

CUSTOMER STORY · MEDICAL DEVICES · SURGICAL RECOVERY

Surgery planned to the millimeter. Recovery measured to match.

How Kinomatic used OneStep to prove a 40% faster recovery after joint replacement — and kept measuring, for four years and 2,500 patients.

40%

faster recovery, shown with objective gait data

2,500

Kinomatic patients on OneStep in four years

4x

a week — how often patients use the app

Precision before surgery needed proof after it

ORGANIZATION

Kinomatic

WHAT THEY DO

VR and AI pre-surgical planning for total knee and hip replacement

PATIENTS ON ONESTEP

~2,500 (Aug 2021 – Jun 2025)

NEW PATIENTS PER MONTH

100+ in 2025

WORKING WITH ONESTEP SINCE

2021

USE CASES

Post-op recovery, home exercise, outcomes validation

MEET KINOMATIC

Kinomatic was founded to optimize surgical outcomes. From a high-resolution CT scan of a patient's lower body, its engineers build an exact 3D bone model and use it to determine the best possible implant placement before the surgeon ever operates. It is a premium, white-glove approach to joint replacement, built around removing guesswork.

THE CHALLENGE

Total knee and hip replacement leave many patients anxious about what recovery will look like. Patients want reassurance; surgeons want reliable data. Kinomatic believed its planning produced better recoveries — but a belief is not evidence.

The company needed a way to record objective gait data, in real life and at scale, and show transparently that its patients recover faster than patients without the Kinomatic advantage.

WHY KINOMATIC CHOSE ONESTEP

1

Real-world gait, no wearables

Traditional gait measurement needs a lab or a sensor. OneStep measures from the smartphone a patient already carries — anytime, anywhere.

2

Continuous, automatic analysis

Gait and mobility are captured in any environment and translated into clear, actionable insights surgeons can act on.

3

Comparison and fit

The industry's largest gait database lets Kinomatic compare outcomes against broader populations, and OneStep integrated into Kinomatic's existing systems.

The results

40%

faster recovery for Kinomatic patients after knee and hip replacement

4x/wk

patients actively use the OneStep app during rehabilitation

2,500

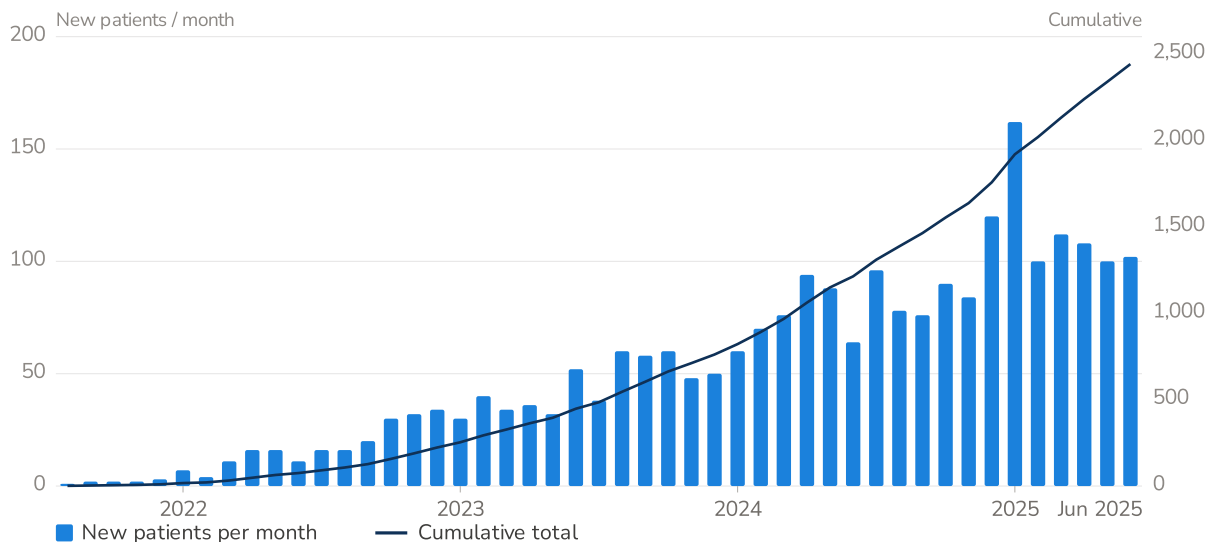
patients measured in four years, from the first cohort in 2021

After OneStep was deployed across Kinomatic's patient population in summer 2022, the gait data did what the company hoped: walk speed, cadence, stride length, step-length asymmetry and double support were tracked week by week after surgery, for both knee and hip replacement, and compared against patients recovering without Kinomatic planning. The curves separated. Kinomatic patients recover 40% faster, and the claim now rests on objective measurement rather than on a promise.

