chattanooga®
Moving Rehabilitation Forward

Chattanooga® Continuum™

Switch on Recovery

chattanooga®
DESIGNED & ASSEMBLED
IN USA

Chattanooga® Continuum™

The Chattanooga® Continuum™ is a portable 2 channel stimulator used by therapists in clinics and patients at home to provide electrical stimulation treatments in pain management (TENS) and neuro muscular stimulation (EMS/NMES).

Whether looking to strengthen muscles to help prevent injury, or during recovery following trauma or surgery, clinicians and their patients can experience improved results by incorporating Continuum into their treatment.[1,2] Along with its portability, the device's optional remote switches make it suitable for functional rehabilitation. And by combining TENS with NMES, users can simultaneously help manage pain and enhance exercise, thereby shortcutting the traditional muscle recovery cycle. Factor in a choice of program options including customizable waveforms, and you have a highly versatile and user-friendly rehabilitation tool that can help deliver optimal therapeutic outcomes.

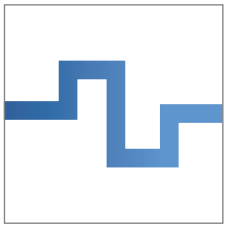
Product features

1+1 Function

Continuum features 2 separate channels that can be managed independently. Users can select either the same program on both channels, or 2 different programs to be used simultaneously. This allows the clinician to employ electrotherapy throughout the healing cycle with a single device.

Hand switch

This handheld remote trigger can be used to easily activate stimulation, either by the clinician at a distance, or by the patient.



Generating a strong contraction

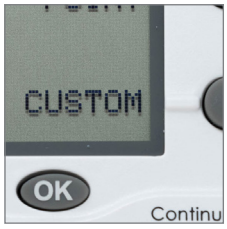
Continuum delivers muscle stimulation that is powerful whilst remaining comfortable. This allows users to push the intensity of stimulation without the recipient experiencing the sharp spiking sensations of less efficient waveforms. Thanks to this ability to utilise stronger stimulation, it can help the muscle work harder, helping it to grow stronger, faster.

Kick stand

Keep your hands free by deploying the kick stand during treatment.

Battery powered

Continuum runs on a pair of standard AA batteries.

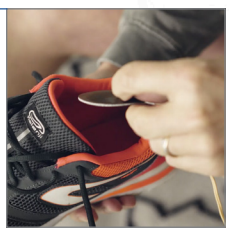


Individually tailorable

Continuum has 13 pre-programmed and two custom regimens for NMES and TENS. In addition to being able to control the treatment duration time, the device can modify waveform type (Symmetrical or Asymmetrical), pulse rates and durations (widths), cycling type, off times, channel ramp times, and on time. All of this allows the clinician to customize treatment to help meet the individual needs of each patient.

Belt clip

The simple belt clip fits over a belt or waistband.



Heel switch

When placed inside the user's shoe, this optional heel switch can be used to trigger muscle stimulation, useful for gait training and treatment of drop foot.

Stimulate power and motion

Continuum's™ ability to combine TENS and NMES in a single treatment can help patients to reduce debilitating pain, whilst helping to boost the effectiveness of their exercise. This function makes Continuum a powerful ally during the struggle to return to fitness following injury or surgery.

SHOULDER
Minimize Pain

Rehabilitation therapies after rotator cuff surgery using NMES and TENS, coupled with exercise, help to minimize pain, increase local circulation, and restore flexibility - enhancing recovery.[8,9]

KNEE
Reeducate weakened muscle as a result of disuse atrophy

After total knee arthroplasty (TKA), patients show long-term weakness of the quadriceps and reduced function. These limitations result from weakness before surgery and pain and swelling after surgery.[4,6] Weakness has been associated with slower walking speeds, longer stair-climbing times, and increased risk of fall.

STROKE
Gait Control[12]

Ankle dorsiflexion weakness that impedes walking affects some 30% of people after a stroke, increasing the risk of falls and mortality. Continuum's optional heel switch can be used for therapeutic gait training, triggering stimulation of the muscle during contact. Whilst research suggests electrical stimulation has no superiority to a traditional ankle foot orthosis (AFO), its use may be optimal in patients due to their preference for electrical stimulation over AFO.

