



AI-Powered Gait Analysis

focus O&P



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VISION
EVERY STEP, QUANTIFIED

OPED
Digital Health Solutions



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Orthelligent® VISION: The Future of Gait Analysis

Experience AI-powered gait analysis in action.

Orthelligent® VISION enables orthotists and orthopedic shoe technicians to develop precisely fitted assistive devices more efficiently and to optimize patient care. Our precise and practical motion analyses are easy to use and provide quick measurement comparisons – without additional effort.

Why choose Orthelligent® VISION?



Simple to use: No markers or expensive camera systems required – only a tablet.



Fast analysis: Complete a full gait analysis in under 5 minutes.



Objective treatment decisions: Precise data supports the fitting for prostheses, orthoses, and orthopedic insoles.



Documentation & communication: Results can easily be shared and explained to physicians, and patients.



Quality management: Measurable outcomes help demonstrate and optimize treatment effectiveness.



Innovative positioning: Stand out as a modern, data-driven provider of patient care.

Smartphone
Version
available
may 2026

Why Use Orthelligent® VISION?

Orthelligent® VISION is suitable for:



Prosthetics



Orthopedic insoles



Orthotics



Pediatric applications

Custom Orthopedic Footwear – Selection & Outcome Documentation

Patient: Mr. Albrecht Kandler, 72

Diagnosis: Long-standing diabetes mellitus, status after healed foot ulcer

Initial situation: The patient feels insecure while walking and avoids walking due to fear of falling.

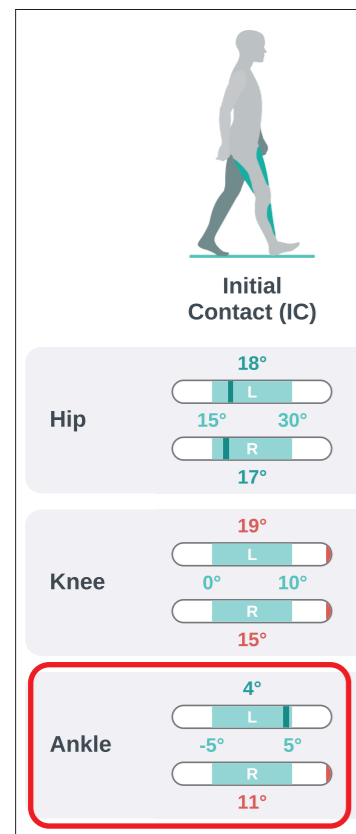
Prescription: Custom orthopedic shoes prescribed by the diabetologist.

Gait analysis before treatment

Double Support Left / Right	66 % / 65 %	10 - 40 %
Gait Variability Left / Right	18 % / 5 %	< 5 %
Step Length Left / Right	15 cm / 19 cm	55 - 80 cm
Step Time Left / Right	1.45 s / 1.29 s	0.51 - 0.65 s
Stance Time Left / Right	81 % / 84 %	55 - 65 %

The analysis shows:

- **Short step length**
- **Prolonged double support phase**
- **Minimal forefoot rollover**



- **Hardly any forefoot rollover**

Fitting: Based on the analysis, a custom-made shoe fitting is planned, featuring: a rigid ankle support for greater stability; a roll-off sole (roller); and a soft, cushioned, diabetes-friendly insole.

After treatment

Double Support Left / Right	47% / 45 %	10 - 40 %
Gait Variability Left / Right	18 % / 5 %	< 5 %
Step Length Left / Right	30 cm / 33 cm	55 - 80 cm
Step Time Left / Right	1.45 s / 1.29 s	0.51 - 0.65 s
Stance Time Left / Right	81 % / 84 %	55 - 65 %

The gait analysis shows:

- **Increased step length**
- **Reduced double support phase**

Result:

The gait pattern improved and stabilised significantly. The before-and-after comparison not only demonstrates the effectiveness of the orthopedic footwear and motivates the patient to wear the shoes consistently.