Patients see the same data. The app's Walk Score and activity feedback keep them engaged — Kinomatic patients use it about four times a week — and surgeons can watch progress and intervene when a trajectory drifts off the expected band.

PATIENT GROWTH

New Kinomatic patients on OneStep per month, Aug 2021 – Jun 2025



THE FIRST 126 PATIENTS — THE 2022 PILOT

3–4 days/wk

exercising in the app

3–4 walks/wk

actively recorded

8.5 / 10

satisfaction with the overall experience

28%

reduction in reported pain

16%

improvement in reported sleep

100%

would recommend OneStep

Patient-reported, from a daily in-app check-in customized for Kinomatic and a monthly Lower Extremity Functional Scale (LEFS).

What one recovery looked like

A Kinomatic patient in her late seventies had a right total knee replacement and was onboarded to OneStep a few days before surgery. Ten weeks later she was discharged from remote care. Every number below was measured by the phone in her pocket. Identifying details have been removed.

MEASURE	AFTER SURGERY	AT DISCHARGE
Step rate	49 steps/min	101 steps/min
Step length (right)	14.6 in	23.2 in
Stride length	27.4 in	50.1 in
Sit to stand	3	8
OneStep Walk Score	60	80

“OneStep integrates the empathy and professionalism of experienced physical therapists with the latest in digital health technology, ensuring that our patients receive the best care and experience possible.”

Shaun Lea · CEO, Kinomatic

She also reported falling pain levels and improving sleep quality in her daily check-ins over the same ten weeks.

2×

step rate — from 49 to 101 steps per minute

+83%

stride length, measured on real walks rather than in a clinic

+20

Walk Score points, from 60 to 80, in ten weeks

HOW THE RECOVERY WAS MEASURED

Walks, from the pocket

Step rate, step and stride length and the Walk Score, recorded on ordinary walks with the phone in a pocket — several times a week, no wearable.

Function and symptoms

Sit-to-stand tests in the app, a daily check-in on pain and sleep customized for Kinomatic, and the LEFS outcome measure each month.

A therapist on the other end

A licensed physical therapist followed her remotely with a home exercise program, chat and video — and discharged her when the data said so.

Measured continuously rather than at two clinic visits — and Kinomatic has this for every patient.

A white-labelled Kinomatic portal

Four years in, OneStep provides Kinomatic with a white-labelled portal under its own brand. Surgeons see every patient's Walk Score against the expected recovery band for their procedure and week, sort the roster by who needs attention, track knee extension, and copy objective documentation straight into the EMR.

