

GaitON[®]

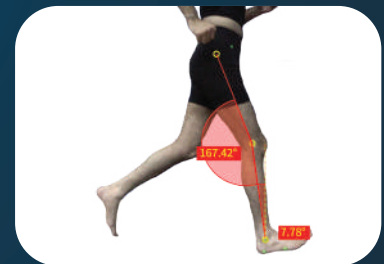
by auptimo



Posture Analysis



Walking Gait analysis



Running Gait Analysis



Sitting Posture Analysis



Tennis Serve Analysis



Golf Swing Analysis

GaitON is trusted by **200+ clinicians**
globally for gait & posture analysis
Is your center GaitON ready?

WORKFLOW

A 3 step process to complete a biomechanical assessment

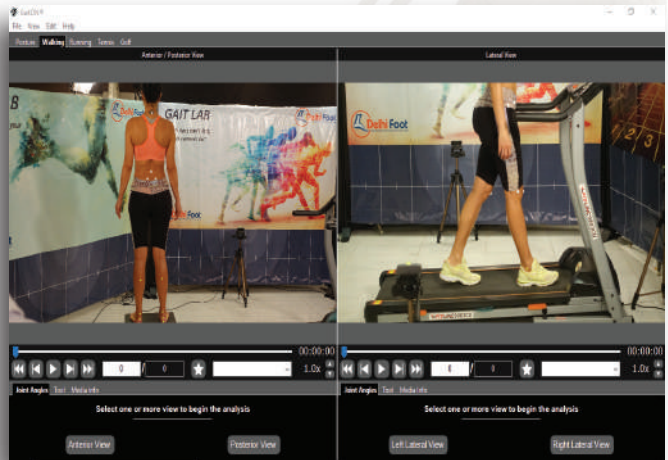


1. CAPTURE

Capture the patient's motion from multiple views using cameras.

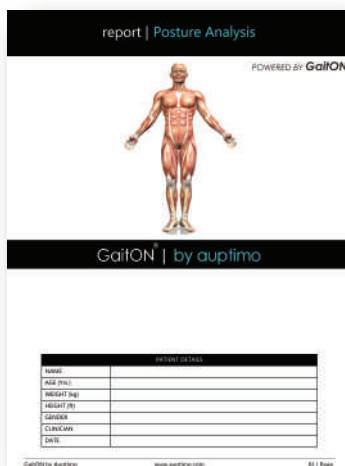
2. ANALYZE

Analyse the motion using GaitON's inbuilt protocols.

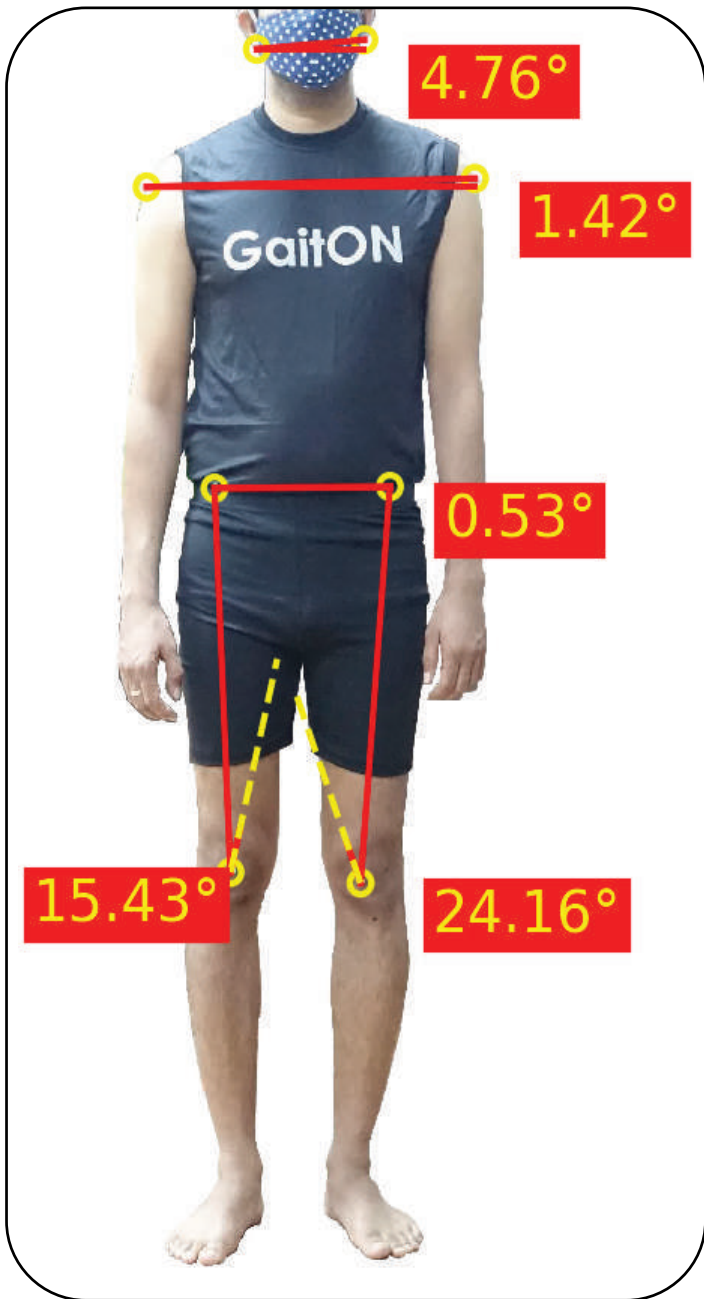


3. REPORT

Export the analysis results to well organised and print ready reports.

