

Walking

Test2 Demo2 (3/31/2026)

Summary of Key Findings

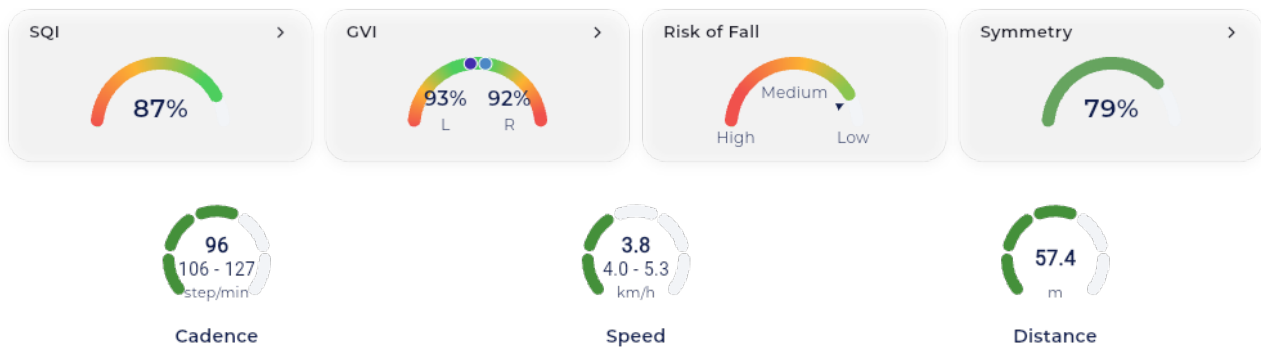
Bilateral prolonged flat foot time and stance phase dominance indicate delayed heel-off and reduced propulsion efficiency. The markedly prolonged double support time suggests compensatory stability-seeking behavior, while the reduced propulsion ratio asymmetry (left > right) implies asymmetric plantar flexor contribution. High attack angles at heel strike reflect poor shock absorption, and the mildly reduced gait symmetry further supports a bilateral mechanical inefficiency.

Clinical Implications

The gait pattern suggests a primary mechanical inefficiency in terminal stance and propulsion, with secondary adaptations (prolonged double support, reduced swing time) to maintain stability. The asymmetry in propulsion and supination at toe-off may contribute to uneven load distribution, increasing soft tissue strain risk over time. The high swing width on the left could indicate a compensatory strategy to avoid medial foot contact.

Recommendations

1. Prescribe *custom foot orthoses with a forefoot rocker design* to facilitate heel-off and improve propulsion symmetry, addressing the primary mechanical inefficiency.
2. Prescribe *gastrocnemius-soleus stretching and eccentric strengthening* to target the asymmetric propulsion deficit and reduce flat foot time.
3. Recommend *gait retraining focusing on reducing double support time* through cadence drills to improve efficiency and symmetry.



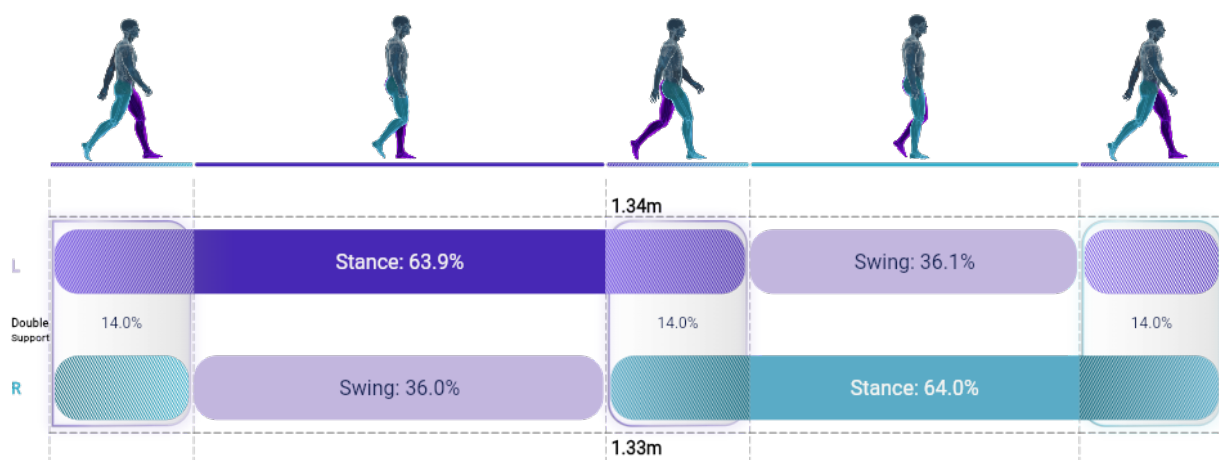
Walk profile



Duration of the stance and oscillation phases related to the total cycle time.