Orthopedic Insoles – Improving Patient Understanding

Patient: Andrea Meier, 48

Diagnosis: Plantar fasciitis (heel pain)

Initial situation:

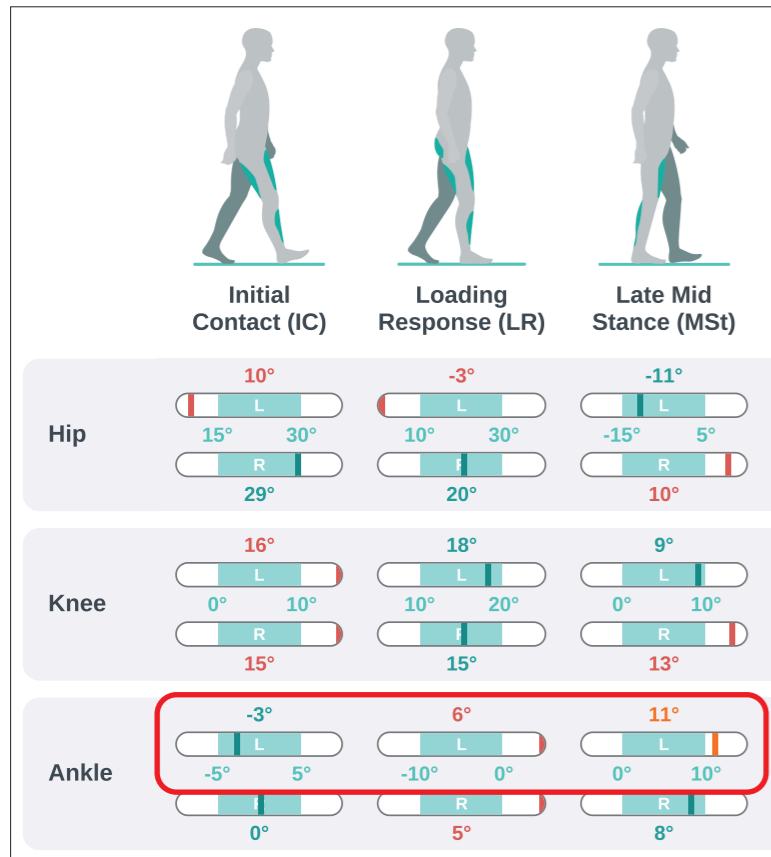
The patient wanted to understand the cause of pain during walking and how insoles could help.

Analysis findings

Step Length Left / Right	19 cm / 51 cm	55 - 80 cm
Step Time Left / Right	0.73 s / 0.68 s	0.51 - 0.65 s
Stance Time Left / Right	68 % / 69 %	55 - 65 %

The analysis shows:

- **Asymmetrical step length**



The analysis shows:

- **Reduced rollover movement**
- **Increased load on the rearfoot**

→ Keep weight off the left heel and land on the ball of the foot to avoid pain.

Fitting: Custom-made insoles with targeted heel cushioning and arch support.

Conclusion:

Gait analysis reveals issues that are difficult to detect with the naked eye. It enhances patient understanding and improves treatment adherence. Patients often recognize the value of this additional service and are more likely to return and recommend the clinic.

Patients are more likely to:

- Accept treatment recommendations
- Pay for additional services
- Return for follow-up care
- Recommend the clinic

Treatment:

Custom-made insoles with targeted heel cushioning and arch support.