Orthopedic Surgery · Hip & Knee

Patients

+ Add patient

All patients 14

Needs attention 6

Recovering well 7

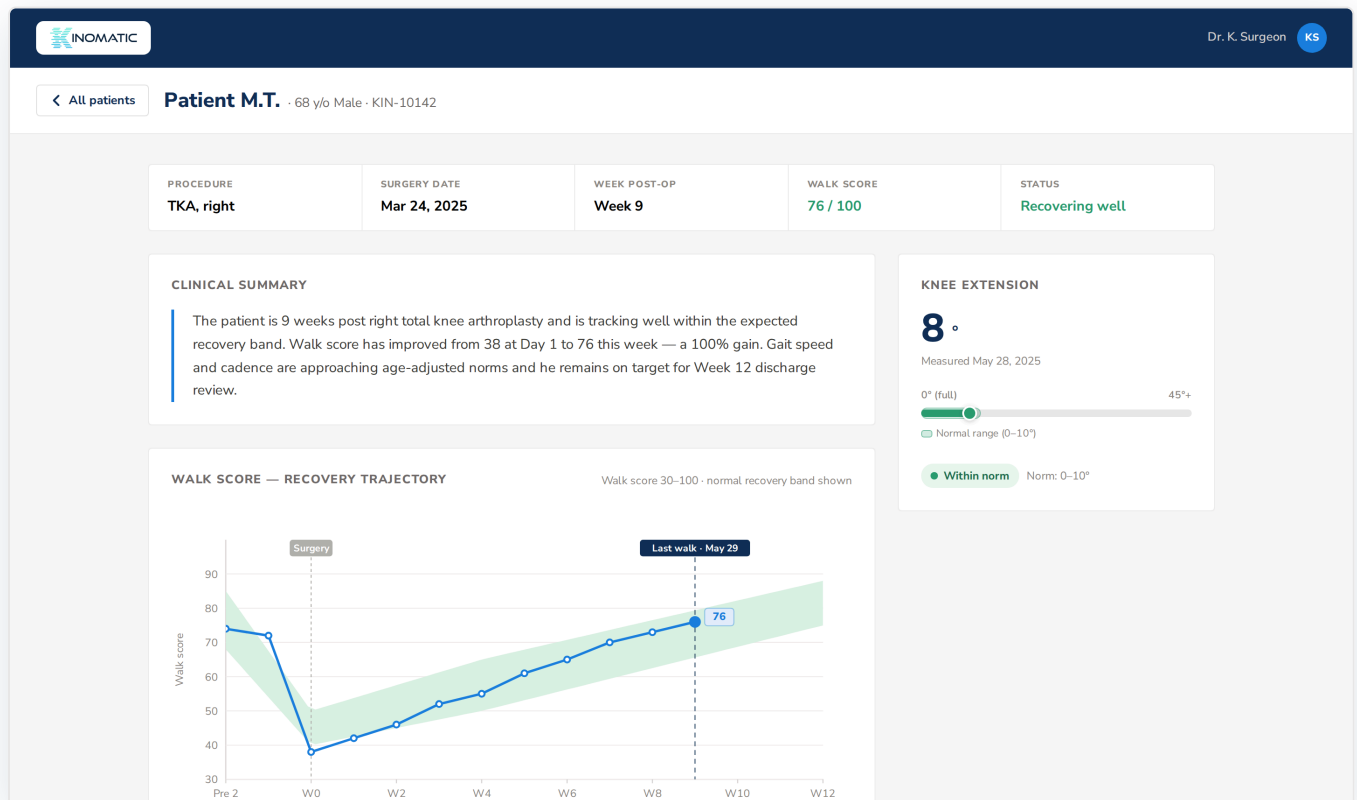
Awaiting data 1

Q

Search by name, EMR ID, or procedure

PATIENT	PROCEDURE	SURGERY DATE	WEEK POST-OP	WALK SCORE	EXTENSION	STATUS
MT Patient M.T. KIN-10142 · 68 y/o Male	TKA, right	Mar 24, 2025	Week 9	76 May 29, 2025	8° May 28, 2025	Recovering well
LC Patient L.C. KIN-08731 · 72 y/o Female	THA, left	May 9, 2025	Week 3	31 May 30, 2025	No data	Needs attention
RK Patient R.K. KIN-09304 · 64 y/o Male	TKA, bilateral	Mar 10, 2025	Week 11	83 May 28, 2025	5° May 27, 2025	Recovering well
PW Patient P.W. KIN-11205 · 75 y/o Female	THA, right	Apr 18, 2025	Week 6	52 May 29, 2025	18° May 25, 2025	Needs attention

Patient roster — every post-op patient, their week, Walk Score and status, with the ones that need attention surfaced first.



Patient view — recovery trajectory against the normal band, knee extension, and objective documentation ready for the EMR. Shown with placeholder patient data.

“Kinomatic is committed to delivering the best possible outcomes for our patients, and OneStep has been a game-changer in making that vision a reality. Their ability to capture real-world gait data with accuracy and ease has given us the proof we need to demonstrate the high efficacy of our approach.”

Brian Wyss · Chief Operating Officer, Kinomatic

LOOKING AHEAD

For patients undergoing knee or hip replacement, every step matters. Kinomatic's planning and OneStep's real-time gait analysis now run as one workflow — from the first surgical consult through the whole rehabilitation journey — and the partnership keeps adding features built around what Kinomatic's surgeons need next.

Ready to learn how OneStep can help your organization?

Email us at info@onestep.co