

QB1 SYSTEM COMPONENTS

Conductive Garment

- Simple wrap
- Accurately positions the electrodes on your leg to ensure that only your atrophied muscles are stimulated



NMES Controller

- Cutting-edge technology delivers multiple short therapy sessions anywhere
- Constantly monitors and adjusts stimulation to optimally deliver comfortable therapy at a lower power, *reducing or eliminating pain and discomfort.*



USING THE QB1 AT HOME

The QB1 system puts access to faster recovery in your hands with just two functions to consider: the garment for stability and the NMES stimulation for muscle strengthening.

Conductive Garment

When you're ready for a stimulation session, position the soft conductive garment under your leg. Remove the electrode covers and tighten the wrap ends for a secure fit.

NMES System

NMES is designed to be used three-times a day for 20-minute sessions. It's recommended that you do this six-days per week to achieve best results.



While the electrical stimulation may feel unusual, it should not be uncomfortable or hurt. Your quad muscles will tense under stimulation for several seconds, and then relax before another stimulation round begins.

Each NMES session will follow a few simple steps:

- (1) Remove electrode covers.
- (2) Plug the controller into the garment connector.
- (3) Select the treatment type on the screen as directed by your doctor.
- (4) Dial in the intensity level you'd like for both the knee and thigh areas for a strong but comfortable stimulation.
- (5) Select "Start" to begin the 20-minute session.
- (6) When you've finished your treatment session, disconnect and power off the controller. Replace the electrode covers.

During your session, you can enjoy passive, seated activities like reading a book, watching TV, or working, while the QB1 system performs your rehabilitation for you!

Caution: Federal law restricts this device to sale by or on the order of a practitioner licensed by the law of the state in which he/she practices to use or order the use of the device.

CYMEDICA QB1™ ADVANCED, AT-HOME REHABILITATION FOR EVERY PATIENT

Quadriceps muscle loss is a silent but consistent complication after total knee replacement surgery, but it CAN be minimized and reversed with *PROVEN* NMES technology delivered at home.

Please see QB1 User's Manual for a complete list of device instructions for use, indications, contraindications, warnings, precautions and adverse effects for the QB1 system.

1. Stevens-Lapsley et al. (2012) Physical Therapy. 92(2): 210-226.
2. Mizner et al. (2005). JBJS. 87(5): 1047-1053.
3. Stevens-Lapsley et al. (2012). Physical Therapy. 92(2): 1187-1196.

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Ask your doctor
about the CyMedica
QB1 rehabilitation
system today!



CYMEDICA
orthopedics

**TOTAL KNEE REPLACEMENT
NEUROMUSCULAR STIMULATION SYSTEM**

**REHAB
REDEFINED**





YOUR KNEE HAS LIMITED YOU ENOUGH

Severe knee arthritis causes tremendous pain and limits your knee's function, interfering with your enjoyment of activities you once took for granted. With total knee replacement, you've taken the first step to reduce pain, restore your knee's range of motion, and return you to your day-to-day activities.

Before you can fully enjoy the benefits of your new knee, you'll go through a period of adjustment and rehabilitation.

Unfortunately, there's one often overlooked obstacle standing in your way - a weakness in your thigh muscles called *quadriceps (quad) atrophy*.

MUSCLE ATROPHY MAY THREATEN YOUR RECOVERY



Quadriceps atrophy is the weakening of the thigh muscles, lasting many months and years after surgery.¹

Causes

- Disuse before and after surgery
- Fluid buildup in joint from swelling
- Surgical access to knee capsule

Reasons

- Each muscle is composed of many individual "motor units", which act together to create a contraction force in your muscle.
- Normally, your brain sends an electrical signal to your muscles to fire, varying the number of "motor units" receiving the signal and its intensity to vary the strength of the contraction.
- With quadriceps atrophy, your body can't properly communicate and recruit all of the "motor units", greatly diminishing the amount of strength each muscle produces.²

Impact

While your knee may now move normally with a knee replacement, quad weakness can continue to greatly impair your ability to walk or climb stairs even one year or more after surgery.¹

In turn, this can limit your everyday activities and leave you prone to further injury from tripping and falling.^{1,3}

Traditional Treatment

Quadriceps weakness is often treated in a physical therapist's office with strength exercises and electrical stimulation.

Neuro Muscular Electrical Stimulation (NMES) technology has been shown to be highly effective at exciting atrophied muscles, reawakening those silent motor units, reducing muscle loss and even shortening the rehabilitation process.

Patients undergoing frequent NMES often experience improved functionality and satisfaction with their recovery.^{1,3}

However, the impact of traditional NMES is limited for many patients. NMES sessions are typically administered only during physical therapy visits and rely upon early generation technology that sends electrical signals throughout the leg at higher energies, frequently causing discomfort and pain.³

CYMEDICA QB1: NEXT GENERATION REHAB

The QB1 technology was developed by several of the greatest medical and scientific minds in the country to revolutionize the treatment of quad atrophy after knee replacement.

The QB1 system's innovative approach delivers targeted NMES therapy more comfortably and at a lower energy than other traditional devices by listening and responding to your body during a treatment session. By integrating this novel technology into a simple and comfortable garment, the QB1 allows for shorter, more frequent treatment sessions at home or anywhere outside of a physical therapist's office.

The result? You may improve your quad muscle strength markedly faster than with strength training alone and reduce your overall rehabilitation time – getting you *back to your life* faster.¹

