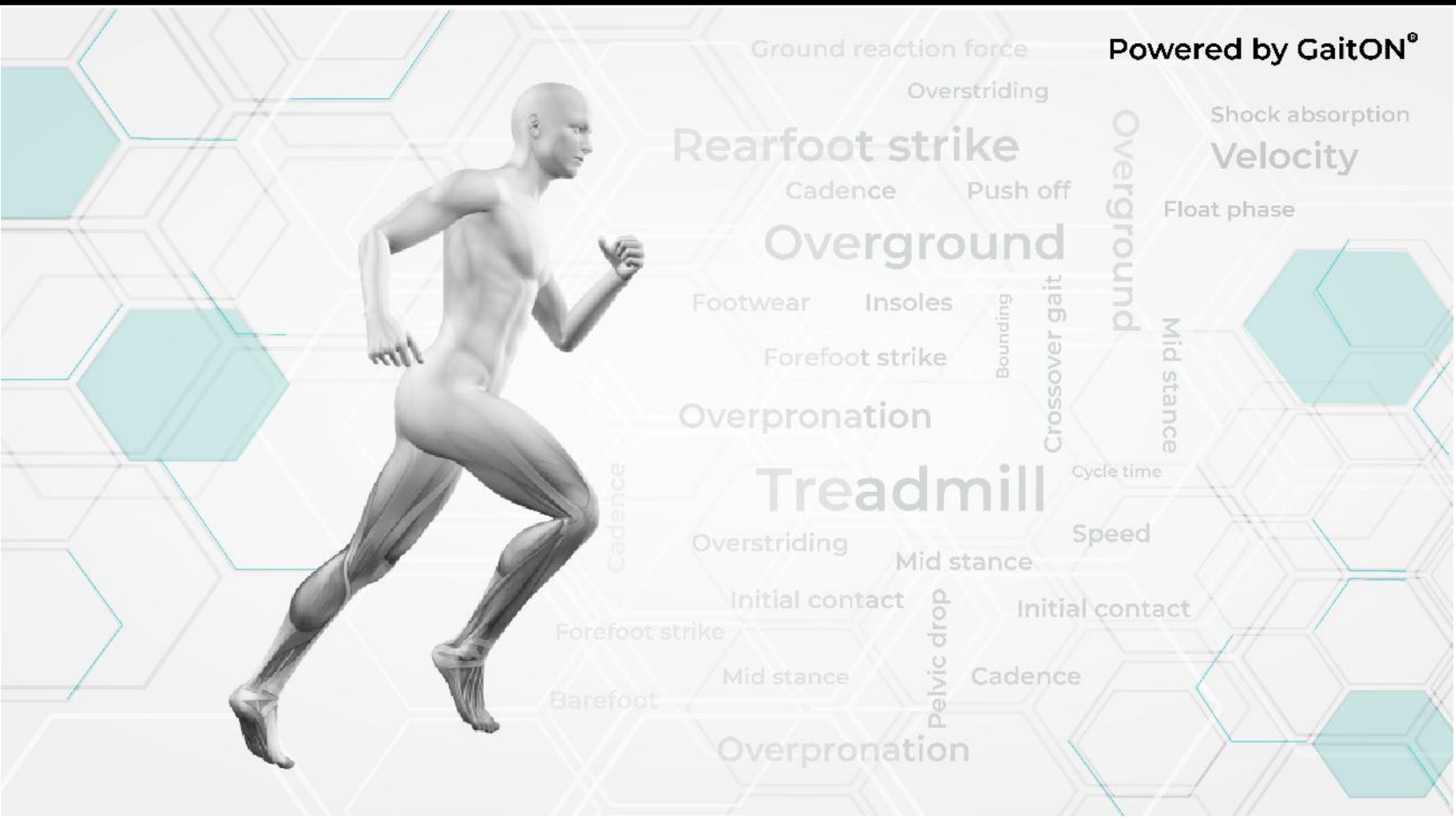
# report | Running Analysis




**YOUR LOGO**

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

# KINEMATIC DATA

*GaitON's running analysis protocol highlights any abnormal joint motion during the running gait cycle.*

## LATERAL VIEW

| INITIAL CONTACT *(Parameters assess shock absorption capability of the stance phase leg)* | | | |
|---|---|---|---|
| Parameter | Right | Left | Reference Value |
| Knee Angle[a] | 159.7° | **168.7°** | <160° |
| Leg Inclination Angle[b] | (-) 3.3° | **(-) 10.1°** | ±5° from the vertical |
| **MID STANCE** *(Parameters assess the weight bearing strength of the stance phase leg)* | | | |
| Knee Angle[a] | 137.1° | **144.4°** | <140° |
| Knee-Toe Alignment[c] | **(+) 4.6°** | **(+) 3.8°** | 0° |
| **PUSH OFF** *(Parameters assess the ability of the stance phase leg to propel the body forward)* | | | |
| Ankle Plantarflexion[d] | **123.2°** | 110.3° | 110° to 120° |
| Hip Extension[e] | (-) 16.1° | (-) 17.8° | (-) 16° to (-) 25° |
| **MID FLOAT** *(Parameters assess the net vertical movement of the COM during the gait cycle)* | | | |
| COM Vertical Excursion | 7.72 cm | 8.1 cm | 6 cm to 10 cm |