Prosthetic Optimisation & Objective Validation

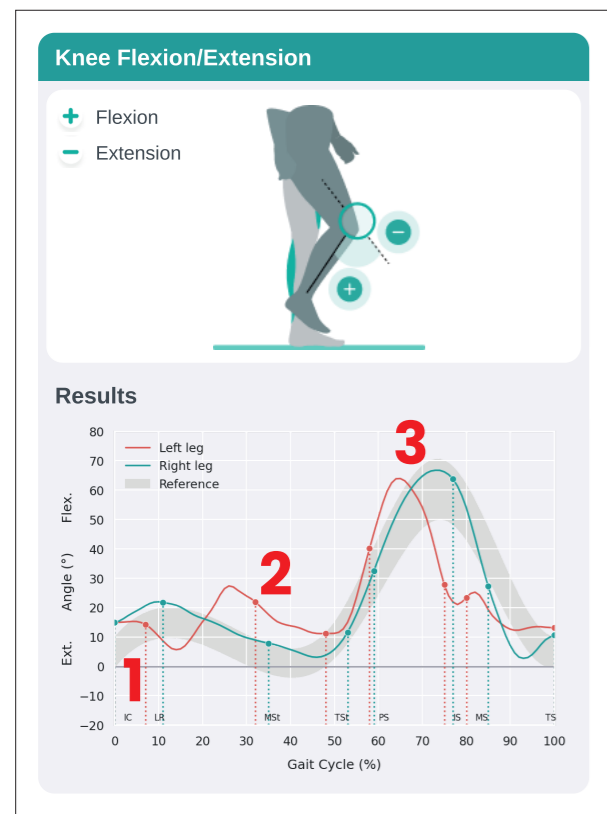
Patient: Kathrin Kraus, 54 years

Condition: Left transfemoral amputation (since childhood)

Prosthetic system: Genium X3 microprocessor knee

Referral: Referred by a physiotherapist due to suspected excessive prosthetic length.

Results of the gait analysis with Orthelligent® VISION Analysis Results



The gait analysis with Orthelligent® VISION shows:

Shock absorption: (1)
Stance-phase flexion at heel strike mimics natural joint function, indicating effective physiological shock absorption.

Stability: (2)
Controlled extension during the swing phase prevents abrupt knee extension and supports a smooth, stable gait.

Safe mobility: (3)
Adequate flexion during swing phase ensures toe clearance and reduces the risk of stumbling.

Conclusion:
Objective data confirms a well-functioning gait pattern. The prosthetic system is optimally adjusted, with no need for modification. Orthelligent® VISION enables clinicians not only to assess performance, but to objectively demonstrate optimal prosthetic alignment and function..



Measurement Capabilities

Perform gait analysis from both frontal and lateral perspectives – offering complete flexibility for clinical assessment.

Frontal

Stairs

Frontal

Sagittal

Lateral

The diagram illustrates the software's measurement capabilities from three different perspectives. On the left, there are three human silhouettes: a frontal view, a side view, and a view of a person walking on stairs. In the center, three tablet screenshots show the software interface for each perspective. The 'Stairs' screenshot shows a person on a staircase with a 97.0% gait symmetry score and a 12.0cm step height. The 'Frontal' screenshot shows a person walking on a flat surface with a 3D skeletal overlay. The 'Sagittal' screenshot shows a person walking on a flat surface with a 94.0% gait symmetry score, a 4.9km/h speed, and an 11.0% cadence. The 'Lateral' screenshot shows a person walking on a flat surface with a 94.0% gait symmetry score, a 4.9km/h speed, and an 11.0% cadence.

Fast, Simple, and Precise Gait Analysis in Three Steps

Record
Capture patient movement using a tablet

Analyse
AI evaluates gait parameters automatically

Results
Generate a clear, detailed report instantly

The diagram illustrates the three-step process of gait analysis. Step 1, 'Record', shows a tablet capturing a patient's movement. Step 2, 'Analyse', shows the software automatically evaluating gait parameters. Step 3, 'Results', shows a detailed report. The report, titled 'Report: Ganganalyse (lateral)', includes patient information (Name: Max Müller, Birthdate: 2015-04-24, Height: 180 cm, Weight: 75 kg, Sex: Male, Analysis Date: 2024-04-24, Report Date: 2024-04-24) and a table of gait parameters for the left and right legs across seven phases: Initial Contact (IC), Stoop/Loading Phase (LP), Midstance (MS), Terminal Stance (TS), Pre-swing (PS), Initial Swing (IS), Midswing (MS), and Terminal Swing (TSw). The table shows joint angles for the Hip, Knee, and Ankle at each phase. The report also includes a footer with a disclaimer and page number (Seite 3 von 4).

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Easy Peasy.

Gait analysis can be that simple.

Google Play



NEW!



O&P Report Update – an additional report page provides a focused overview of the five key phases of gait, enabling O&P professionals to quickly concentrate on what matters most in daily practice.

