

## ABOUT NMES:

Neuromuscular electrical stimulation (NMES) is the application of electrical stimuli to a group of muscles, most often for the purpose of muscle strengthening. NMES is achieved by passing an electrical impulse from a device through electrodes placed on the skin over the targeted muscle or muscles.

## TAKE CONTROL OF YOUR REHAB AND OSTEOARTHRITIS

A big part of what makes recovery from knee surgery or managing osteoarthritis difficult is the loss of quadriceps strength. In fact, most patients lose over 60% of quad strength after knee surgery and over 56% due to osteoarthritis, which can prevent you from getting back to a normal, active life.

## UNDERSTANDING QUADRICEPS WEAKNESS

Quadriceps atrophy - or the weakening of your thigh muscles - is a common but overlooked result of knee surgery and osteoarthritis. As your muscle atrophies due to reduced use from pain and stiffness caused by osteoarthritis, or the inability to use your knee after surgery, the communication between your nerves and muscles becomes hindered. This limits your ability to recruit your quadriceps and weakens the signal between your nerves and muscles.

Our neuromuscular electrical stimulation (NMES) solutions are designed to help speed up the muscle strengthening process, with an emphasis on comfort and convenience - so you can work on strengthening your quadriceps from home, work, or just about anywhere else.

## RECOMMENDED NMES THERAPY



Please consult with your healthcare provider for your specific therapy dose.



# CyMedica QB1™

## Muscle Strengthening System

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GARMENT AND BRACE  
QUICK REFERENCE GUIDE

To view a detailed instructional video visit:  
[www.cymedicaortho.com/products/support/qb1/](http://www.cymedicaortho.com/products/support/qb1/)

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.

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

## Get Back to an Active Lifestyle



QB-0090-015, Rev. C

# INSTRUCTIONS FOR USE:

## At-Home Muscle Strengthening Therapy

The CyMedica QB1™ system is designed to provide advanced muscle stimulation therapy at home. The QB1 strengthens the quadriceps muscles following surgical procedures and may also be used to treat non-surgical knee conditions such as osteoarthritis.

### STEP 1 Fit the Conductive Garment and Brace

- ✔ Sit on the floor with the open conductive garment under your affected leg. Align the pre-positioned electrodes with your targeted quadriceps muscles. **Remove the electrode covers.**



- ✔ Wrap the garment (with attached brace) around the top of your thigh and loosely secure it. Follow the same procedure with the calf panels below the knee.
- ✔ Bend your knee and ensure that the brace hinges are properly aligned. Adjust accordingly and tighten the conductive garment straps into their final position. Verify that the brace's bars are located on the sides of your leg.



### STEP 2 Secure the Brace



- ✔ Attach and wrap all strap connections on the outside of the brace. Make sure all straps are tightly secured to prevent slippage.

#### If indicated by your healthcare provider:

Fully extend your leg and engage slide locks on either side of the brace to immobilize in full extension. - OR - Set range-of-motion limits using hinge dial on either side of the brace.

For more detailed instructions about securing the brace, visit: [www.cymedicaortho.com/products/support/qb1/](http://www.cymedicaortho.com/products/support/qb1/)

### STEP 3 Connect and Start NMES

- ✔ Attach the end of the controller cord to the conductive garment socket.



- ✔ Power on the controller using the ON/OFF switch located on the top left side of the device. The screen will display 2 options:

#### “POST-OP” AND “STRENGTH”

Select the option directed by your healthcare provider.

#### Adjust Stimulation Intensity

Use the controls to increase the intensity of stimulation until a **strong but comfortable muscle contraction** is achieved.

**Stimulation levels may be adjusted at any time during your treatment session.**



- ✔ Select the “+” sign to deliver electrical stimulation to your quadriceps muscles. You may feel light tingling until you reach a comfortable muscle contraction.
- ✔ Set intensity levels for both the knee and thigh areas. Note: It is common to require different levels of stimulation for each area.
- ✔ Select the “START” button to begin your 20-minute treatment session.
- ✔ Press the rectangular button under the display screen to PAUSE treatment if needed. Press the “RESUME” button on the start screen to continue treatment.
- ✔ The controller may be placed inside the provided pouch and adhered to the side of the garment for convenience during treatment sessions.
- ✔ When your treatment session has ended, turn off the controller and unplug it from the conductive garment by pressing inward on both sides of the connector.
- ✔ To reduce the risk of skin irritation or burns, utilize a small amount of gel for each treatment session and replace electrodes frequently.

### STEP 4 Charge the Controller

To charge your device, turn off the controller and plug the charging cable into the left side of your controller. Insert into a wall adapter and electrical outlet.