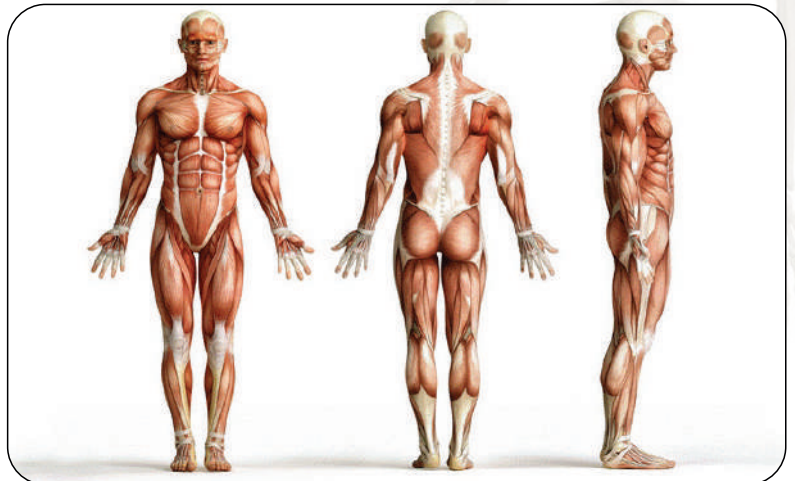


POSTURE ANALYSIS



GaitON's posture analysis protocol identifies key postural deviations from multiple views & exports all data to a report.

VIEWS ANALYZED

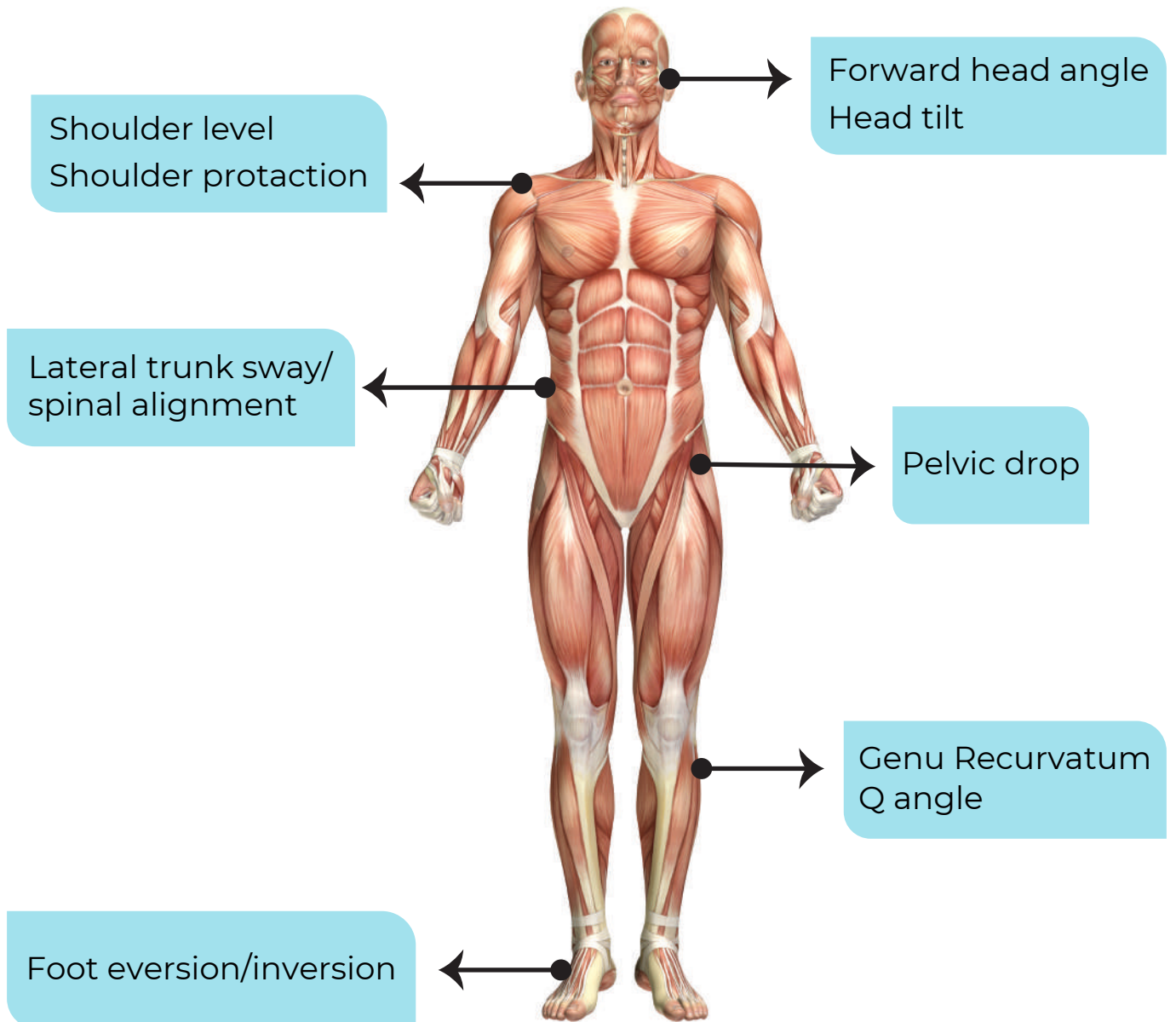


ANTERIOR . POSTERIOR . LATERAL

TIME PER ANALYSIS
5 MINUTES

KEY DATA MEASURED

GaitON's posture analysis protocol analyses the upper & lower body posture of the patient from anterior, posterior & lateral views.

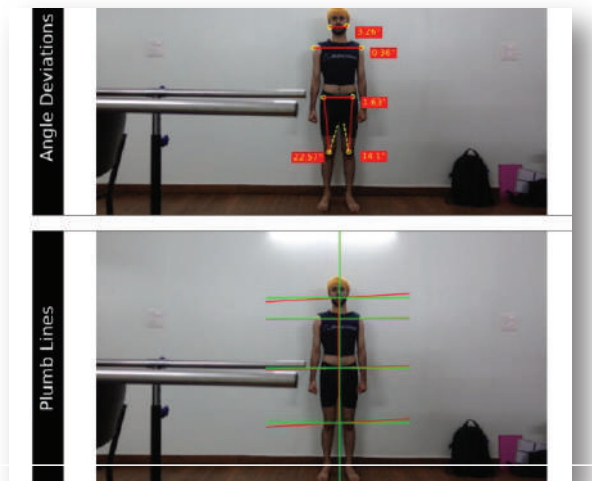


POSTURE REPORTS : KEY FEATURES

Inbuilt reference values for an **accurate diagnosis.**

Comparison of left & right extremity posture.