Report: Gait and even more characters

Gait Scan and even more characters

First name: Doe Date of Birth: 1999-01-12
 Last name: John With Some More N... Gender: Therapist: Scan Date: 2024-10-31
 Patient Nr.: thisis_some_ID_with_b... Scan Type: Gait Scan (Lateral) Print Date: 2026-04-22

Key Phases of Gait

	Initial Contact (IC)	Loading Response (LR)	Terminal Stance (TSt)	Initial Swing (IS)	Terminal Swing (TSw)
Hip <i>Extension: < 0</i> <i>Flexion: ≥ 0</i>			L Extension: -23° Normal R Extension: -22° Normal <i>Reference: -25° to -15°</i>		L Flexion: 29° Normal R Flexion: 29° Normal <i>Reference: 15° to 30°</i>
Knee <i>Extension: < 0</i> <i>Flexion: ≥ 0</i>	L Flexion: 17° Normal R Flexion: 20° Normal <i>Reference: 10° to 20°</i>		L Flexion: 9° Normal R Flexion: 2° Normal <i>Reference: 0° to 10°</i>	L Flexion: 52° Normal R Flexion: 39° Inadequate <i>Reference: 50° to 70°</i>	L Flexion: 9° Normal R Flexion: 16° Excessive <i>Reference: 0° to 10°</i>
Ankle <i>Plantarflexion: < 0</i> <i>Dorsiflexion: ≥ 0</i>	L Dorsiflexion: 8° Excessive R Dorsiflexion: 9° Excessive <i>Reference: -5° to 5°</i>		L Dorsiflexion: 9° Inadequate R Dorsiflexion: 15° Normal <i>Reference: 10° to 20°</i>		

Orthelligent[®] by OPEd ACADEMY



Orthelligent® ACADEMY is a free online training platform for clinicians who want to develop or advance their expertise in gait analysis. Developed by experts for clinical practice, the platform combines theoretical knowledge with practical application.

Are you ready to take your knowledge to the next level?

Take your gait analysis skills to the next level. Orthelligent® ACADEMY is your innovative online training platform, developed by experts for experts. Learn, analyze, and get certified – anytime at no cost.

What You'll Learn

- Gait cycle fundamentals and parameters
- Interpretation of gait analysis data
- Development of individualised treatment plans
- Monitoring and documenting outcomes



Key Features

- ✓ **Free Continuing Education**
Access all training modules anytime, at no cost.
- ✓ **Practice & Theory**
Interactive exercises combined with biomechanical foundations.
- ✓ **Certification**
Receive a personalised certificate upon completion of each module.
- ✓ **Innovative Content**
Training focused on the latest technologies, including Orthelligent® VISION.

Training Objectives

- Provide a solid understanding of gait analysis and biomechanical principles.
- Develop the ability to perform and interpret gait analyses, particularly using Orthelligent® VISION.
- Identify and analyze common gait disorders.
- Plan and implement individualized treatment approaches based on gait analysis.
- Document and monitor treatment outcomes.



Report: Analysis Name

Gait Scan (Lateral)

First name: Anne
Last name: Meier
Patient Nr.: _____

Date of Birth: 1979-12-04
Gender: Female

Therapist: _____
Scan Date: 2024-12-20

Scan Type: Gait Scan (Lateral)
Print Date: 2026-04-22

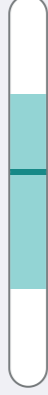
88 %



Gait Symmetry

Symmetry of the patient's movement. Based on step length.

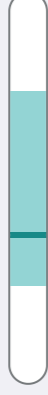
3.8 km/h



Gait Speed

Speed of the patient's movement.

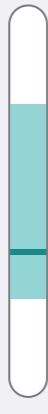
18 %



Double Support Left

The gait double support left indicates proportion of time that both feet of the patient are on the ground during the gait cycle of left leg.

17 %



Double Support Right

The gait double support right indicates proportion of time that both feet of the patient are on the ground during the gait cycle of right leg.