Normal Values

## POSTERIOR VIEW

| MID STANCE | | | |
|---|---|---|---|
| Parameter | Right | Left | Reference Value |
| Rear Foot Angle[f] | **(+) 22.9°** | (+) 11.2° | Neutral:<br>(+) 9° to (+) 13° |
| Pelvic Drop[g] | **(+) 8.3°** | **(+) 7.2°** | 0° to (+) 5° for males<br>0° to (+)7° for females |
| Trunk Side Bend[h] | **(+) 7.3°** | **(+) 7.9°** | ± 5° from the vertical |

## ANTERIOR VIEW

| MID STANCE | | | |
|---|---|---|---|
| Parameter | Right | Left | Reference Value |
| Knee Ab/Adduction[i] | **(+) 0.1°** | **(-) 6.9°** | 0° |

Detect assymetries by comparing right and left leg values

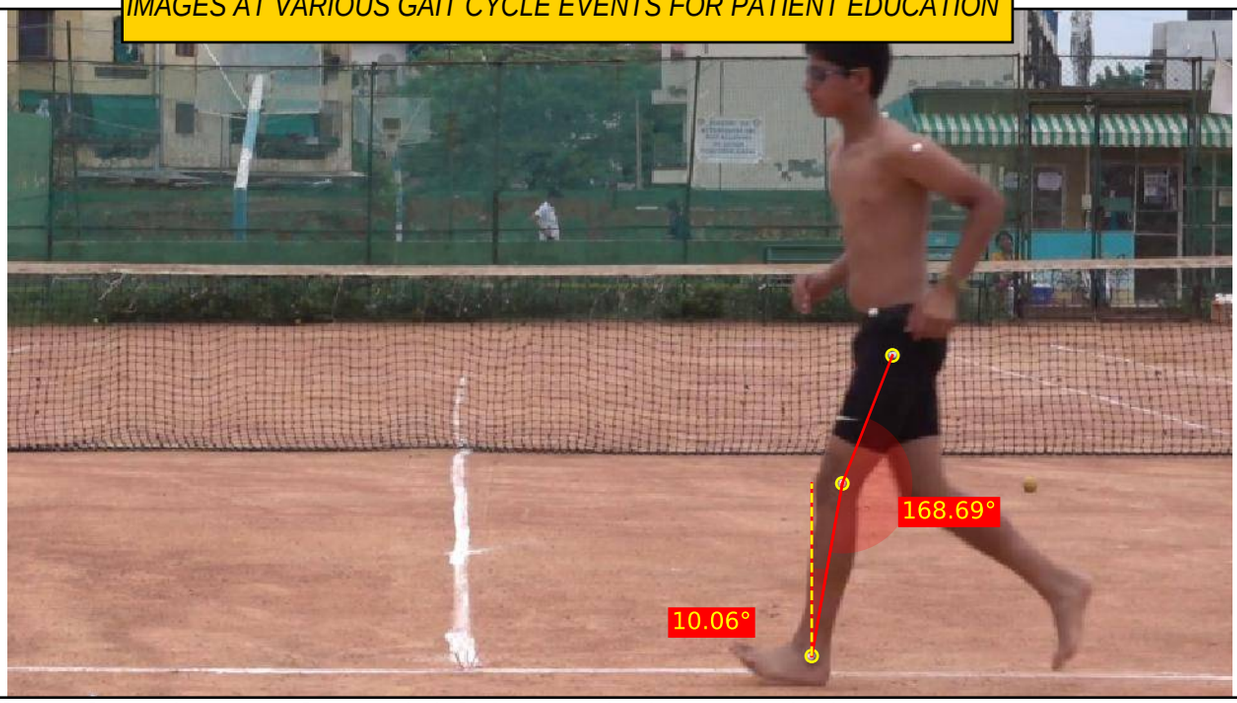
a. Knee angle > 180 denotes hyperextension while knee angle < 180 denotes flexion.
b. Flexed tibia is shown as [+] and extended tibia is shown as [-].
c. Knee Toe Alignment is shown as [+] when knee is ahead of the toes and [-] when knee is behind the toes
d. Ankle angle > 90 denotes plantarflexion while ankle angle < 90 denotes dorsiflexion.
e. Hip flexion is shown as (+) and hip extension is shown as (-).
f. Rear foot Eversion is denoted as (+) and Rear foot inversion is denoted as (-). Reference values as follows:
Underpronation: (+)3° to (+)8.9°.
Overpronation: (+)13° to (+)18°.
Severe Overpronation: >(+)18°.
g. Contralateral pelvic drop is shown as (+) while ipsilateral pelvic drop is shown as (-).
h. Ipsilateral trunk flexion is shown as (+) while Contralateral trunk flexion is shown as (-).
i. Knee Ab/Adduction is [+] when patella is medial to the 2nd toe and [-] when patella is lateral to the 2nd toe.