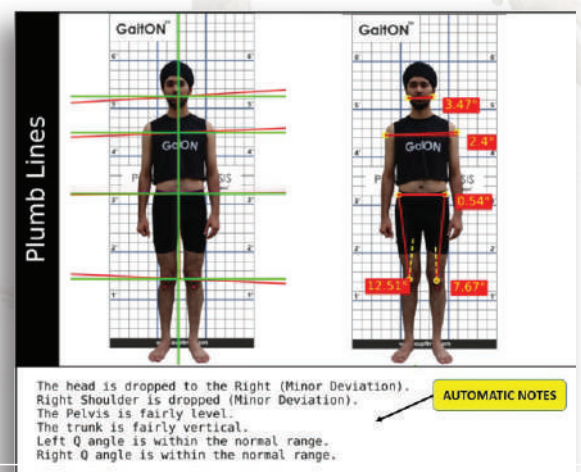
KINEMATIC DATA				
Anterior View				
Parameter	Assessment Value	Reference Value		
Horizontal alignment of the Head ^a	(+) 0.9°	0°		
Horizontal alignment of the Acromions ^a	(+) 0.0°	0°		
Horizontal alignment of the ASISs ^a	(+) 2.3°	0°		
Lateral Trunk Alignment ^b	(-) 2.3°	0°		
Anterior View				
Parameter	Left	Reference Value	Right	Reference Value
Q Angle ^c	(+) 13.5°	< (+) 15° for Men < (+) 20° for Women	(+) 22.0°	< (+) 15° for Men < (+) 20° for Women
Posterior View				
Parameter	Left	Reference Value	Right	Reference Value
Rear Foot Angle ^d	(+) 1.0°	(-) 5° to (+) 5°	(-) 0.5°	(-) 5° to (+) 5°
Lateral View				
Parameter	Left	Reference Value	Right	Reference Value
Forward Head Angle	58.9°	> 50°	60.9°	> 50°
Shoulder Angle	87.2°	> 52°	83.1°	> 52°



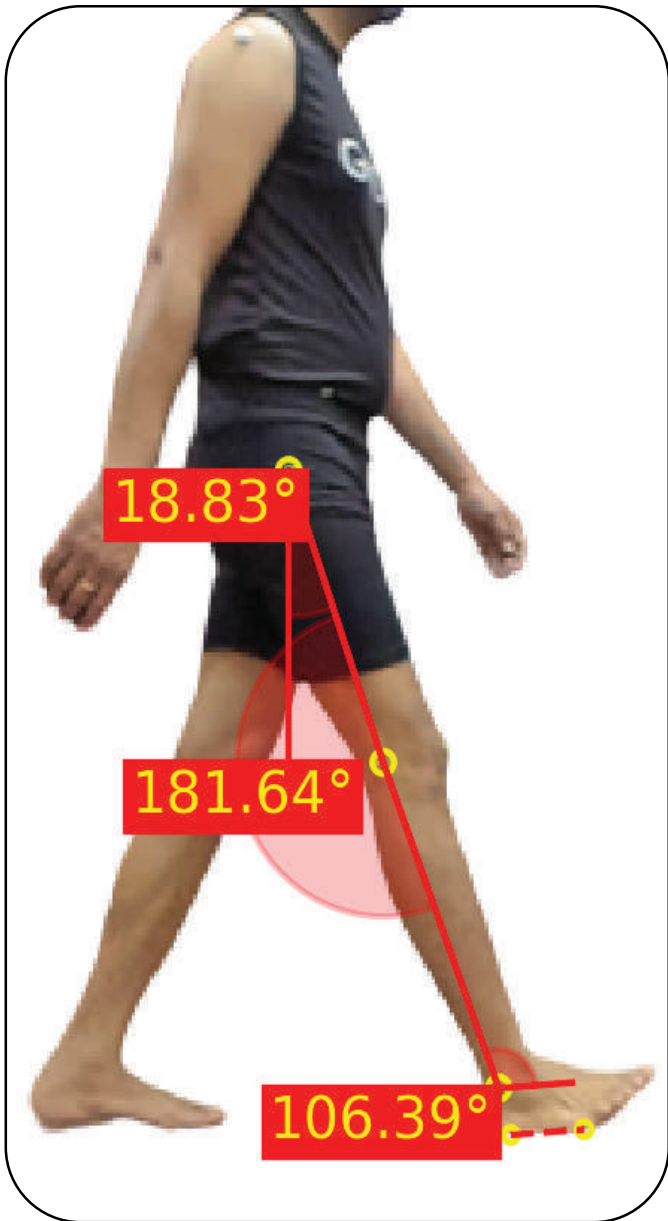
Representation of **postural deviations** through angles & plumb lines.

Automatic **documentation** of all postural deviations.

Pre & Post Assessment of posture after any surgical/ rehab intervention.

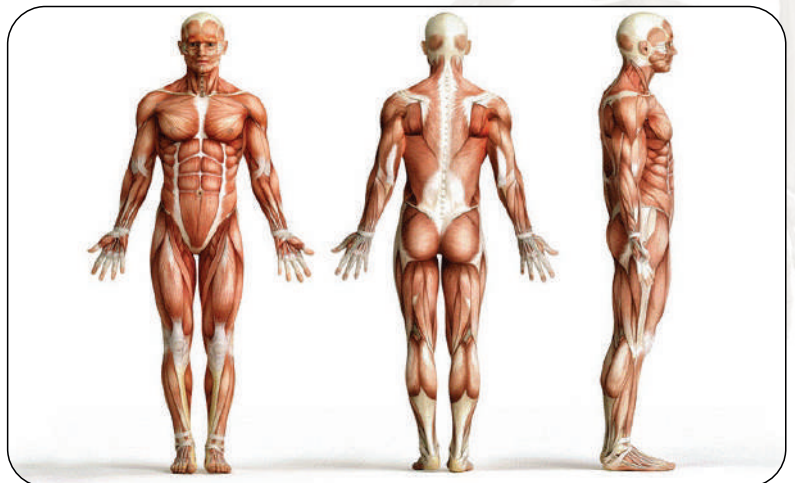


GAIT ANALYSIS



GaitON's gait analysis protocol identifies key walking deviations from multiple views & exports all data to a report.

