MATR Health Inc.

"Muscle-based treatment that will change your life"

Terry Moore, B.Sc., M.Sc., PhD. (abd)

- 24 years experience of treating chronic and recurrent pain based upon discoveries during his PhD studies at the University of Guelph
- Terry Moore developed the MyoWorx[™] Integrated Treatment Program
- Moore's clinic, MMTR Health Inc., is located in Guelph, Ontario.

MMTR Health Inc.

The MyoWorx [™] Integrated Treatment Program is a muscle relaxation and restoration treatment based proprietary technology initially aimed at treating patients with chronic and recurring pain.

Today, MMTR treats many referred patients with various other pathological conditions that have not responded to conventional therapies.

MyoWorx[™]

Integrated Treatment for Chronic and Recurring Pain

The MyoWorx[™] Treatment Program is comprised of 3 parts:

- 1. Individual Patient Assessment
- Muscle Relaxation/Restoration Treatment using the Proprietary TM20 muscle relaxation device. Data strongly suggest it restores function to blood vessels, muscles and nerves
- 3. A Tailored Exercise Program



Individual Patient Assessment

- Detailed focused history
- Examination of symptom areas
- Identifies need for ancillary laboratory tests
- Assessment of contributory factors

MyoWorx[™] Treatment Rationale

Increased tension, painful spasm, fatigue or injury of the muscles supporting the spine can cause pressure on the spinal nerves as well as other paraspinal tissues and structures.

As a result, one can experience:

- pain, tingling or numbness
- altered functioning of muscles
- secondary effects on organs

Unresolved, numerous muscle and joint injuries, chronic or recurring pain and neurological and other physical symptoms can perpetuate

How it works

- A patented device that delivers a sequence of electrical frequencies in a timed manner to the paraspinal structures.
- Pre-clinical studies showed these frequencies can:
 - Re-establish normal resting membrane potentials in the cells of fatigued or injured muscles
 - Evoke CNS activity that facilitates muscle relaxation; long-term effect
 - Produce increases in blood flow via smooth muscle relaxation leading to restoration of oxygen and nutrient uptake

Results in improvement of:

- Muscle function
 - Better ability to stretch and maintain optimal muscle fiber length resulting in increased muscle strength and endurance
- Blood flow
 - Breaks the cycle of vasoconstriction
 - Increases vascular perfusion

Cannot be achieved by stretching and strengthening exercises alone

FDA Approved as a 'Electronic Muscle Exerciser': April 1982 Labeling as follows:

- 1. Relaxation of muscle spasm
- 2. Prevention of retardation of tissue atrophy
- 3. Increasing local blood circulation
- 4. Muscle-re-education
- 5. Immediate postsurgical stimulation of calf muscles to prevent venous thrombosis
- 6. Maintaining of increasing range of motion

Why is the TM20 different from?

- Transcutaneous Electrical Nerve Stimulation (TENS), Interferential Current (IFC), or Muscle Stimulation
 - TENS/IFC manage pain via direct nerve stimulation
 - Increase blood flow and muscle relaxation through varying degrees of electrically-induced muscle contraction

 <u>usually a short term effect</u>
- TM20 patented technology aims directly at reducing the underlying muscle spasm and relieves the associated pathologies of both neurological and micro-vasculature structures
 <u>potentially long term sustainable results</u>



Targeted Exercise and Symptom Management Strategies

- Moderate home-based stretching and strengthening exercises aimed at 're-educating' the musculature
- Essential to providing long-term benefit
- Educates and empowers the patient to manage symptoms
 - Reduces emotional impact
 - Creates awareness of external factors e.g., barometric pressure effects

MyoWorx[™] Program

Clinical Data on Chronic and Recurring Pain

- Consecutive patients treated over a 10 year period
- Data analysis Group: N=518 including 32 patients with associated anxiety and/ or depression
- All patients received the MyoWorx[™] treatment program
- MMTR recorded additional outcomes to determine the effects of the MyoWorxTM Muscle Relaxation/Restoration Treatment and Targeted Exercise on associated conditions

Patient Characteristics

- All patients presented with chronic and recurring pain many of whom, in retrospect, had referred pain syndromes
- Presentation of pain: arthritis, migraine headaches, motor vehicle accidents, occupational origins including repetitive strain injuries
- Pain location: head, trunk and limbs
- Prior therapies included: medications, nerve block, traditional physiotherapy, TENS, acupuncture, chiropractic, and registered massage therapy

Methodology

- The degree of pain in all patients was assessed using the Borg Pain Scale (0 to 10; 10 being most severe)
- Patients pain levels were recorded before and after each treatment
- Symptoms of tingling or numbness were also graded on a similar scale
- Anatomical location of pain, anaesthesia or paraesthesia were categorized as cervical, trapezius, thoracic, lumbar and sacral

Methodology (continued)

Results were grouped as percent reduction in overall pain score:

Category	% Reduction in Pain Level
Poor	0-30%
Moderate	30-70%
Excellent	> 70%

Pain Response by Anatomical Site

(does not include response of referred pain syndromes)

Anatomical Site	Percentage Sustained Reduction in Pain Score				
	Overall Response (n=518)	No Diagnosed Psychological Disorder (n= 486)	Associated Depression or Anxiety Disorder (n=32)		
Cervical	76%	80%	0%		
Trapezius	76%	81%	0%		
Thoracic	79%	85%	0%		
Lumbar	80%	85%	0%		
Sacral	78%	83%	0%		

Response Rates

- When there was an associated referred pain syndrome (most cases), this symptom was abolished in over 90% of instances
- When the response of the associated referred pain syndrome is included in the total response rate, the percentages of responders increased. For example, a patient presenting with sciatica may experience complete resolution of associated pain in the lumber, hip, hamstring, knee and calf areas.

Anatomical Site	Referred Pain Sites	Pre- treatment	Post- treatment	% reduction in pain
Sciatica/ Lumbar		4	1	75%
	Нір	8	0	100%
	Hamstring	8	0	100%
	Knee	8	0	100%
	Calf	8	0	100%
				95% (overall)

Total Responders: Males vs. Females

Poor

Moderate

Excellent



Total Responders: Acute vs. Chronic

Poor

Moderate Excellent



Previous vs. No Previous Therapy

Poor Moderate Excellent



PrevTher (n = 307)

No Prev Ther (n=211)

Occupational Recovery





Age and Recovery

📕 Poor 🛛 📕 Moderate 🖳 Excellent



Key Findings

- The MyoWorx[™] program has a high success rate in relieving acute and chronic pain of multiple origins
- All age groups benefit from treatment
- Outcome is not dependent on prior therapy

MyoWorx[™] Program

Clinical Results on Chronic and Recurring Pain

Therapy had a Major Effect on Work Disability

- After treatment, absenteeism and work disability due to pain were reduced for at least 6 months
- Patients with low back injuries and repetitive strain injuries:
 - treated promptly were able to continue working (*e.g.*, Carpal Tunnel Syndrome)
 - if on disability were able to return to work soon after initiating therapy
- In all responders the pain was durably reduced for at least 2 months

MyoWorx[™] Program

Clinical Data on Chronic and Recurring Pain

Unexpected Additional Benefits Observed (requiring further study)

- Relief of:
 - neuropathy symptoms (*e.g.*, trigeminal neuralgia)
 - Myo-fascial pain (*e.g.*, plantar fasciitis)
- Accelerated healing of wounds (*e.g.*, diabetic foot ulcer)
- Reduction of excessive urinary frequency and urgency

MyoWorxTM Works