# INITIAL CONTACT | Lateral View

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

*IMAGES AT VARIOUS GAIT CYCLE EVENTS FOR PATIENT EDUCATION*

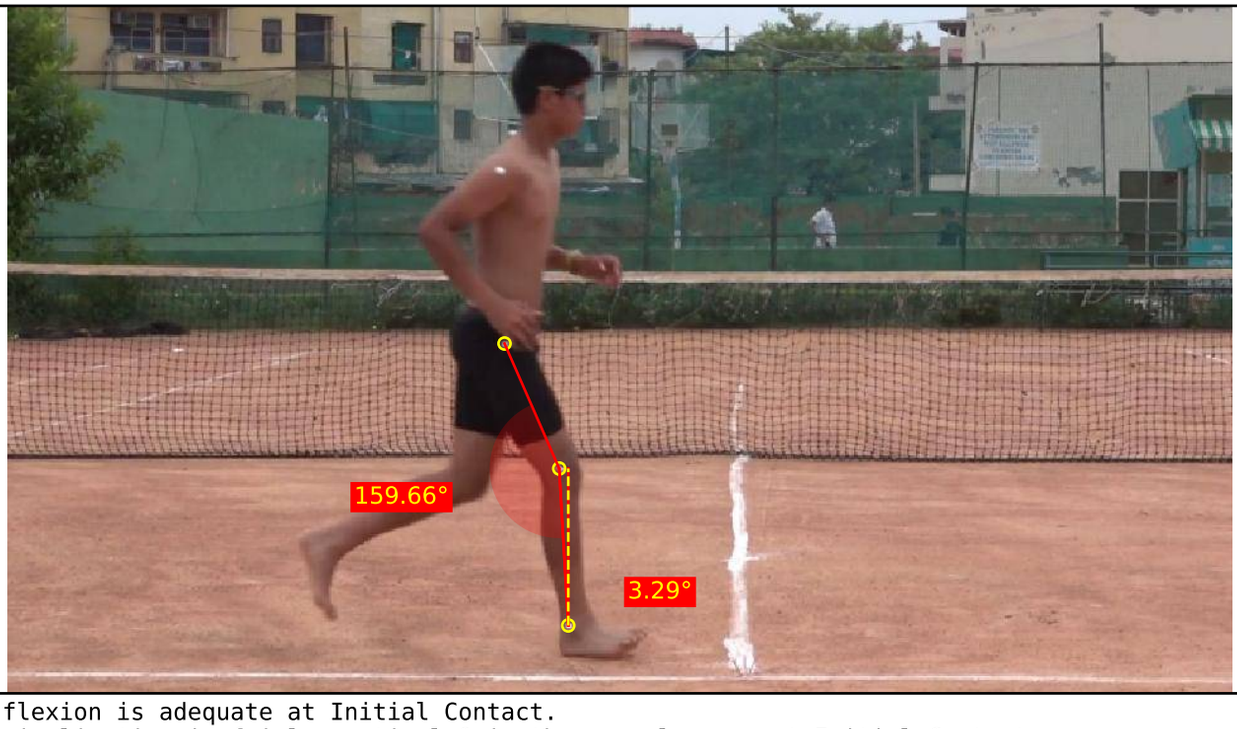
Left




Left Knee flexes less than normal at Initial Contact (Major Deviation).
Left Tibia Inclination is in an extended orientation & outside the normal range at Initial Contact (Major Deviation).

