



The Complete Physical Therapy Solution



- 2 Channels of SEMG**
- 2 Channels of Stimulation**
- 2 Channels of SEMG-Triggered Stimulation**

MyoTrac Infiniti™ redefines the field of muscle re-education and rehabilitation by incorporating unique features designed to meet a wide variety of needs and budgets for clinical, research and home use. The clinical system is further enhanced by the powerful BioGraph Infiniti software, which combines dynamic graphics, with analysis and reporting functions. All the information you need in the palm of your hand.



MyoTrac Infiniti systems allow you to measure high-resolution surface electromyography (SEMG) and perform electrical stimulation in a large number of configurations. The MyoTrac Infiniti stands apart from the competition by also performing SEMG-triggered stimulation. SEMG is used to trigger stimulation, to help patients improve volitional activation of target muscle groups. This combination of three modalities enhances treatment possibilities and eliminates the requirements for multiple devices.

The Platform is divided into three main products:

MyoTrac Infiniti™

Stand Alone device with touch screen

- Bargraphs, linegraphs, stats
- Adjustable gains
- Statistics stored to memory
- Patient lock feature

MyoTrac Infiniti Clinical

All the features of MyoTrac Infiniti plus:

- Data stored on compact flash cards from standard MyoTrac Infiniti units can be transferred to the BioGraph Infiniti clinical systems database.
- On board memory - saves SEMG statistical summary data.
- PC USB interface - allows live recording to BioGraph Infiniti software, powers the unit and recharges the batteries.
- Includes BioGraph Infiniti PC software and specialized Rehab Suite.

MyoTrac Infiniti Dual SEMG and Dual SEMG Clinical

Ideal for those who do not require stimulation. Includes the same SEMG features as the MyoTrac Infiniti. A clinical version with the BioGraph Infiniti software is also available.

Compact Flash



Battery Charging

- External power supply included

Headphone Jack

Audio feedback

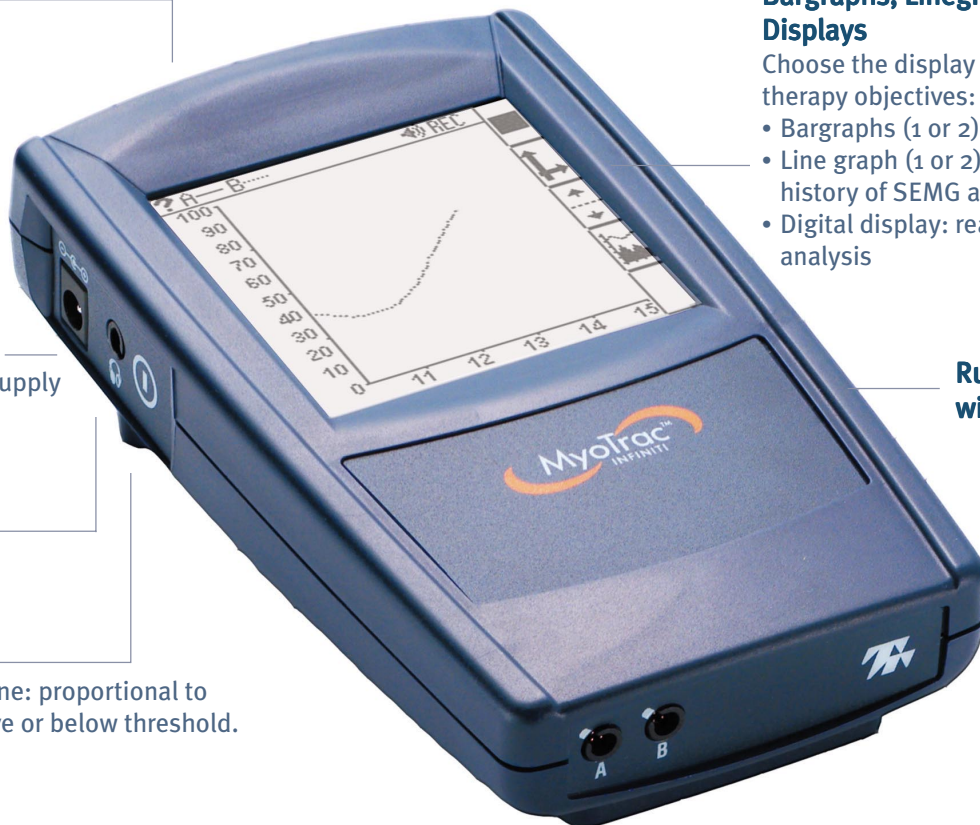
- Variable pitch tone: proportional to the signal or above or below threshold.