IEWS ANALYZED

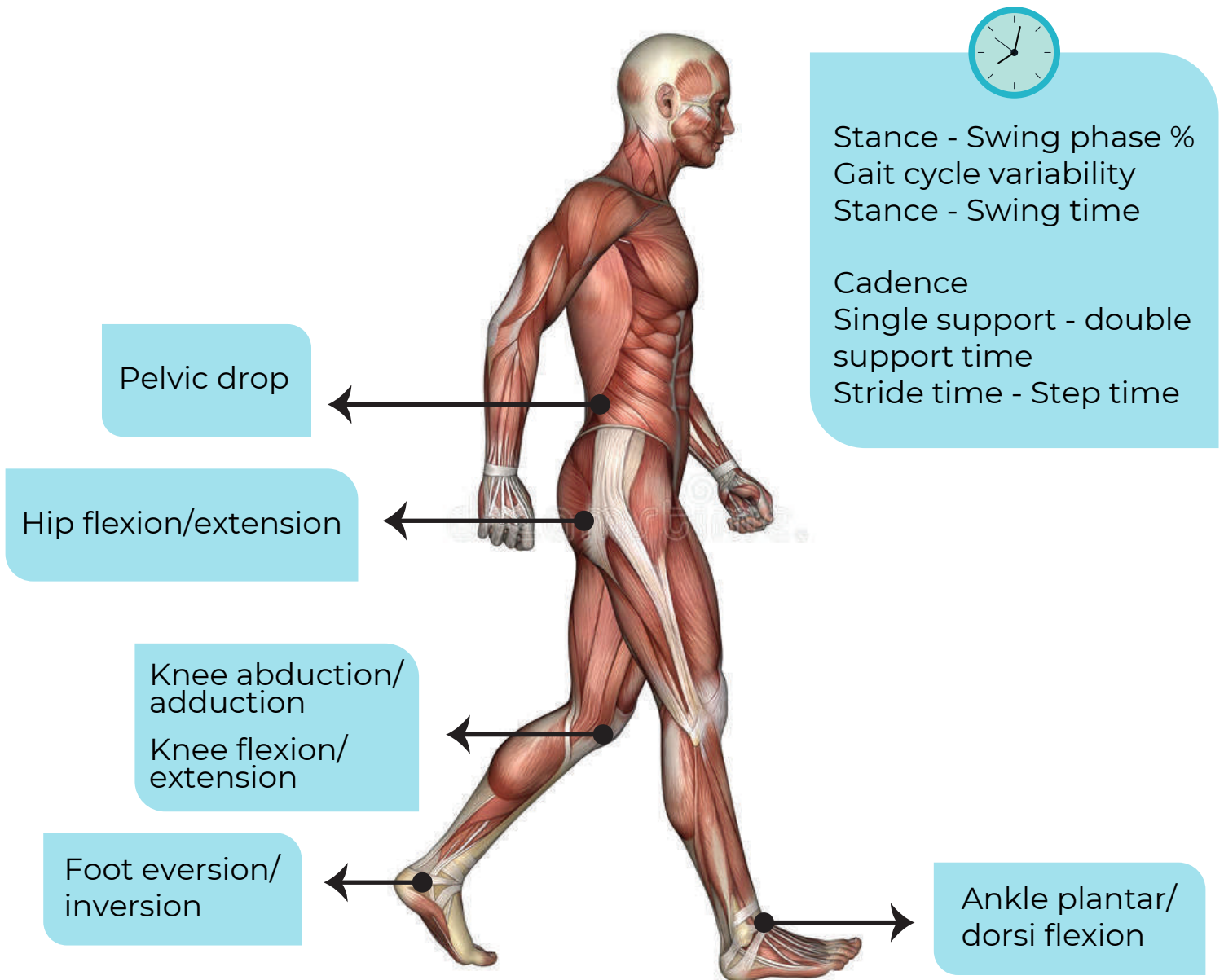


ANTERIOR . POSTERIOR . LATERAL

SURFACE
TREADMILL | WALKWAY

KEY DATA MEASURED

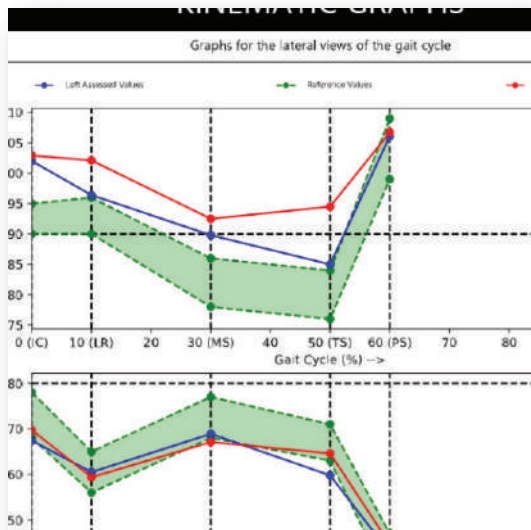
GaitON's gait analysis protocol analyses the pelvis, hip, knee, foot & ankle motion during the entire gait cycle



GAIT REPORTS : KEY FEATURES

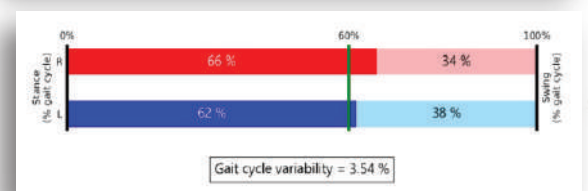
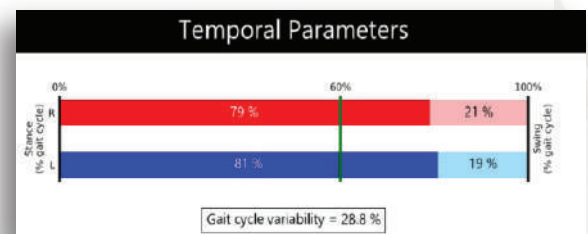
A detailed report with reference values, highlighting all **abnormal gait patterns**.

Comparison between **left & right** extremity gait.