Automatic Notes

Right



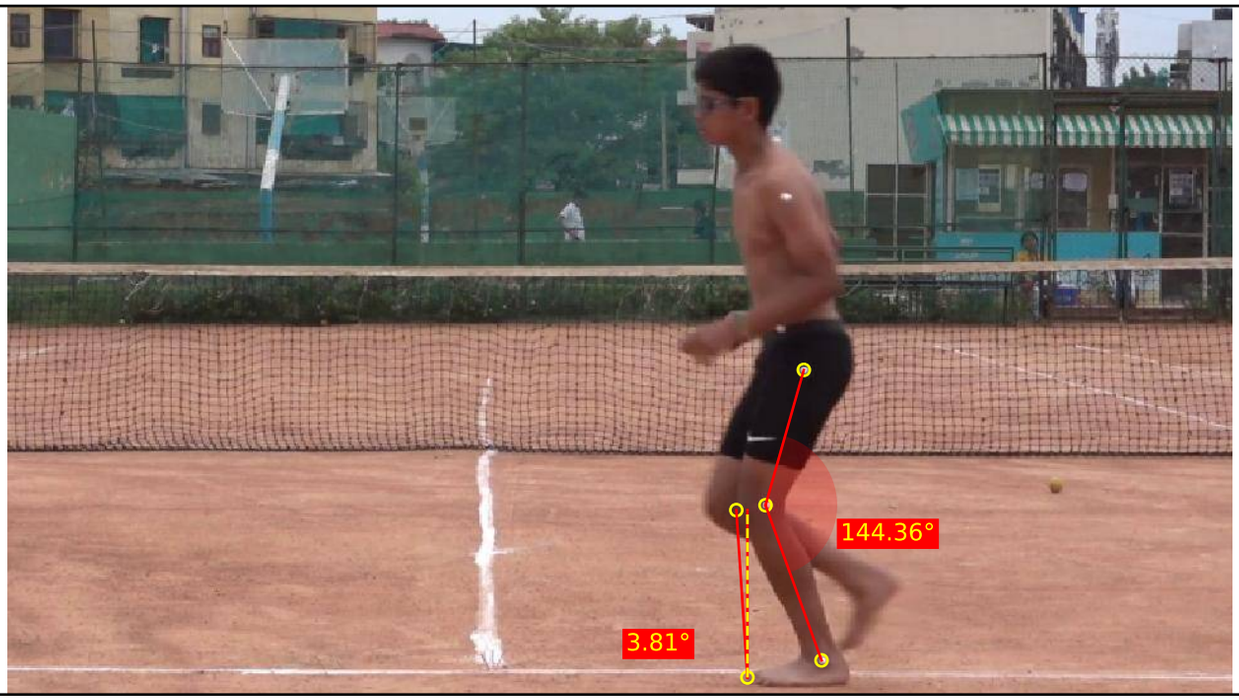

Right Knee flexion is adequate at Initial Contact.
Right Tibia inclination is fairly vertical & in the normal range at Initial Contact.

Automatic Notes

# MID STANCE | Lateral View

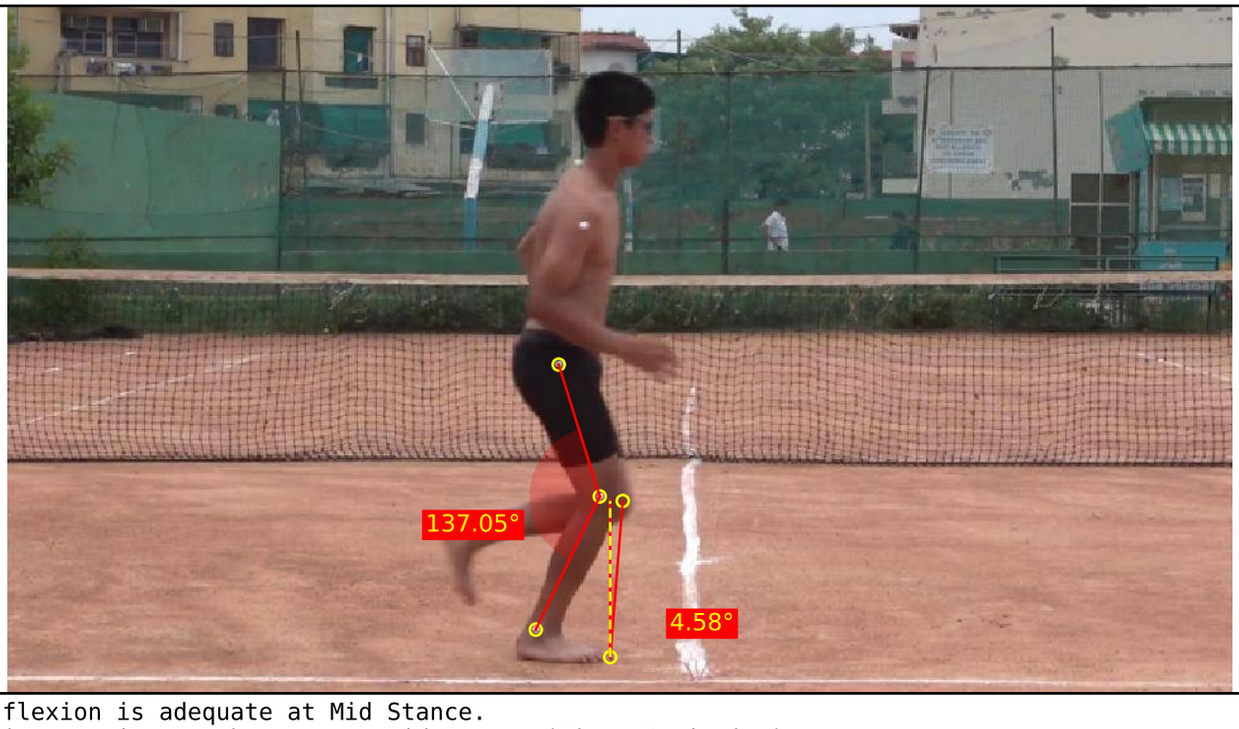
Instant when the body's center of mass (COM) is directly over the foot

Left




Left Knee flexes less than normal at Mid Stance (Minor Deviation).
Left Knee is anterior to the toes at Mid Stance (Minor Deviation).