Bargraphs, Linegraphs and Digital Displays

Choose the display that best meets your therapy objectives:

- Bargraphs (1 or 2): clear and simple display
- Line graph (1 or 2): complete view of the history of SEMG activity
- Digital display: real time and statistical analysis

Rugged Ergonomic Case with Beltclip



2 Channel SEMG + Stimulation

Hardware Features & Benefits

EMG Raw and RMS

Highest quality fast-sampled SEMG, both in Raw and RMS formats.

Stimulation

User definable stimulation settings includes an intuitive display for quick and precise control.

SEMG-Triggered Stimulation

SEMG-triggered Stimulation combines two complimentary modalities to form a powerful third treatment option. The patient's volitionally-activated SEMG, above or below a preset threshold, is used to automatically start stimulating the muscle being voluntarily contracted. This combination of active and passive muscle rehabilitation teaches patients to gradually learn to voluntarily strengthen muscles through SEMG biofeedback, while being guided by external stimulation of the same muscles.

Same electrodes for all modalities

Monitoring SEMG and stimulating through the same electrodes targets identical muscle sites for both modalities. This provides:

- More accurate monitoring and stimulation, leading to better patient outcomes.
- Decreased electrode costs and clinical setup time.

Preprogrammed Protocols

Choice of open mode or scripted (protocols) sessions.

MyoTrac Infiniti is delivered with a set of pre-programmed protocols:

- 50 Stimulation
- 30 SEMG
- 30 SEMG-triggered stimulation

Customize the MyoTrac Infiniti to your clinical needs

Easily create and save your own protocols for SEMG, stimulation and SEMG-triggered stimulation, using a series of intuitive and guided screens with touch-screen technology.

Data Management and Compliance

Review your SEMG sessions directly on the unit in a statistical summary format, or replay saved sessions from compact flash.

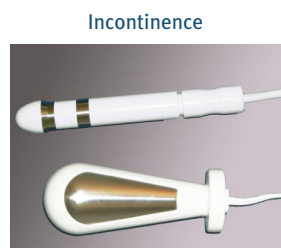
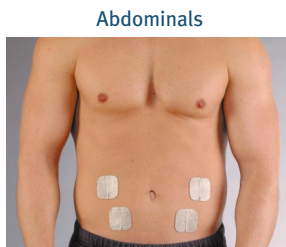
BioGraph Infiniti software offers:

- Advanced and complete database.
- Record, replay and review sessions.
- Statistics, trend reports and single session reports generated from sessions either directly recorded in the software or imported from compact flash.
- Provides useful documentation to demonstrate compliance for third party compensation.

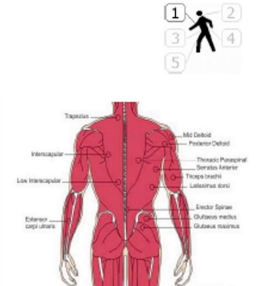
Clinical Guide

The MyoTrac Infiniti includes a suitable clinical guide providing:

- Information on therapeutic protocols.
- Placement of electrodes - with photographs.



Shoulder Atrophy Prevention



This script focuses on the rehabilitation of the shoulder following disuse leading to muscle atrophy. Apply the electrodes as indicated over the Mid-Deltoid adjusting placement and size of electrodes for optimal results based on client physiology. The mid-deltoid is implicated in the stabilization of the shoulder during arm flexion and abduction.

Script Selection	
Shoulder Circulation	5mins
Shoulder Atrophy	20mins
Shoulder Circulation	5mins

Client Name: _____			
Session Number	Date	Max Intensity Reached	Comments
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Patient Lock

Reduce device complexity and ensure prescription compliance, by locking the system to one protocol. Ensure compliance when you:

- Send a patient home with the device.
- Have multiple treatment rooms.

BioGraph Infiniti software combined with the Rehab Suite puts the power in your hands to display data in imaginative and intuitive ways to guide your clients with graphics and sounds - making training invigorating.



The Rehab Suite for MyoTrac Infiniti Clinical combines Thought Technology's powerful BioGraph Infiniti software with specialized protocols, tutorials, screens, animations and statistics, designed to provide customized clinical treatment for your clients. Its flexibility in all aspects of its use, from recording options to protocols and sound and visual feedback, will enable you to reach new levels of treatment.