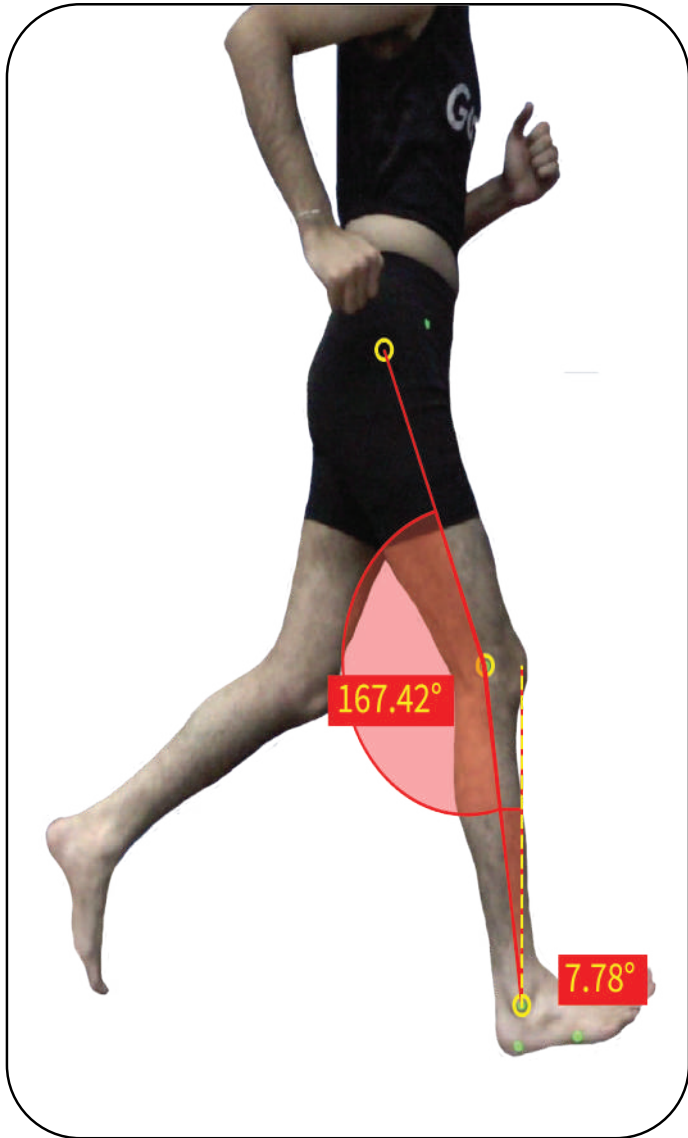


Accurate identification of **muscle imbalances** using kinematic graphs.

Monitor gait changes through **pre-post comparisons**.

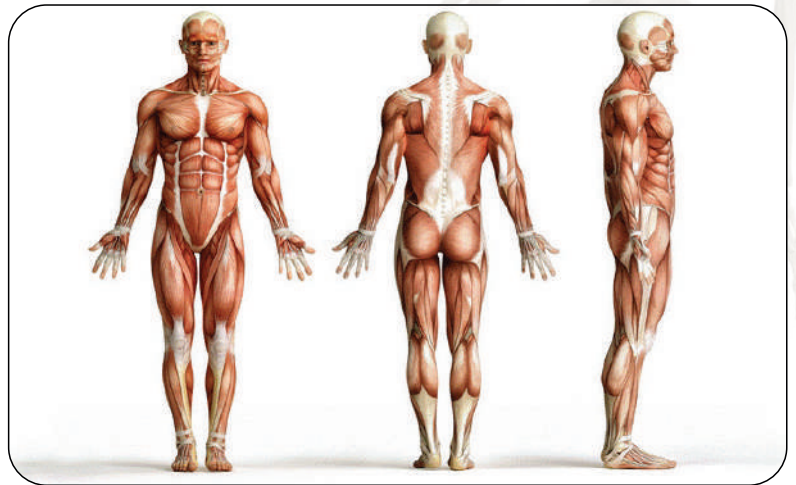


RUNNING ANALYSIS



GaitON's running analysis protocol is based on the directives of UW Health Sports Medicine Clinic, USA & detects any abnormal running gait patterns.