Right

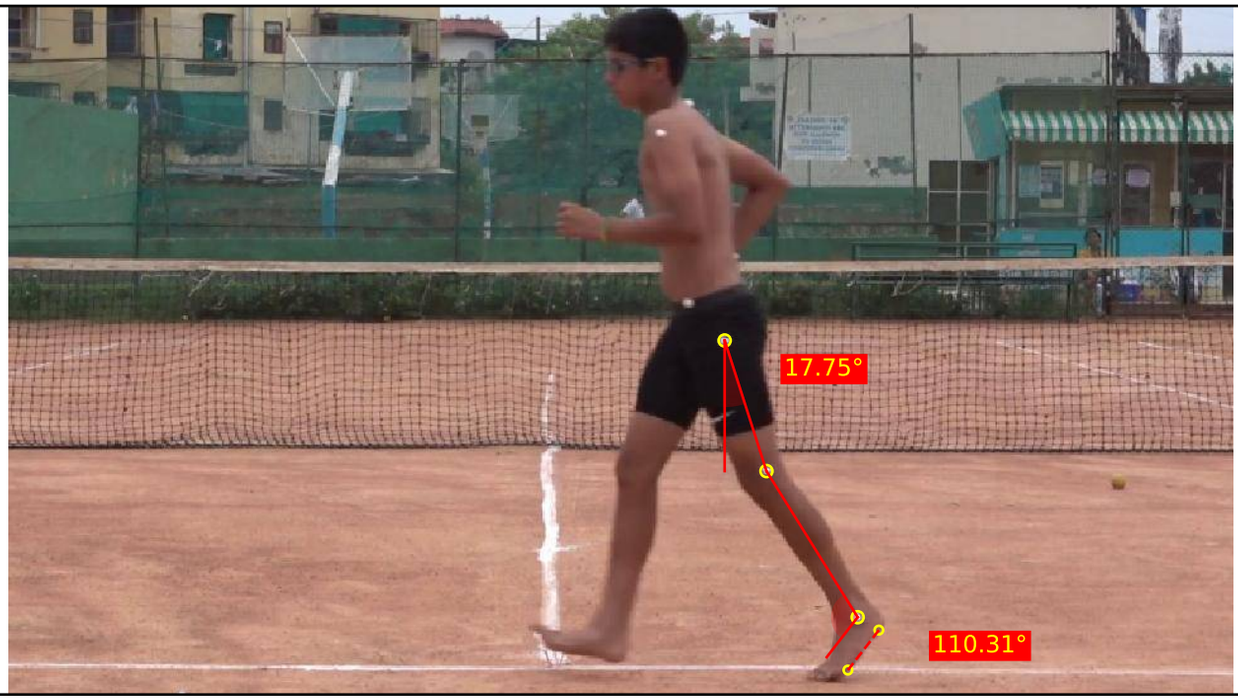



Right Knee flexion is adequate at Mid Stance.
Right Knee is anterior to the toes at Mid Stance (Minor Deviation).