Activate Muscles with Continuum™

By incorporating NMES into their rehabilitation program, therapists and patients can experience an aid in improving recovery results.

PRE-OPERATIVE

Re-educate Muscles to Improve Outcomes

Joint disease and injury decreases strength and function and increases joint pain. As these conditions progress they may require surgery. Measures of strength, functional ability, and pain predict post-surgery outcomes. Rehabilitation therapies before knee surgery can improve these conditions - helping to improve post-surgical results (Fig. 1).[1, 2]

POST-INJURY or POST-OPERATIVE

Activate Muscle to Restore Muscle Functioning[4]

Early application of neuromuscular electrical stimulation (NMES) after surgery maximizes rehabilitation by reeducating the muscle, improving function, and getting patients back to their daily activities quicker (Fig. 2).[5]

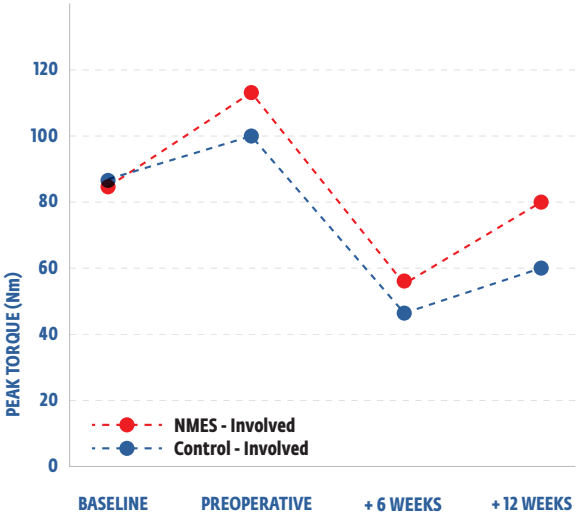


Fig. 1: Pre-operative use of NMES may lead to increased muscle strength following TKA[3]

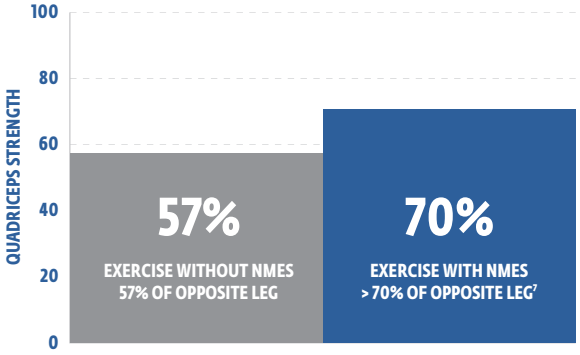


Fig. 2: Exercise combined with NMES in the treatment of disuse atrophy following ACL injury leads to quicker recovery[5]

Did you know that ... ?

NMES after Rotator Cuff Repair Surgery

↑22%

PEAK EXTERNAL ROTATION FORCE

independent of age, tear size, intensity, days post-op.[8]

NMES Increases Quad Strength

41% BETTER

than exercise alone in TKA patients.[4]

7/8

Favor NMES for muscle strengthening[10]

Literature review of eight Randomized Controlled Trials assessing quad strength outcomes (Continuum™ indicated for disuse atrophy) favor NMES as a part of the muscle strengthening program.

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Ordering Information

Kit Contents

Part number: 2600-KIT

Part number	Description
2600-DEV	Chattanooga® Continuum™ device
2615	Set of 2 pin cables
13-00183	User manual and practical guide
2049	Transportation pouch
2630	Hand Switch

Optional Accessories

2645	Heel/foot switch

Chattanooga Continuum is a prescription device.
Contact your local Sales Representative for more information or if you want to prescribe the device.

Clinical References

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6. *Snyder-Mackler. Strength of the quadriceps femoris muscle and functional recovery after reconstruction of the ACL. J Bone Joint Surgical. 1995:1116-1173.*
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11. *Fishbain DA, Chapel C, Abbott A. Transcutaneous electrical nerve stimulation (TENS) treatment outcome in long-term uses. Clin J. Pain. 1996:12:201-214.*
12. *Bosch PR et al. Review of therapeutic electrical stimulation for dorsiflexion assist and orthotic substitution from the American Congress of Rehabilitation Medicine stroke movement interventions subcommittee. Arch Phys Med Rehabil. 2014 Feb;95(2):390-6*

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