Normal: stance 60% and oscillation 40%

In case of an asymmetry, there is a compensation by the stronger limb (longer stance time), and potential limping.



Stride duration (ms)



Stride length (cm)



Swing time (ms)

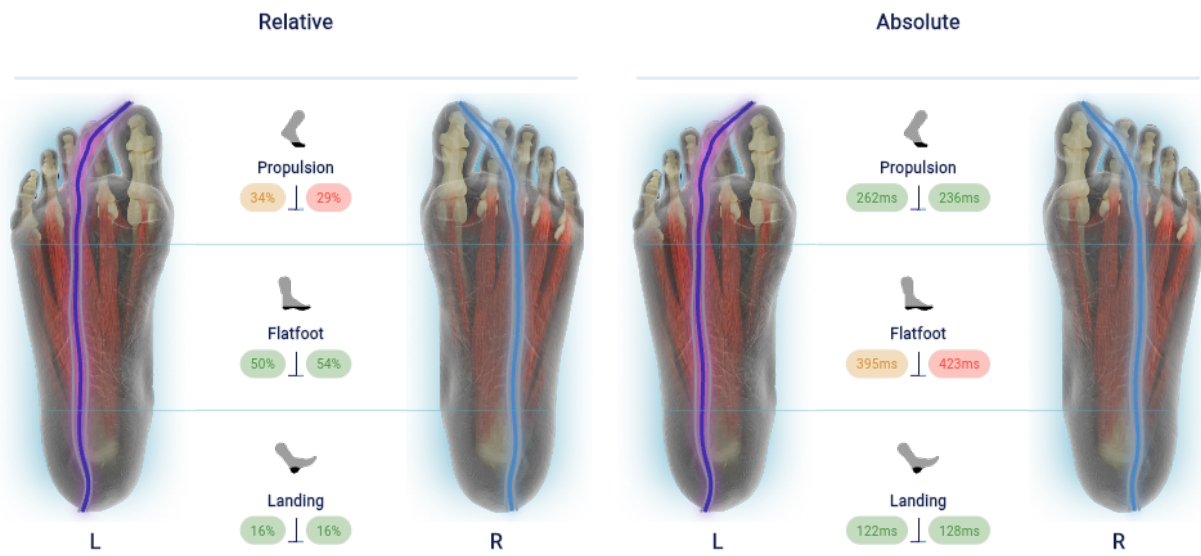


Contact Time (ms)