# PUSH OFF | Lateral View

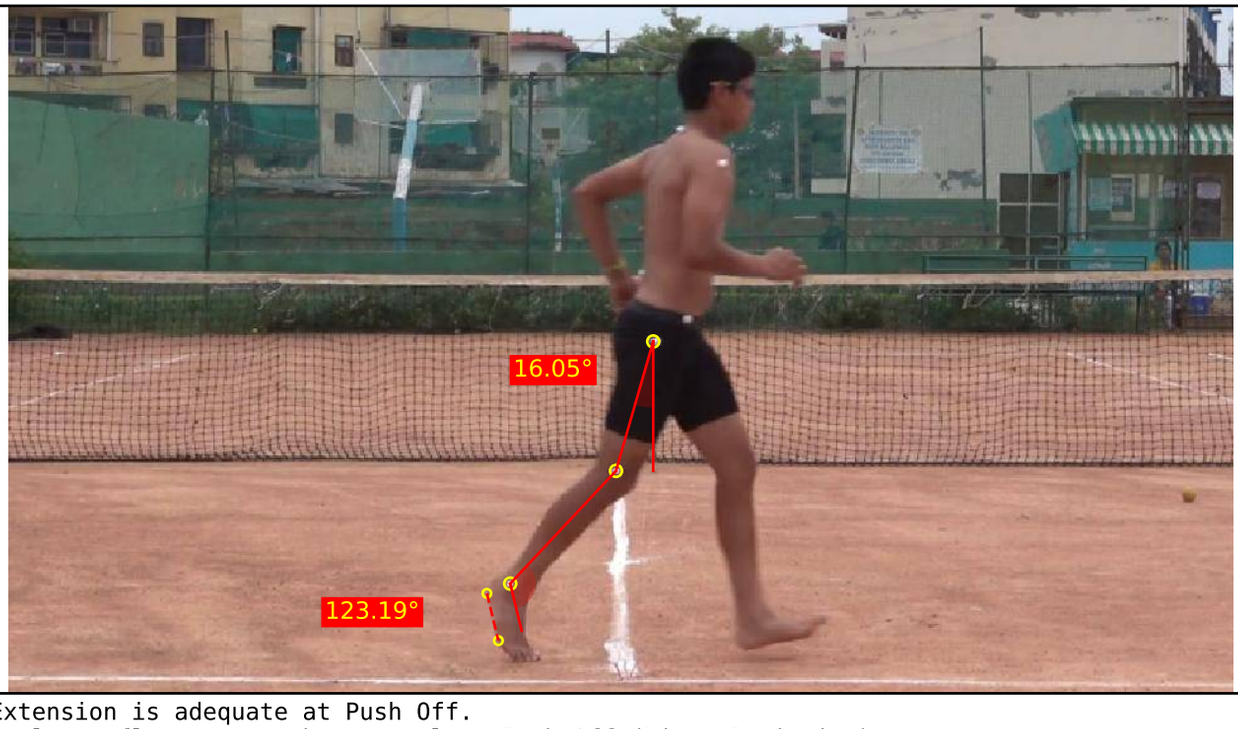
Instant at which the toe leaves the ground.

Left




Left Hip Extension is adequate at Push Off.
Left Ankle Plantarflexion is adequate at Push Off.

Right

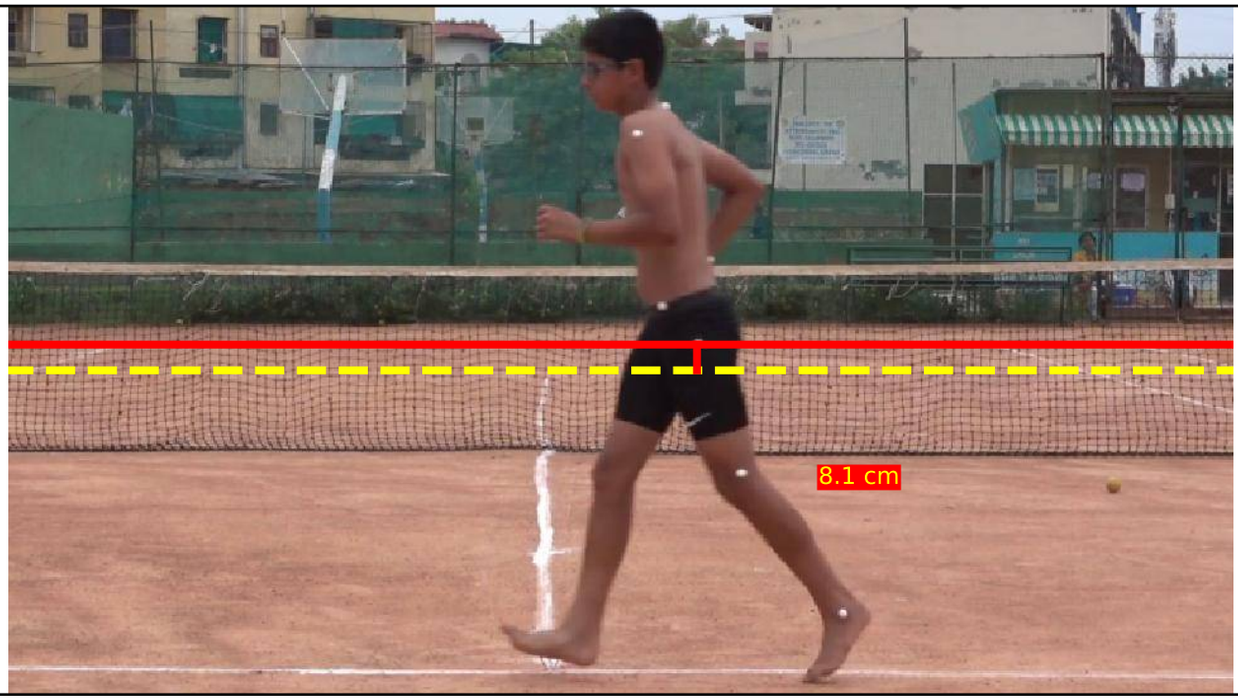



Right Hip Extension is adequate at Push Off.
Right Ankle plantarflexes more than normal at Push Off (Minor Deviation).

# MID FLOAT | Lateral View

Instant when the body's COM is at the highest vertical position in the gait cycle.