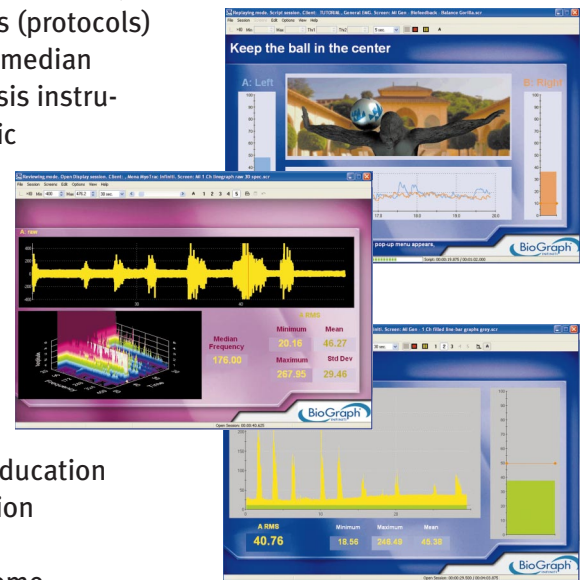
Simply click on 'Start Session', choose your client and training screens, and start treatment. For subsequent training sessions, the client's screens and other settings are loaded from the previous session.

Comprehensive View of Client Rehabilitation

The Rehab Suite provides a wide variety of screens and scripted sessions (protocols) making complete use of raw, median frequency and spectral analysis instruments combined with dynamic graphics.

The MyoTrac Infiniti Rehab Suite was designed to aid in muscle re-education and rehabilitation with a focus on four specialized conditions:

- General SEMG muscle re-education and strengthening/relaxation
- Low Back Pain
- Patellofemoral Pain Syndrome
- Unstable Shoulder
- Incontinence



Audio Visuals Can Make A World of Difference

Comprehensive use of animations and sounds provide relevant rehabilitation goals and activities to keep clients motivated at the highest level:

- Single and dual channel linegraphs, bargraphs and digital displays.
- 3D Spectral displays
- Median frequency for muscle fatigue assessment
- Above and below threshold sound feedback options
- A wide variety of sounds and music controlled by SEMG
- Animations
- Video

Feedback Screens

Created for simplicity and functionality in two formats: pre-defined protocols or open display monitoring. The general SEMG screens provide flexible use with a variety of muscle groups. The screens are further divided into Rehabilitation, Relaxation and Expert groupings, for more specific treatment.





Tutorial Scripts (Protocols)

With the help of various pictures and video demonstrations, the novice trainer can quickly grasp where to place electrodes, view characteristic signals, and learn how to run a scripted session.

Evaluation Scripts (Protocols)

A companion to the Tutorial scripts, these evaluation protocols are a quick and easy way to evaluate your clients.

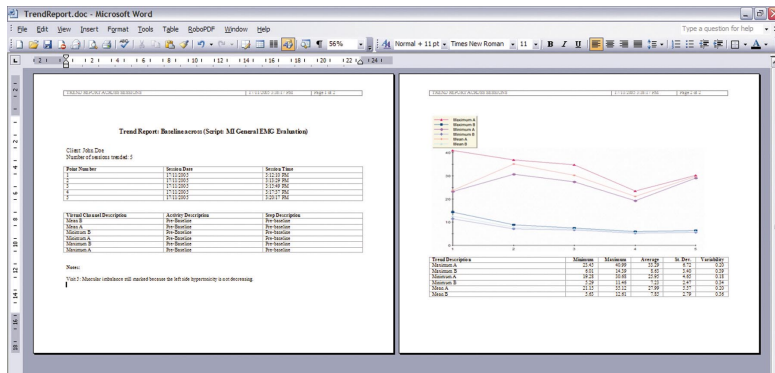
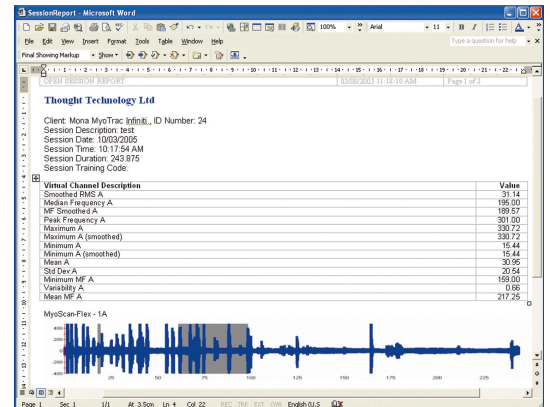
Incontinence Scripts (Protocols)

An extensive set of scripts geared to the treatment of incontinence. The suite provides work-rest or continuous exercise protocols containing templates of varying degrees of difficulty. Allows you to build training programs suited to your client's individual needs.

Customize your reports

Easily editable reports provide valuable information for third party payers and patient files. Editing features include:

- artifact rejection.
- statistics on part or all of the session.
- the ability to save the statistics for clinical reports.
- customizing your documents with your clinic's name and information.