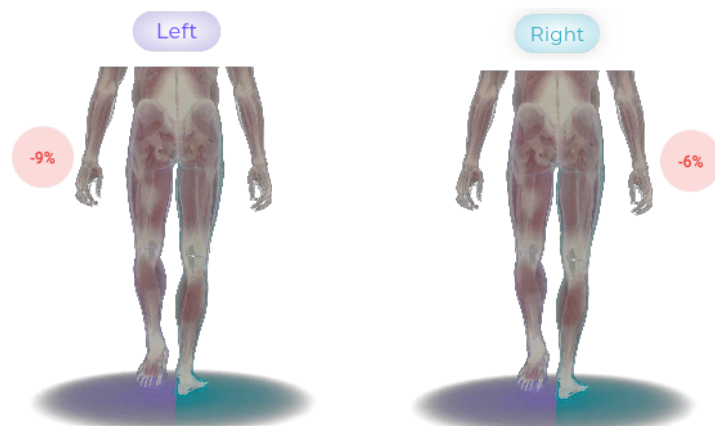
Gait line

Trajectory of the center of pressure during the 3 stance phases



Propulsion rate

Stress repartition between hips and plantar flexors during the walk

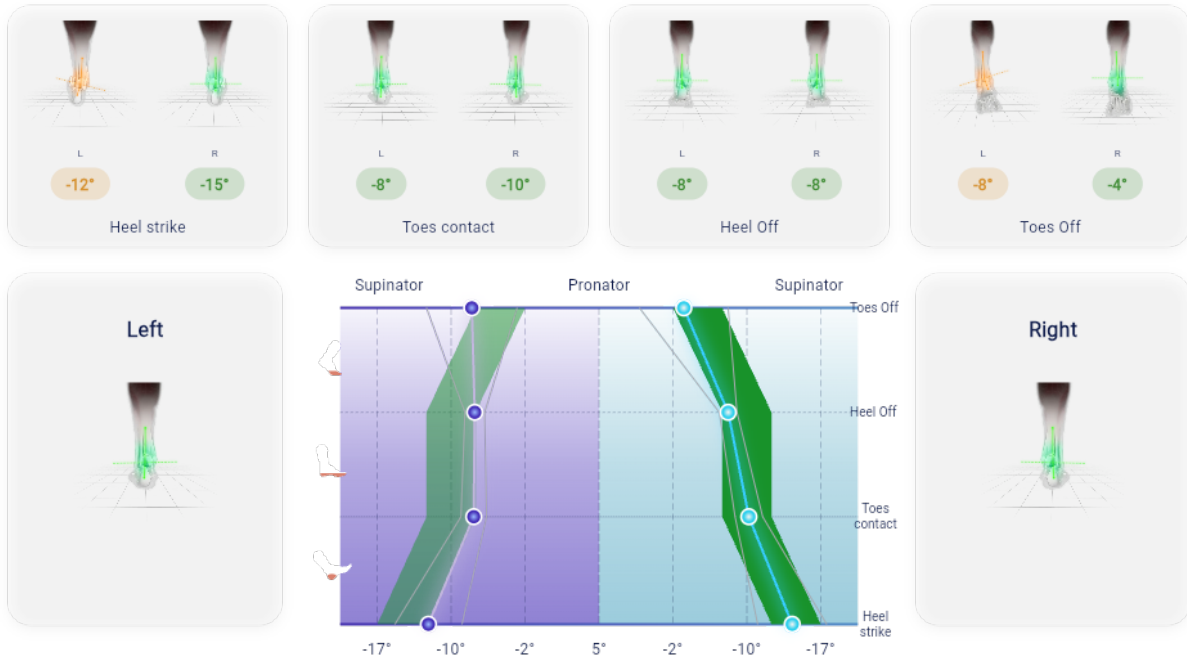


Asymmetry 2.4%

Pronation/ Supination angles

L R
Asymmetry 5.1%

Provides the angles of pronation/supination during the 4 points of the contact phases: Heelstrike, footflat, heel off and toe off. The graph shows the mean values (dark line) as well as standard deviation (thin grey line) with the statistical norm for each phase (green corridor)



Foot progression angles

L R
Asymmetry 6.8%



Steppage / Clearance



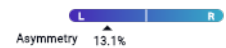
Steppage: Angle formed between the foot and the ground at heel strike.

Normal if the angle is around 20° and above : The patient strikes with the heel

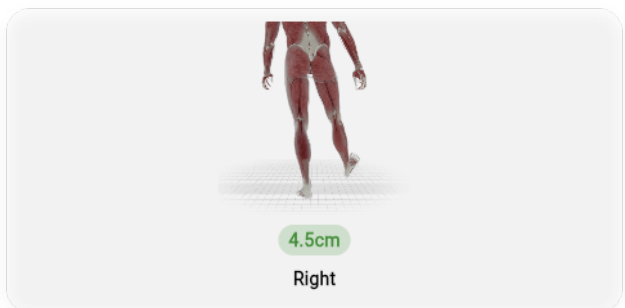
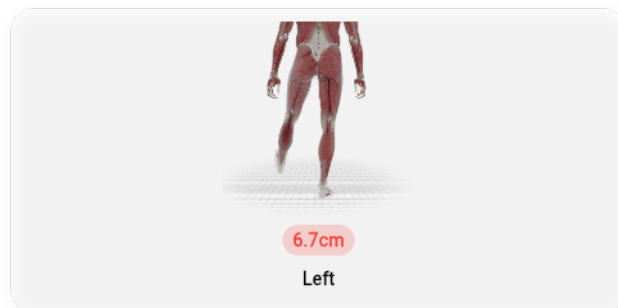
Pathological if less than 20° or equal to 0°, indicates either excess plantar flexion of the ankle or lack of knee extension.



Circumduction



This a tooltip for circumdiction



Attack angle