Notes:

Report generated for:

Oped
United States

Signature

570eee4

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Report: Analysis Name

Gait Scan (Lateral)

First name: John
Last name: Do
Patient Nr.: doctors_record_42

Date of Birth: 1942-04-02
Height: 185 cm
Gender: Other

Therapist: _____
Scan Date: 2025-04-09

Scan Type: Gait Scan (Lateral)
Print Date: 2025-04-09

Scan Details

Metric Name	Measured Value	Reference Value	Interpretation
Number of Steps	14	-	The number of steps taken by the patient.
Gait Symmetry	82 %	> 90 %	Symmetry of the patient's movement. Based on step length. Gait symmetry below reference range.
Gait Speed	2.9 km/h	2 - 5 km/h	Speed of the patient's movement. Gait speed within reference range.
Cadence	93 Steps/min	90 - 115 Steps/min	Total steps per minute during the scan. Cadence within reference range.
Double Support Left / Right	18 % / 17 %	10 - 40 %	Time both feet are on the ground. Double support within reference range with no significant asymmetries.
Gait Variability Left / Right	5 % / 16 %	< 5 %	Step-to-step length variation. Significant asymmetries between sides. Left side within and right side above reference range.
Step Length Left / Right	47 cm / 56 cm	55 - 80 cm	Average distance between foot contacts. Significant asymmetries between sides. Left side below and right side within reference range.
Step Time Left / Right	0.73 s / 0.56 s	0.51 - 0.65 s	Average time between foot contacts. Significant asymmetries between sides. Left side above and right side within reference range.
Stance Time Left / Right	56 % / 61 %	55 - 65 %	Time percentage foot is in contact with the ground. Some asymmetries between sides.

dev

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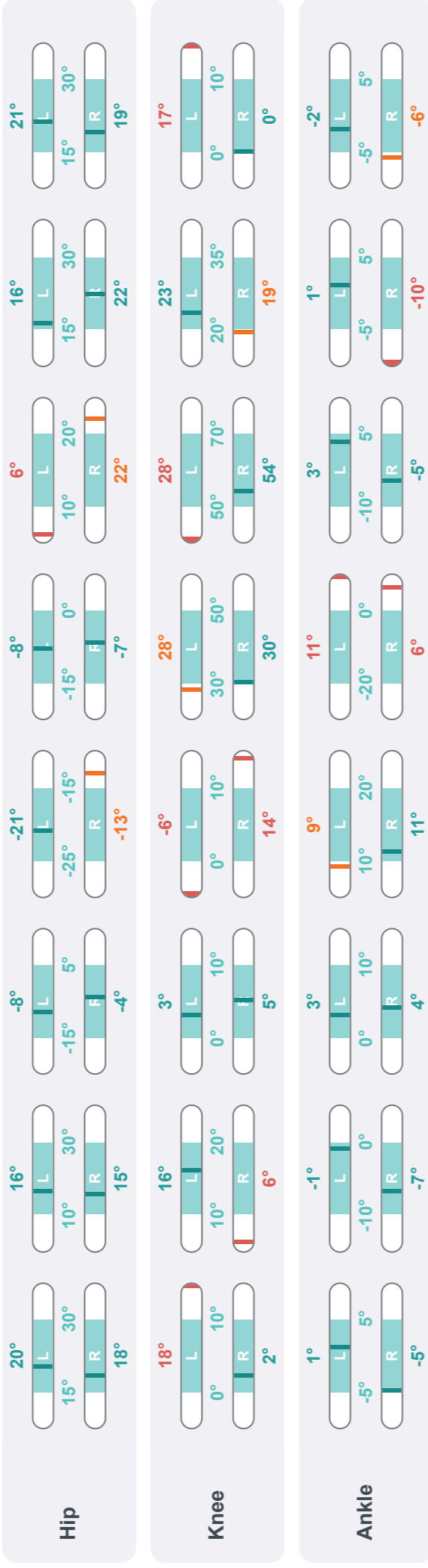
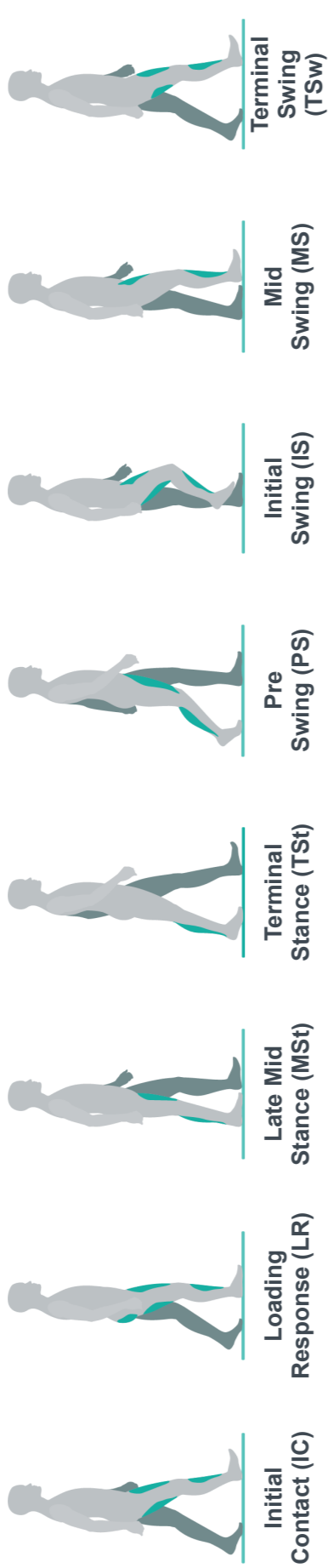
19

