Empowering patients to be prOActive with their knee osteoarthritis
Understanding the Role of Muscle Weakness in Osteoarthritis

Knee osteoarthritis (OA) is caused by the degeneration, or breakdown, of articular cartilage in your knee joint. OA can impact your current lifestyle, causing knee pain, stiffness, limited movement, and loss of thigh muscle strength.

Your quadriceps muscles – or thigh muscles – play an important role in managing your joint pain from osteoarthritis. Acting as shock absorbers, your quadriceps help reduce the strain on your knee during daily activities. However, these muscles can weaken over time as your arthritis progresses. The weakening of this muscle group due to limited or modified use caused by knee osteoarthritis is known as quadriceps atrophy. Muscle atrophy is considered one of the most prevalent and correctable underlying clinical conditions associated with knee osteoarthritis.

The muscle weakness associated with your OA may be the primary cause of lost function. A key factor in your treatment relies on regaining lost strength to help manage arthritis progression and prevent further weakening of your muscles.

Muscle Atrophy can be Reversed:

Through the use of e-vive Neuromuscular electrical stimulation (NMES), electrical stimuli is applied to a group of muscles for the purpose of muscle rehabilitation and strengthening. NMES uses electrical muscle stimulation (EMS) to cause excitement in the muscle tissue. This is achieved by passing mild electrical impulses from a device through electrodes placed on the skin over the targeted muscles. The NMES stimulus is designed to mimic the same type of signal the brain sends to the muscle when exercising.

TENS and NMES therapies are frequently misunderstood. These therapies target different nerve groups of the body. TENS targets the sensory nerves, which are responsible for sending pain signals to the brain. NMES targets the muscle itself, specifically through the motor nerves. The stimulation of motor nerves causes the muscle to contract, allowing the NMES device to recruit more muscle fibers and create a full muscle contraction. Sensory and motor nerves react to different frequencies, which is why NMES and TENS devices affect the body differently.

Let e-vive™ Help You Regain Strength

NMES is a proven modality to treat muscle weakness, re-educate atrophied nerve-to-muscle communication, and increase muscle function. By strengthening the quadriceps, it has the ability to correct imbalances and reduce additional stress on the joint, thereby potentially slowing the progression of OA. An increase in muscle strength can support your return to an active lifestyle and delay surgical intervention.

TENS vs. NMES
What’s the Difference?

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Treat Your OA from Home with e-vive™

The CyMedica e-vive™ system is an app-based muscle strengthening solution designed to help you be proactive with your osteoarthritis conveniently from home. The device uses advanced NMES therapy to activate and strengthen your quadriceps muscles, potentially reversing muscle atrophy commonly associated with OA. As your muscle strength improves, so will your quadriceps’ ability to reduce the stress on your knee joint, decreasing pain and improving mobility.

Be prOActive with managing your OA

The e-vive™ smart device app allows you to take charge of your care, giving you control of NMES sessions and the ability to monitor your improvement in real-time. The app’s secure data collection enables your provider to access key information to make decisions about your progress and treatment. e-vive™ goes beyond managing symptoms by helping you take back your freedom and maintain your active lifestyle. e-vive™ can prevent the need for additional medications and treatment, potentially saving you time and money.

If you suffer from knee osteoarthritis, it is likely that you want to:

- Relieve knee pain
- Restore function in your knee
- Delay knee surgery
- Treat your knee OA conveniently from home

FIND YOUR KNEE STRENGTH AGAIN
The e-vive™ system consists of three components:

**The e-vive™ Conductive Garment**
The easy-to-wear conductive garment precisely places the electrodes over specific areas of the thigh for direct targeting of your quadriceps muscles. The garment also includes built-in sensor technology to measure and collect data on your knee joint’s range of motion.

**The e-vive™ Controller**
The e-vive™ controller delivers our unique form of NMES to the electrodes on your skin. This proprietary CyMotion™ technology consistently monitors and adjusts the power delivered to your muscles for maximum comfort and effectiveness.

**The e-vive™ App**
The e-vive™ NMES system is operated through the CyMedica e-vive™ app, which can be downloaded onto virtually any smart device. The intuitive app gives you complete control of your therapy, allowing for customized settings to achieve strong, comfortable muscle contractions. Through the app, your personalized data is collected and sent to a secure cloud, where your healthcare provider can easily monitor your progress.

**No Smart Phone? No Problem!**
The CyMedica QB1™ device offers the same advanced NMES therapy without the need for a smart device. Contact CyMedica Orthopedics® for more information.
What’s so special about CyMedica’s NMES Technology?

Our unique waveform, CyMotion™ Technology, is a closed-loop feedback system designed to deliver customized, patient-specific stimulation. The e-vive™ system constantly adjusts energy levels for each patient to ensure a comfortable level of stimulation while achieving a clinically relevant muscle contraction.

The strength to get back to an active lifestyle.

CyMedica NMES helps reduce pain and improve function in patients with knee osteoarthritis:

Graph showing decrease in patient pain over time.

*Internal data on file
Many commercial and Medicare insurance plans may provide partial or full coverage for your NMES device. Alternatively, CyMedica is pleased to offer several other affordable options, including an interest free payment plan. As a courtesy, an assessment of your insurance eligibility and estimated patient responsibility will be provided before you are asked to make any commitment to purchase.

Insurance Coverage for NMES

Imagine your life with less arthritis knee pain

Stay prOActive in your OA journey
e-vive™ is designed to support you through your entire journey of knee osteoarthritis. Consistent use of your e-vive™ device will help you treat symptoms through all stages of your arthritis, and maintain healthy muscles for life beyond OA.

Take control of your osteoarthritis. Ask your doctor if the e-vive™ system is right for you.

For full prescribing information, please visit www.cymedicaortho.com.

Imagine your life with less arthritis knee pain

CyMedica’s e-vive™ can help strengthen your quadriceps muscles and relieve the pain.

Ask your doctor about the e-vive™ muscle activation system today!

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