

NUSHU for Professionals

Smart Gait Analysis, Therapy & Home-Use in One Wearable System

The Clinical Challenge

Gait impairments in neurological conditions such as Parkinson's Disease, Stroke and Multiple Sclerosis are often:

Assessed only during brief clinical visits

Difficult to quantify objectively

Poorly translated into real-life mobility

The problem: Limited insight, suboptimal therapy carryover, increased fall risk

The Solution: NUSHU

NUSHU is an AI-powered wearable smart-shoe system that integrates clinical-grade gait assessment, real-time vibrotactile feedback, and home-based use support into a continuous, data-driven care platform.



Three Roles in One System

Assessment



Measure gait objectively

Better clinician decision-making

Physical Therapy



Supports clinicians to personalize therapy

Improves motor function and better outcomes

Home-Use



Supports daily walking at home

Promotes independence and confidence

Clinical Value

For Neurologists:



- Capture gait changes over time
- Review gait data alongside treatment changes, including medication, DBS, shunt management, and injections
- Detect subtle mobility changes

For Physical Therapists:



- Continuous, objective gait and balance measurement & assessment
- Provides vibration cueing to support gait training, including during freezing of gait
- Monitor patient progress during and between visits
- Support evidence-based, personalized therapy

NUSHU is not a standalone diagnostic tool. It requires clinician interpretation.

Intended Use Cases for Individuals with Gait Impairments:



Parkinson's Disease



Post-stroke



Multiple Sclerosis

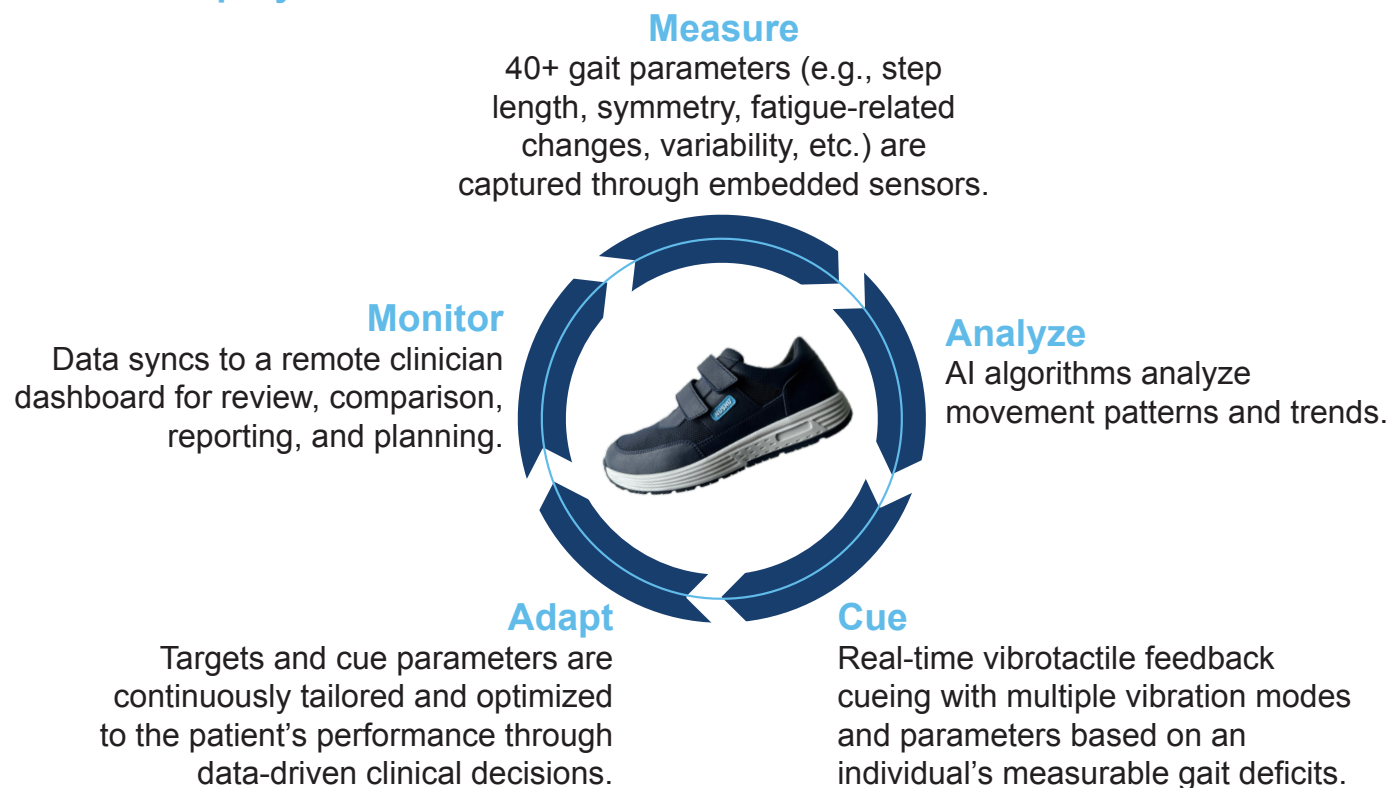


Fall Risk

Note: under clinical supervision

How NUSHU Works

Closed-Loop System:



System Architecture:

Smart Shoes (Hardware) 	Mobile App 	Cloud + Clinician Dashboard 
• Embedded sensors and processors • Wireless communication • Real-time event detection • Vibrotactile actuators	• Activity control & recording • Data upload & visualization • Device management	• Data storage • Advanced analytics • Gait monitoring across time

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Why It Matters:

- Moves beyond snapshot assessments to longitudinal measurement
- Enables continuous rehabilitation with personalized, real-time cues
- Enhances patient engagement and adherence
- Informs data-driven clinical decisions with objective, quantitative data
- Bridges the gap between clinic and real life for independent, everyday use

From assessment to action – every step, every day.

See NUSHU in Action

- Request a clinical demo
- Explore how to become a NUSHU Certified Partner
- Evaluate integration into your workflow



**Contact
Magnes**

Website: www.magnes.ch

Email: info@magnes.ch