IEWS ANALYZED

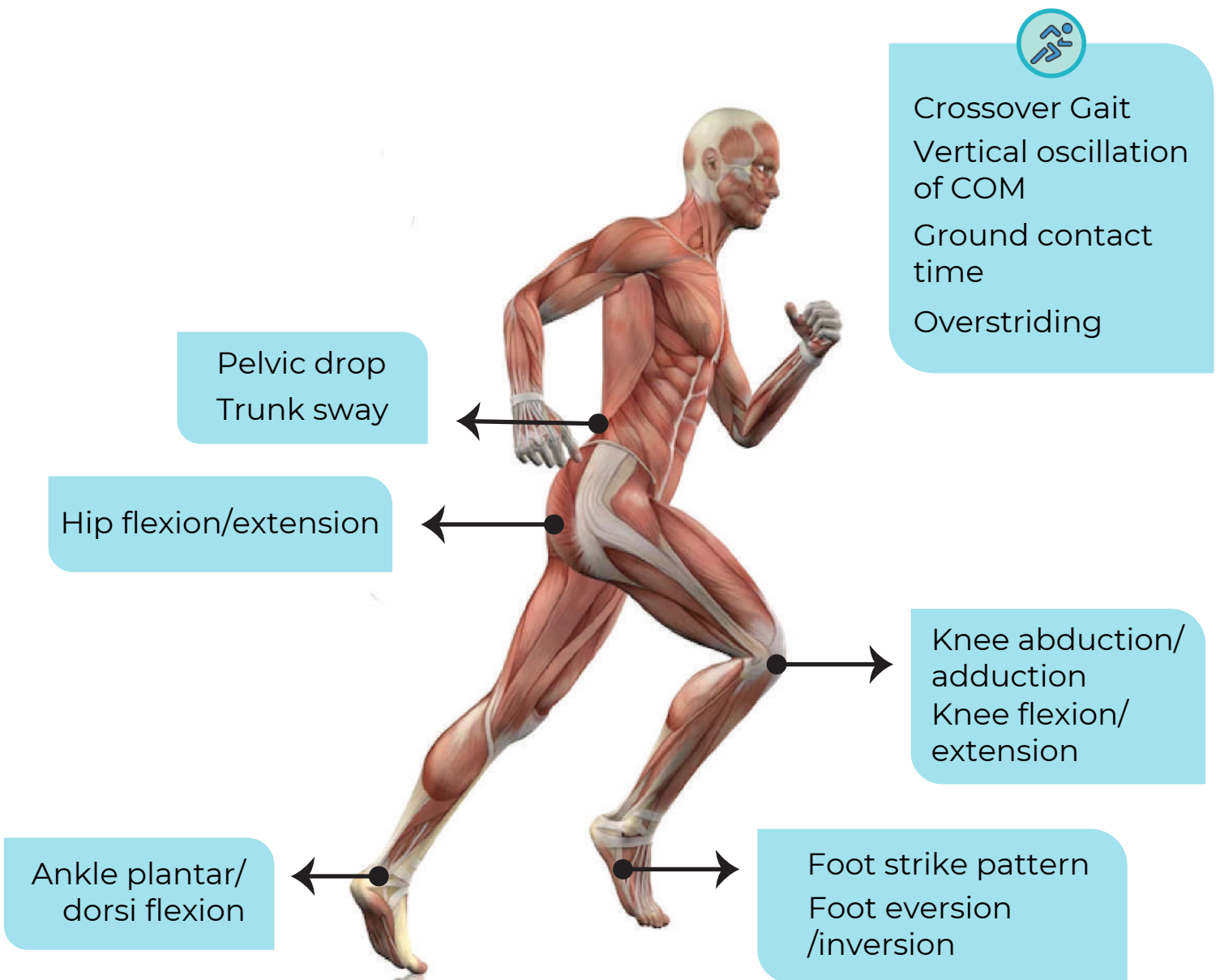


ANTERIOR . POSTERIOR . LATERAL

SURFACE
TREADMILL | RUNNING TRACK

KEY DATA MEASURED

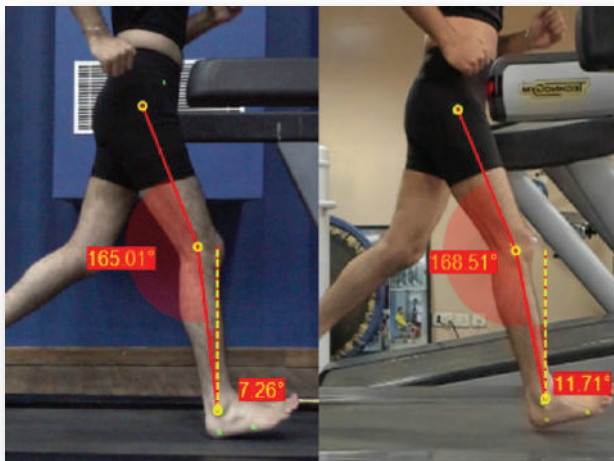
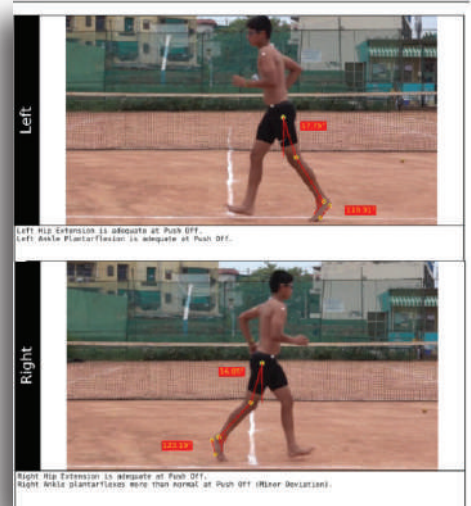
GaitON's running analysis protocol analyses the pelvis, hip, knee, foot & ankle motion during the entire gait cycle



RUNNING REPORTS : KEY FEATURES

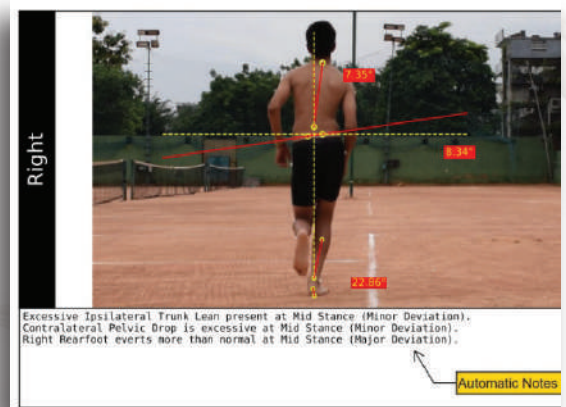
A detailed report with reference values, highlighting all **abnormal gait patterns**.

Comparison between **left & right** extremity gait.