Report: Analysis Name

Gait Scan (Lateral)

First name: John Date of Birth: 1942-04-02 Therapist: _____ Scan Type: Gait Scan (Lateral)
 Last name: Do Height: 185 cm Scan Date: 2025-04-09 Print Date: 2025-04-09
 Patient Nr.: doctors_record_42 Gender: Other

Phases of the Gait Cycle: Left & Right Leg



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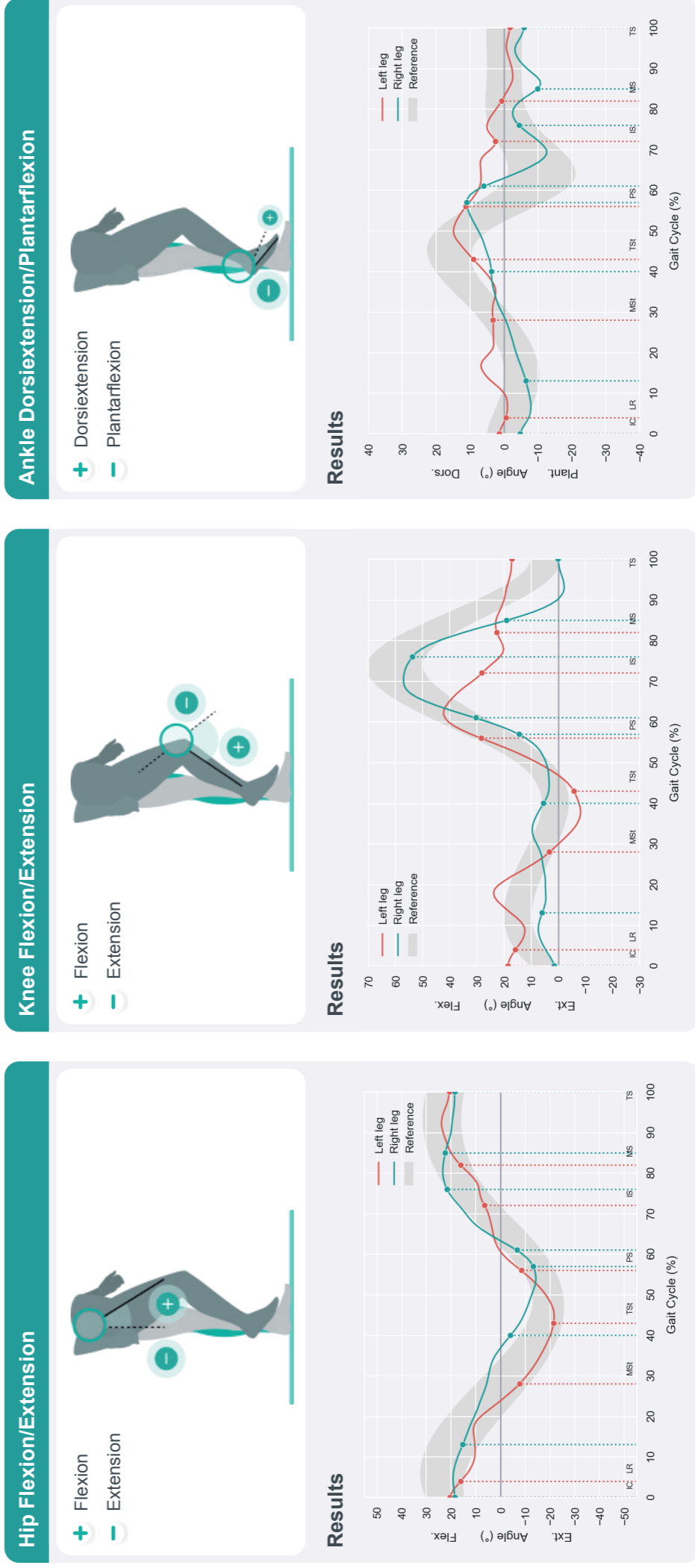
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Report: Analysis Name