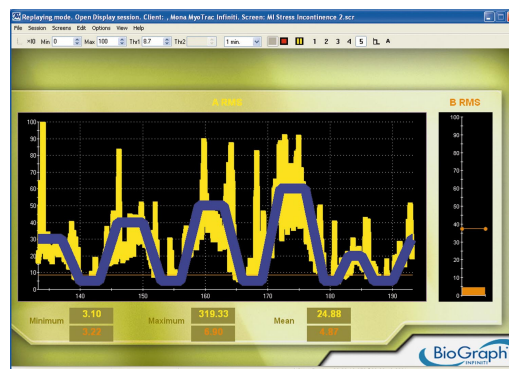


Document Your Client's Progress with a Variety of Trending Options

Trend reporting allows you to graphically and statistically chart a client's progress between or within sessions.

Templates

Templates include a range of simple to challenging visual traces for your clients to follow. The Suite comes with a number of pre-made templates - or you can create your own.



Developer's Tools

For those looking to customize BioGraph Infiti even more, you can obtain a copy of the Developer Tools. The Developer Tools allows you to create new channel sets, screens and scripts. It also enables you to select different sound feedback, animations and other screen design elements. Visit our website for a listing of BioGraph Infiti software and Developer Tools workshops.

MyoTrac Infiniti[®]

Simple to Use. Easy to Interpret.

- 2 channels of SEMG
- 2 channels of STIM
- 2 channels of SEMG-Triggered STIM



- A wide variety of configurations to meet your treatment and budgetary needs.
- Easy to navigate Touch Screen with simple screens to easily guide you through setup and training.
- Over 100 pre-programmed protocols, categorized by body parts for fast access. Room to expand and add your own protocols.
- Clinical Guide includes treatment specific print out sheets to document patient progress and treatment plan.
- A lock feature ensures patient compliance for use in a multi-room clinic or when used as a take home unit to further enhance clinical training.

BioGraph Infiniti Software with Rehab Suite

- Easy to understand Tutorials that guide you through patient setup and progress right into an evaluation.
- Customizable reports for demonstrating compliance for third party billing.
- Templates to guide your patients on their performance goals.
- Color coded screens designed for specific applications.
- Receives data live from the MyoTrac Infiniti USB cable or from data saved to compact flash memory.

Renowned Service and Support.

- Free technical support.
- Affordable workshops.
- Instant built-in help functions in both the software and MyoTrac Infiniti device.

MyoTrac Infiniti allows rehabilitation professionals to access activity - dependent neural plasticity, by providing closed loop re-training of brain function in both children and adults with limitations of spontaneous movement. I expect that it will revolutionize our approach to a wide range of neurological disorders.

*Karen E. Pape, MD, FRCPC, FAAP
Medical Director of the TASC Network*

The Myotrac Infiniti is a very user friendly EMG unit that enables clinicians to have access to important information that would otherwise be missed.

*Jean-Pierre Dumas M.Sc. PT
McGill University, Canada*

MyoTrac Infiniti

Size (approx.)	102mm x 152mm x 51mm (4" x 6" x 2")
Weight (approx.)	330 g (11oz) with Batteries
Power Source	4AAA batteries, single use alkaline or Rechargeable battery pack 6V Medical Grade AC wall adaptor 5V USB
Battery Life, Alkaline cells (1200mAh)	3 - 4h typical
Battery Life, Battery Pack (700mAh)	3 - 4h typical
Low-battery warning	Before shut down
ADC output	14bits
Raw SEMG	2048 samples/second nominal
RMS SEMG	20 samples/second nominal
Encoder channel bandwidth (3dB)	
Internal EMG amplifier	20 - 500Hz
External Sensor Input	DC - 500Hz
Gain accuracy	±0.5 %
EMG Resolution	0.1µV _{RMS}
EMG Input Range	0-2000µV _{RMS}
Stimulation intensity	0mA - 100mA
Stimulation Pulse Rate	2Hz - 100Hz
Stimulation Pulse Width	50-400µs
Ramp Time (Up and Down)	0 - 10 sec



Optional MyoScan Sensor

Includes active electronics to amplify SEMG signals directly at the muscle site to eliminate movement artifact during dynamic movements.

MyoScan EMG Sensor

Size (Approx.)	37mm x 37mm x 12mm (1.45" x 1.45" x 0.45")
Weight	15g (0.5 oz)
Input Impedance	≥10 ¹² Ω in parallel with 10pF
Input Range	0 - 2000µV _{RMS}
Sensitivity	<0.1µV _{RMS}
CMRR	>130dB
Channel Bandwidth	10Hz - 1kHz