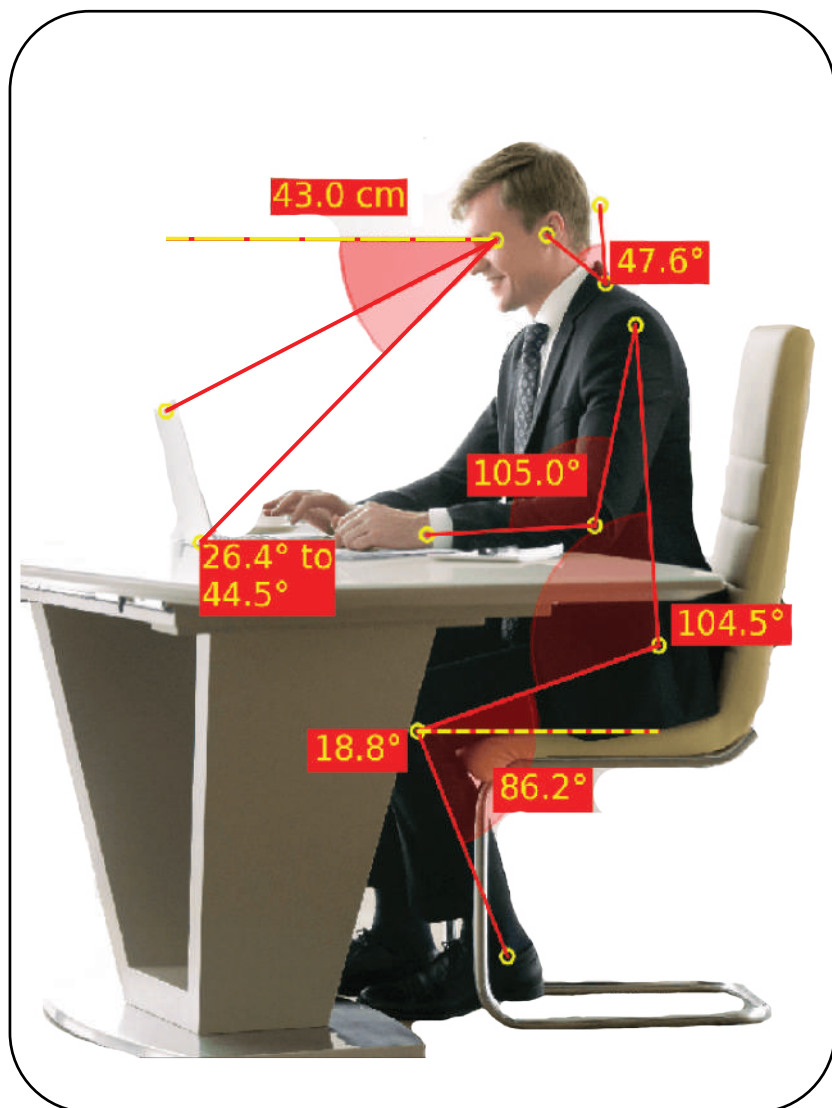


Monitor gait changes through **pre-post comparisons**.

Automatic documentation of all observations.

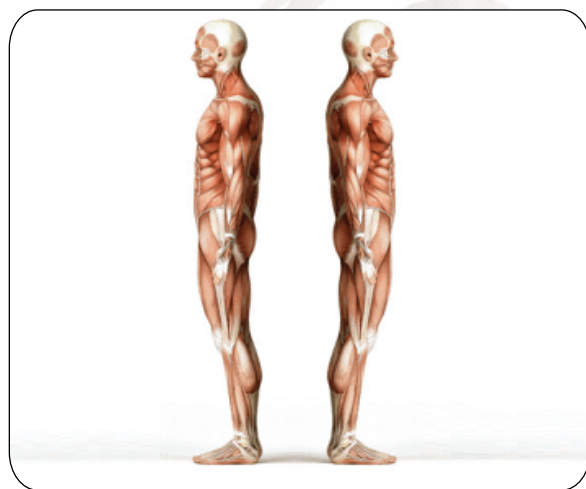


SITTING POSTURE ANALYSIS



GaitON's sitting posture analysis markerless protocol identifies key postural deviations in a few clicks & exports all data to a report.

VIEWS ANALYZED

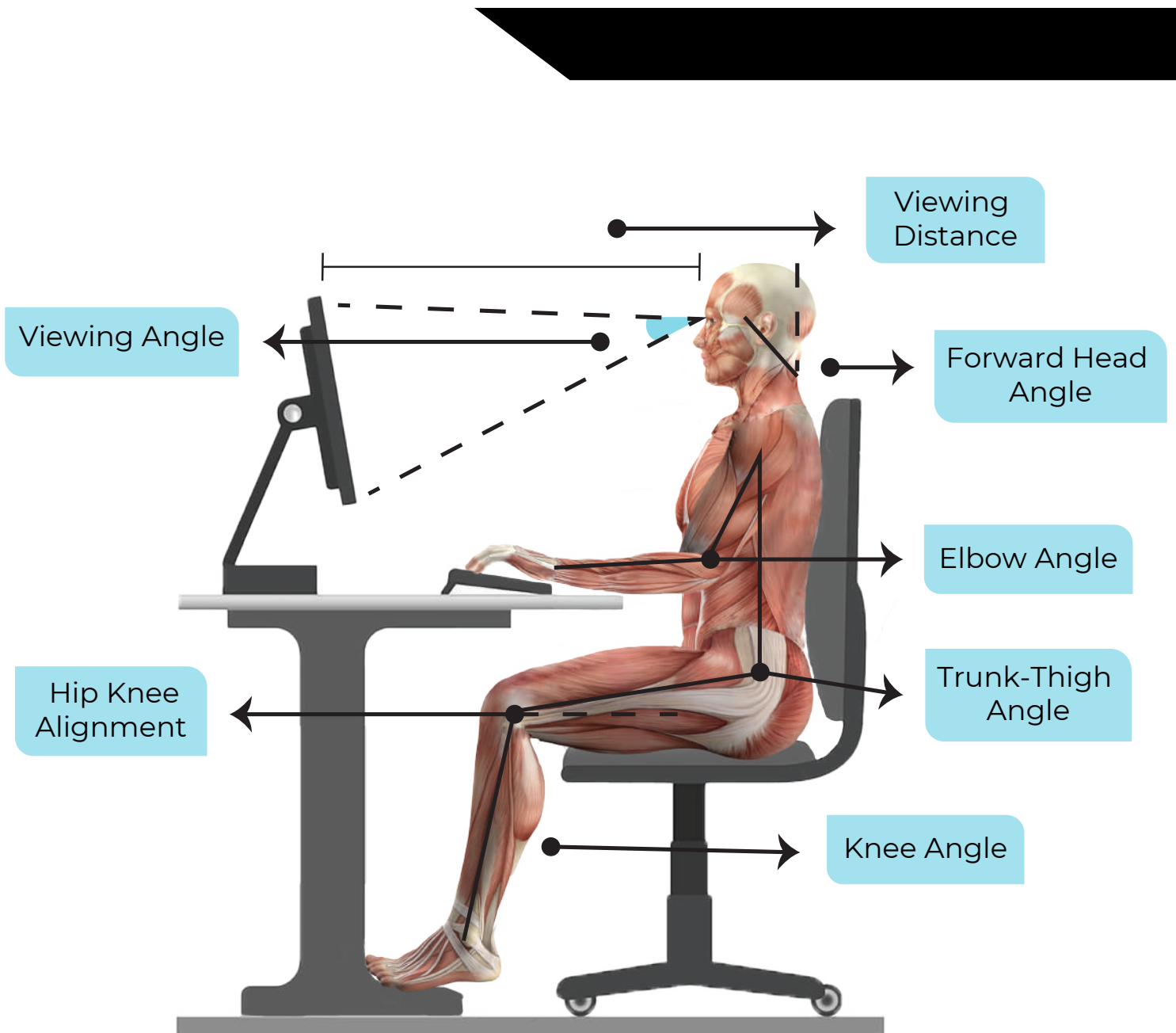


ANTERIOR . POSTERIOR . LATERAL

TIME PER ANALYSIS
5 MINUTES

KEY DATA MEASURED

GaitON's sitting module analyses the complete sitting posture from left and right lateral views.