Left




COM Vertical Excursion is in the generally acceptable range of 6-10 cm.

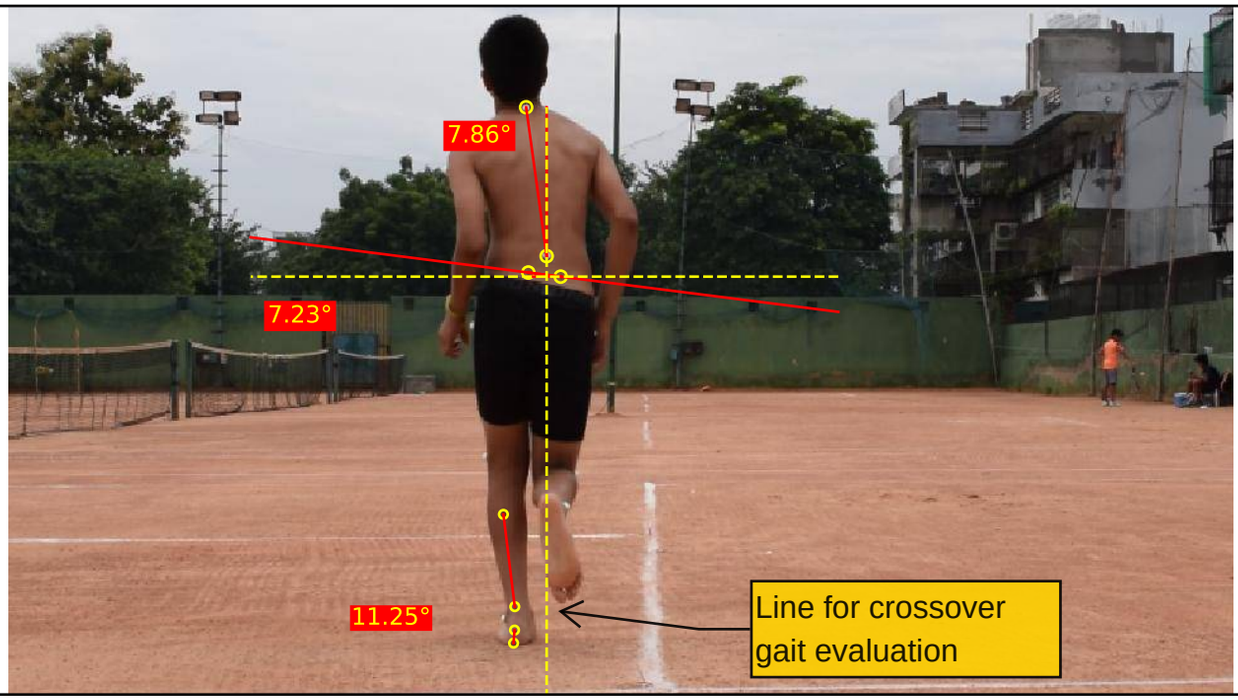
Right


COM Vertical Excursion is in the generally acceptable range of 6-10 cm.