Gait Scan (Lateral)

First name: John Date of Birth: 1942-04-02 Therapist: _____ Scan Type: Gait Scan (Lateral)
 Last name: Do Height: 185 cm Scan Date: 2025-04-09 Print Date: 2025-04-09
 Patient Nr.: doctors_record_42 Gender: Other

Gait Phases Plots



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Report: Analysis Name

Gait Scan (Lateral)

First name: John Date of Birth: 1942-04-02 Therapist: _____ Scan Type: Gait Scan (Lateral)
 Last name: Do Height: 185 cm Scan Date: 2025-04-09 Print Date: 2025-04-09
 Patient Nr.: doctors_record_42 Gender: Other

Scan Details

Metric Name Measured Value Reference Value Interpretation

Number of Steps	14	-	The number of steps taken by the patient.
Gait Symmetry	82 %	> 90 %	Symmetry of the patient's movement. Based on step length. Gait symmetry below reference range.
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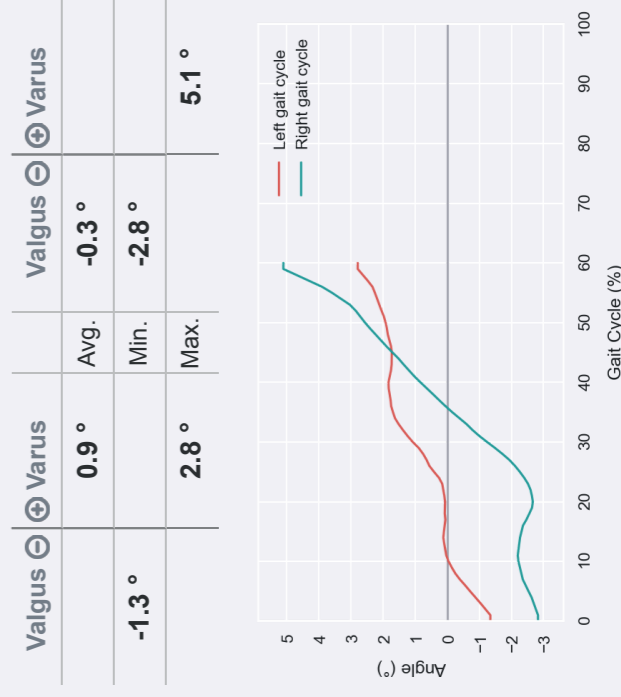
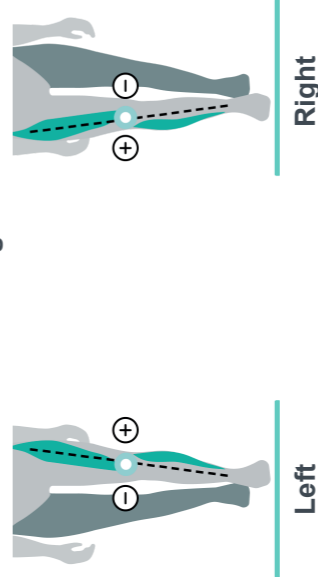
Report: Analysis Name

