A new approach to engaging patients in total knee rehab
Addressing the Knee Osteoarthritis Journey

The CyMedica muscle activation and patient engagement solutions are designed to support the complete care path for knee osteoarthritis, from early onset and diagnosis to surgical interventions and post-operative rehabilitation.

The Clinical Challenges of Muscle Weakness

Muscle weakness is considered one of the most prevalent underlying clinical conditions associated with knee osteoarthritis and the rehabilitation challenges facing patients recovering from knee procedures. Studies have shown:

- **Patients can lose over 60% of their quadriceps strength** after knee surgery, and clinic physical therapy programs alone may not always be successful in restoring critical muscle activation strength.¹

- In patients with pre-operative knee osteoarthritis, upper leg muscle strength is reported to be approximately **20–40% lower** compared with healthy age-matched controls.² Muscle weakness in knee OA is strongly related to the patient-reported outcomes pain, activity limitations and falls, and has been linked to symptomatic progression of the disease.

Patient Engagement from Home

CyMedica partners with healthcare providers to engage patients in strengthening their muscles from home to minimize pre- and post-surgical atrophy.

- Supporting research has shown that consistent NMES therapy and patient engagement post-knee surgery may help patients attain and exceed their preoperative activity levels. The use of NMES in addition to progressive strengthening exercises has shown promising results and should be provided to attenuate the early loss of quadriceps strength after TKA.³

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**60%**

Studies show that post-TKA patients can lose over 60% of quadriceps strength.

**20% to 40% LOWER**

Research indicates that patients with OA can experience 20-40% loss of quadriceps strength.
Introducing e-vive™ with CyMotion Technology

e-vive™ is the ONLY muscle activation therapy and patient engagement solution for knee conditions. An app-controlled and data-driven device, e-vive™ is designed to empower at-home pre-hab to rehab muscle strengthening for total knee replacement patients. It uses advanced neuromuscular electrical stimulation (NMES) to help patients strengthen their muscles, conforming to the comfort level of the patient to encourage them to use NMES as prescribed.

CyMotion™ Technology

Our patented CyMotion™ Technology uses a closed-loop feedback system to constantly monitor and adjust the power delivered based on the patient’s physiology and dynamic bioimpedence. The result is delivery of a more comfortable, targeted muscle activation.

The e-vive™ App gives patients complete control over their NMES therapy for simplified operation on virtually any smart device. Key data points are collected and sent to the cloud where providers can track patients' rehabilitation progress and engage with them remotely.

The CyMotion™ NMES Controller

Controller uses our proprietary CyMotion™ Technology to monitor and control the power delivered to the muscle for maximum comfort and effectiveness.

The e-vive™ Conductive Garment

With built-in sensor technology, transmits range of motion data and steps, while precisely positioning the electrodes in place on the quadriceps.

Image: The e-vive™ Conductive Garment with the app interface and control panel.
Empowering patients to find their strength

The e-vive™ system has been optimized to help clinicians encourage patients to be proactive in their rehabilitation. Key data points such as range of motion, activity level, pain level, and more, are collected and wirelessly sent to our provider portal. Surgeons and physical therapists have real-time access to their patients’ information so they can monitor and motivate patients between visits.

CyMedica Orthopedics® is focused on delivering advanced muscle activation solutions for at-home therapy—because more engaged patients means faster recover times, lower chances of readmission, and improved clinical outcomes.

That’s true quality-based care. And that’s our mission here at CyMedica.
Experience the new standard of care for muscle strengthening:


To learn more, visit www.cymedicaortho.com or call 844-296-2014