# MID STANCE | Posterior View

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

Left

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Excessive Ipsilateral Trunk Lean present at Mid Stance (Minor Deviation).
Contralateral Pelvic Drop is excessive at Mid Stance (Minor Deviation).
Left Rearfoot Eversion is adequate at Mid Stance.
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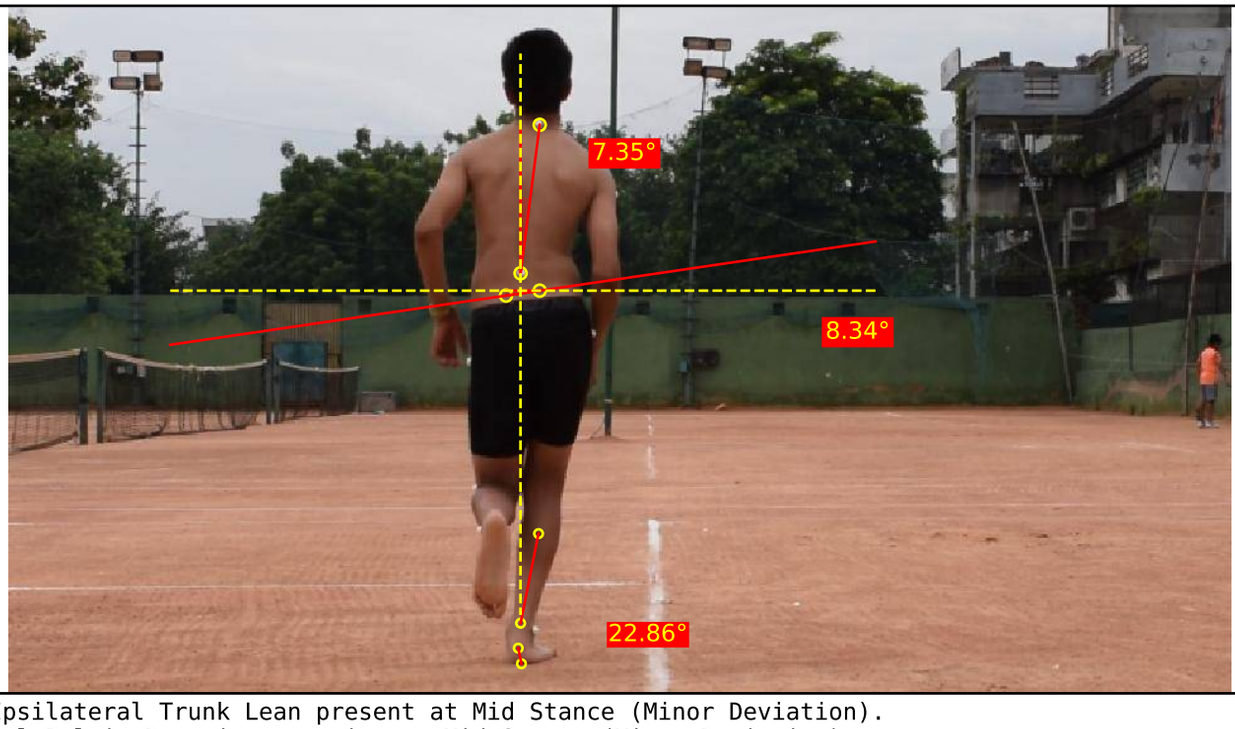
Right




```
Excessive Ipsilateral Trunk Lean present at Mid Stance (Minor Deviation).
Contralateral Pelvic Drop is excessive at Mid Stance (Minor Deviation).
Right Rearfoot everts more than normal at Mid Stance (Major Deviation).
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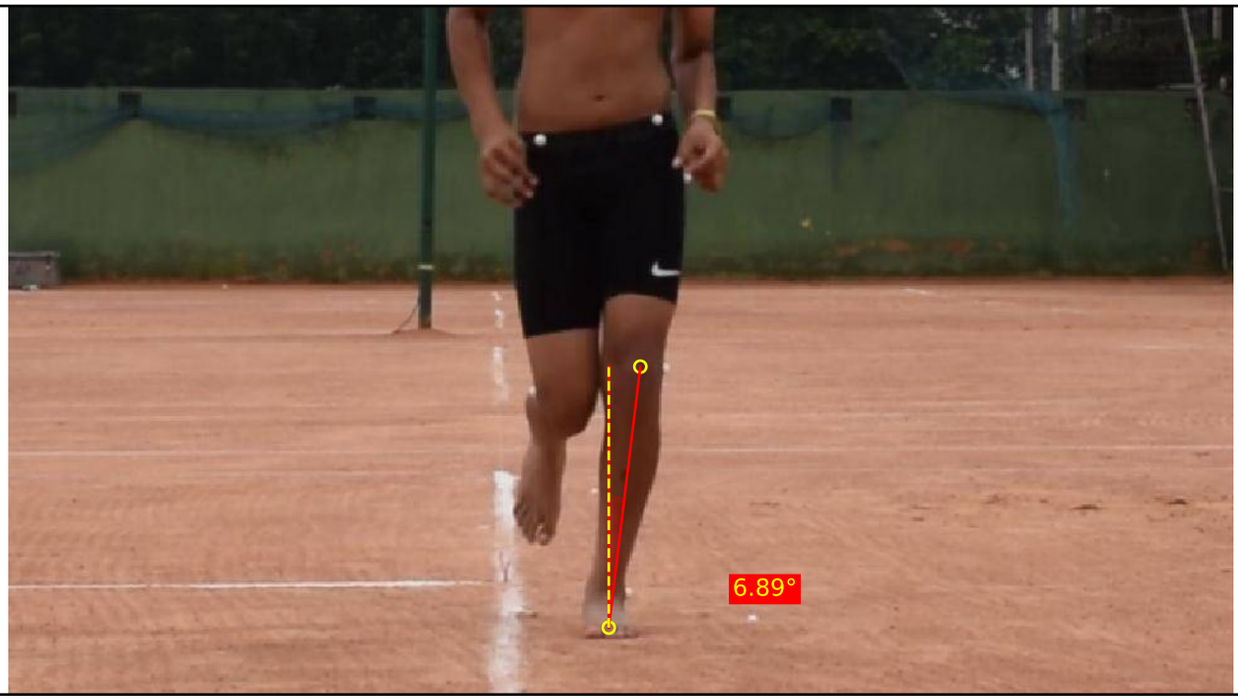
Automatic Notes

# MID STANCE | Anterior View

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

Left




Center of Left Patella is lateral to the second toe (Major Deviation).

Right


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

# Anterior Pelvic Tilt

It is also possible to measure additional data apart from the the inbuilt gait analysis protocol


Anterior Pelvic Tilt within normal range

# Trunk Lean