Gait Scan (Frontal)

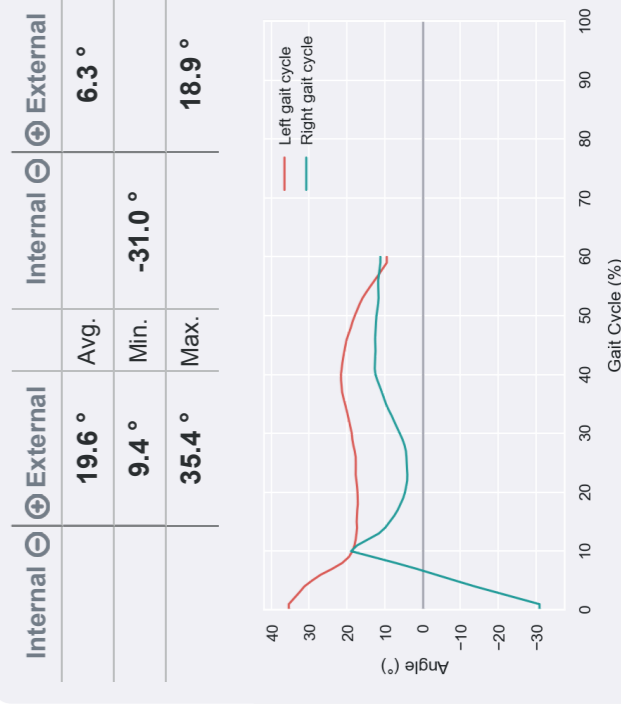
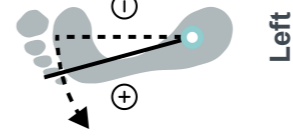
First name: John Date of Birth: 1942-04-02 Therapist: _____ Scan Type: Gait Scan (Frontal)
 Last name: Do Height: 185 cm Scan Date: 2025-04-09 Print Date: 2025-04-09
 Patient Nr.: doctors_record_42 Gender: Other

Gait Plots

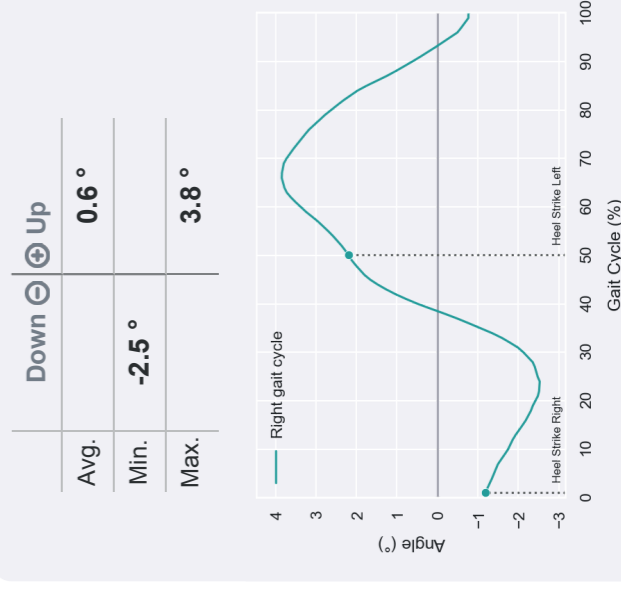
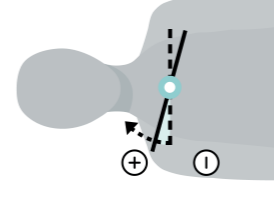
Varus/Valgus



Foot alignment



Shoulder line



dev

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Simple. Fast. Easy to understand.

With Orthelligent® VISION, you can perform a complete gait analysis in under five minutes – quickly, effortlessly, and without disrupting your workflow.

The precise results help you adjust assistive devices more effectively and achieve noticeable improvements for your patients.

This strengthens trust, demonstrates your expertise, and makes treatment outcomes clearly visible.



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