SITTING POSTURE REPORTS : KEY FEATURES

A detailed report highlighting **abnormal postural deviation** in table and angular form.

Left Lateral View

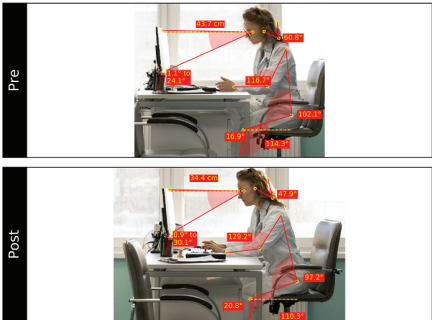
Parameter	Assessment Value	Reference Value
Viewing Distance	34.4 cm	> 50 cm
Viewing Angle	(-10.9° to +)30.1°	0° to (+)30°
Forward Head Angle	47.9°	< 40°
Elbow Angle	129.2°	90° to 110°
Trunk-Thigh Angle	97.2°	100° to 110°
Hip-Knee Alignment	(-130.8°)	< (+)10°
Knee Angle	110.3°	> 90°



Reduced viewing distance from screen (Left).
Screen is too large for this viewing distance and exceeds the preferred viewing zone (Left).
Increased forward head posture (Left).
Increased elbow extension (Left).
Inadequate backward trunk extension (Left).
Hip-Knee alignment is within the normal range.
Left knee angle is within the normal range.

Left Lateral View

Parameter	Pre	Post	Reference Value
Viewing Distance	43.7	34.4	> 50 cm
Viewing Angle	(-11.1° to +)24.1°	(-10.9° to +)30.1°	0° to (+)30°
Forward Head Angle	60.8°	47.9°	< 40°
Elbow Angle	116.7°	129.2°	90° to 110°
Trunk-Thigh Angle	102.1°	97.2°	100° to 110°
Hip-Knee Alignment	(-116.9°)	(-130.8°)	< (+)10°
Knee Angle	114.3°	110.3°	> 90°



Pre-Post comparison of posture.

Automatic documentation of all observations in the report.

Report Summary

Interpretation

Reduced viewing distance from screen (Left).
Screen is too large for this viewing distance and exceeds the preferred viewing zone (Left).
Increased forward head posture (Left).
Increased elbow extension (Left).
Inadequate backward trunk extension (Left).
*Please correlate clinically.

SPORTS SPECIFIC PROTOCOLS

TENNIS SERVE ANALYSIS



Assessment of serve biomechanics

OVERVIEW

The following table gives an overview of the various biomechanical faults present during the tennis serve along with the list of the probable causes.

POSTERO LATERAL VIEW				ANTERIOR VIEW			
Knee bend	Yes	✓	No	Foot position	Yes	No	✓
Posterior Hip tilt	Yes		No	✓			
Counter hip rotation	Yes		No	✓			
Trunk hip Separation	Yes	✓	No				
Shoulder Alignment	Yes	✓	No				

OBSERVATIONS		
Fault name	Common injuries	Common causes
1. Foot position	Increased load on trunk or shoulder	Hip and/or trunk flexibility and strength
2. Posterior hip tilt	Increased load on shoulder and trunk; inability to push through increasing load on abdominals.	Hip and trunk flexion flexibility and strength
3. Counter hip	Increased load on	Hip and trunk flexion flexibility and

Identification of musculoskeletal problems behind biomechanical faults

GOLF SWING ANALYSIS



Assessment of serve biomechanics

OVERVIEW

The following table gives an overview of the various biomechanical faults present during the golf swing along with the list of the probable causes.

DOWN THE LINE / LATERAL VIEW				FACE ON / ANTERIOR VIEW			
Posture	Neutral		✓	Reverse Spine Angle	Yes	No	✓
	S Posture			Slide	Yes	✓	No
	C Posture			Sway	Yes	No	✓
Loss of Posture	Yes	No	✓	Scoping	Yes	No	✓
Early Extension	Yes	✓	No	Chicken Wing	Yes	No	✓
Over the Top	Yes	No	✓				

OBSERVATIONS		
Fault name	Common injuries	Common causes
1. Early Extension	Low Back Pain	Poor squat mechanics Decreased lead hip internal rotation Poor thoracic rotation Inability to separate torso from hips Weak gluteals and abdominals
2. Slide	Hip pain Medial knee pain Lateral ankle pain	Decreased lead hip internal rotation Difficulty separating upper body

Identification of musculoskeletal problems behind biomechanical faults

GaitON is used by 200+ clinicians globally for:

- 1 Diagnosis of posture & gait disorders
- 2 Pre-post surgical/rehabilitation comparison
- 3 Monitoring effects of Orthotics/External supporting gear
- 4 Screening camps at schools/corporates.



TOP REFERENCES

GAIT ANALYSIS



Embrace Good Health

Amrita hospital, Kochi/
Faridabad (India)

SETUP



2 Digital Cameras



Walkway



GaitON[®] Software

TOP REFERENCES

GAIT ANALYSIS



Triton Hospital, Delhi (India)

SETUP



4 Digital Cameras



Treadmill



GaitON[®] Software

REFERENCES



Adidas



Indian Navy



BSF



Jamia Milia Islamia



Hawai'i Pacific University



SRM University



Amrita Hospital



Belle Vue Clinic



Col(Dr) Rana K Chengappa
Sports Medicine & Ortho Rehab



Perfect Bounce



Delhi Foot



Sporting Ethos

GaitON[®]
by auptimo

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