



GATOR · FUNCTIONAL KNEE ASSESSMENT

Unlock your knee's true potential

Objective, clinical-grade insight into how your knee
moves, bears load and recovers — tailored to your journey.

 GATOR PRIME

HSA Class A

ISO 13485



Scan to
book your
assessment

Guessing is not a strategy.

Whether you are striving for a new personal best, navigating the road to recovery, or maintaining your daily independence, you deserve answers grounded in data.

The GATOR FLEX Functional Knee Assessment uses advanced biomechanical tracking to provide objective, clinical-grade insights into your knee health. Discover how our precise metrics are tailored to your specific journey.

FOUR PATHWAYS, ONE ASSESSMENT

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Cleared, certified and clinically grounded

Wearable sensors strap comfortably to the thighs. Onboard displays capture real-time biomechanical data directly at the point of care.



REGULATORY

HSA Class A medical device

Cleared by Singapore's Health Sciences Authority and approved for clinical use.

QUALITY

ISO 13485 certified

Design, production and servicing governed by a certified quality management system.

ANALYSIS

Proprietary PRIME engine

Exclusive gait-analysis engine and PRIME scoring, with patent filings on record.

PRIVACY

PDPA compliant

Patient data handled in line with Singapore's PDPA. Your reports remain your property.

Optimise performance and return to play

Do not let uncertainty keep you off the field. Our assessment provides the data-driven confidence you need to push your limits safely.

0–100%

READINESS
SCORE

Quantify athletic readiness

The IKDC 2000 Sport Activity evaluation provides a clear, objective percentage score that tracks your capacity to return to high-level sports.

≤ 5%

SYMMETRY
INDEX

Perfect your biomechanics

Peak performance requires balance. The Walking Symmetry Index measures your mechanical efficiency, verifying whether you meet the threshold of 5% and below for a truly balanced gait.

55°

SWING ROM

Track dynamic range

Ensure your joints move optimally during fast-paced activity by measuring Swing Flexion/Extension Range of Motion against the 55° baseline for normal, healthy knee flexion.



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Track your healing journey

Rehabilitation is a step-by-step process. We provide the structural reassurance and targeted diagnostics needed to guide your recovery effectively.

102°

ACTIVE FLEXION

Identify hidden limitations

The Standing Active Flexion Test reveals functional deficits, measuring whether your range of motion has reached the 102° baseline for normal knee function.

≤ 5°

STANCE ROM
DIFF.

Rule out secondary compensations

Peak Absolute ROM Difference in Stance confirms your mechanics remain balanced, ruling out secondary issues such as mild leg-length discrepancy when the difference stays at 5° and below.

3

IMPAIRMENT
LEVELS

Map your progress

Set realistic rehabilitation timelines with the IKDC 2000 overall functional score, which categorises your current impairment level.

Severe

Moderate

Functional

Maintain your independence

We focus on the functional benchmarks that matter most for daily living and safety.

Your mobility is your independence.

5 reps

FAST CHAIR STAND

Measure daily functional strength

A tangible benchmark for lower-limb strength. Your completion time is compared against population averages for your age and gender.

> 1.0 m/s

FAST WALK SPEED

Ensure community safety

Navigate your neighbourhood with confidence. The Fast Walk Test verifies your gait speed exceeds the 1.0 m/s LTA guideline for crossing at traffic lights safely.

Find clarity and validation

We provide the tools to quantify your symptoms and verify your foundational joint mechanics.

Your discomfort is not just in your head. It is measurable.

/ 37

IKDC SYMPTOMS

Validate your experience

Pain, stiffness and joint locking are quantified and tracked with the IKDC Symptoms evaluation, scored out of a maximum of 37 points.

15°

STANCE ROM

Reassure fundamental mechanics

Despite the pain you may feel, the Stance Flexion/Extension ROM assessment verifies whether your weight-bearing mechanics meet the 15° threshold for normal knee flexion.

Published evidence. Active trials. Open to collaboration.

● PUBLICATIONS

- 2026 **Prediction of pivot shift grade using in-vivo ultrasound bone tracking during sit-stand-sit: a machine learning feasibility study**
Dutta J, Tay I, Lai KW, Lim JTE, Chia ZY
Preprint · submitted for peer review DOI 10.64898/2026.05.10.26352712
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- 2026 **Multimodal wearable system for objective assessment of dynamic rotational knee biomechanics following ACL injury and reconstruction: a clinical validation study using ensemble deep learning**
Dutta J, Tan DYY, Lai KW, Zhu J, Chia ZY
Preprint · submitted for peer review DOI 10.64898/2026.05.08.26352706
-
- 2026 **Validation of a novel knee harness inertial-cum-ultrasound wearable device as a quantitative measure of knee function**
Ow ZGW, Zhang EJX, Wong KL
J. Clin. Orthop. Trauma DOI 10.1016/j.jcot.2026.103338
-
- 2025 **Quantification of 3D kinematic measurements for knee flexion and tibial rotation using an IMU-based sensor and ultrasound imaging system: a cadaveric study**
Razak HRBA, Chua N, Lai KW
Sensors DOI 10.3390/s25134211
-

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AT A GLANCE

Benchmarks we measure

Walking Symmetry Index	≤ 5%
Swing flexion/extension ROM	55°
Standing active flexion	102°
Peak absolute ROM difference in stance	≤ 5°
Stance flexion/extension ROM	15°
Fast walk gait speed	> 1.0 m/s
5 rep fast chair stand	age / gender norm
IKDC 2000 sport activity	%
IKDC 2000 overall function	3 levels
IKDC symptoms	/ 37



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