



***User Manual***



# User Manual

*3rd Edition*



HawkGrips®  
United States



Emergo Europe  
Prinsessegracht 20  
2514 AP The Hague  
The Netherlands



Consult instructions for use



## Table of Contents

Introduction .....	1
HawkGrips® .....	2
Care Instructions.....	3
Instrument List.....	4
Conditions Treated .....	5
Contraindications.....	6
Use Instructions .....	7
Patient Progression.....	8
Potential Treatment Responses .....	9
Helpful Hints .....	10
Education Information .....	11
Published Research .....	12-16

### TRAINING VIDEO

**View online at:** <https://hawkgrips.com/training-video/>

**Password:** HawkGrips

To begin, let us go over a brief background on physiology to better understand exactly how Instrument Assisted Soft Tissue Mobilization (IASTM) works. Connective tissue serves to provide mechanical support, exchange metabolites between blood and tissues, protect against infection, and repair damaged tissue (Bloom, 1975). The cells embedded in the connective tissue include fibroblasts, myoblasts, and macrophages, to name just a few. Fibroblasts play a large role in connective tissue repair, as they are the ground substance in collagen synthesis (Bloom, 1975).

When soft tissue injury occurs, collagen may be reassembled in abnormal arrangements or cross-linkages resulting in decreased tensile strength, reactivity, and limited range of motion. This decrease in strength, reactivity, and range of motion can allow the involved tissue to become prone to chronic re-injury and/or pain. Soft tissue injury often involves damage to structural elements of the tissue. This may result in rupture of capillaries and arterioles while initiating an inflammatory response. This inflammation promotes healing by removing injured tissue and promoting growth and repair to restore the tissue to its normal physiological function (Depner et al, 2010; Pyne, 1994).

IASTM is an advanced form of myofascial mobilization primarily used to detect and relieve the symptoms of scar tissue, adhesions, and fascial restrictions within the soft tissue. When coupled with stretching, strengthening, and cryotherapy, IASTM is intended to improve connective tissue function. This technique allows a clinician to locate the area of adhesion in the soft tissue involved through the vibrations or undulations of the instruments in the clinician's hands. The clinician may utilize the instruments to encourage remodeling of the abnormal cross linkages between muscle, tendon, or fascia and return the injured area to its optimal function.

The theory behind IASTM was based on Cyriax's concept of cross-friction massage. Cyriax's goals of this massage are to soften or break up scar tissue by providing movement to the tissue itself and increase tissue temperature (Chamberlain, 1982). Tissue movement encourages realignment and lengthening to ensure proper lying down of new collagen without stretching or tearing the healing fibers. Collagen, being the basic fiber of soft tissues, needs to lay down parallel to each other to provide rigidity and strength in mechanical tension. Cyriax hypothesized that cross-friction massage will not detach fibrils during healing but instead will prevent their adherence at abnormal sites, thus decreasing abnormal adhesions in connective tissue (Chamberlain, 1982).

The exact effects of how IASTM decreases pain and increases ROM are unknown. However, there are numerous theories based on animal models and our working knowledge of cellular physiology. IASTM, like other manual therapies, may decrease pain via the Gate Control theory (Bayliss et al, 2011; Gulick, 2014) and increase ROM via reduction in muscle guarding (Lee, 2016; Jae Lee, 2014; Laudner et al, 2014; Markovic et al, 2015), mechanotransduction (Khan et al, 2015; Thompson et al, 2016), and breaking cross-links (Chungtai et al, 2016; Davies et al, 2010; Wang et al, 2007). For more information on these theories, please see one of our certification continuing education courses and/or the references at the back of this User Manual.

# HawkGrips®



- HawkGrips® are ergonomically advanced, professionally engineered instruments specifically designed to detect and treat soft tissue dysfunction in muscle, fascia, tendons, and scar tissue.
- HawkGrips are contoured to facilitate treatment around different body parts.
- HawkGrips were designed to conform to different body soft tissue contours and joint shapes.
- HawkGrips were designed with the practitioner in mind. The instruments are textured to give the clinician a better “grip.” This allows the practitioner to use less force while holding the instruments, resulting in a reduction of fatigue in the hands and wrists. The handlebar instruments were designed to be held comfortably, with no stress being placed on the thumbs by the practitioner.
- HawkGrips allow clinical goals to be accomplished more effectively in less time, with less pressure, and less discomfort and strain on the part of the clinician.

\*Disclaimer: HawkGrips instruments were designed and are intended for use by trained healthcare professionals. Use of these instruments without proper training and experience could result in injury.

## Caring for Your Instruments

- Instrument edges can become damaged with improper use - always inspect instruments for sharp or rough edges before using them on a patient.
  - Avoid dropping instruments.
  - Avoid picking up multiple instruments and allowing them to hit or rub against each other.
  - Store instruments within their carrying case, a foam tray, or other protective container.
- Clean instruments between each patient with disinfectant cleaner (i.e. alcohol-based cleaners) and a soft cloth.





# The Instruments

HG1 - "Small Handlebar"



HG2 - "Medium Handlebar"



HG3 - "Large Handlebar"



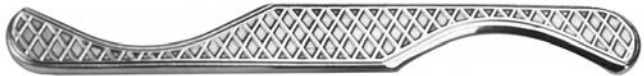
HG4 - "Small Multi-Curve"



HG5 - "Medium Multi-Curve"



HG6 - "Large Multi-Curve"



HG7 - "Boomerang"



HG8 - "Scanner"



HG9 - "Tongue Depressor"



The "HGPro"



HawkGrips can be used to treat a large range of abnormalities that include:

### ***TENDINOPATHIES***

Such as lateral epicondylitis, trigger finger, and Achilles tendinitis.

### ***POSTURAL ABNORMALITIES***

Such as upper and lower cross syndrome.

### ***MYOFASCIAL PAIN SYNDROMES***

Such as fibromyalgia, ITB syndrome, and plantar fasciitis.

### ***ENTRAPMENT SYNDROMES***

Such as carpal tunnel and thoracic outlet syndrome.

### ***LIGAMENT PAIN***

Such as chronic and acute ankle sprains.

### ***SCAR TISSUE/ADHESIONS***

Such as mature post-surgical scarring.

(Best used in conjunction with creams used to treat the appearance of scars.)

### ***EDEMA REDUCTION***

Such as acute swelling and lymphedema.





## Contraindications and Precautions for IASTM

Contraindications	Precautions
Patient refusal	Increased symptoms
Localized infection	Anticoagulant drug therapy
Hematoma (directly over site)	Varicose Veins
Myositis ossificans	Diabetes
Over fracture site	Auto-immune disorders
Inflammatory skin conditions	Chronic Regional Pain Syndrome
Osteomyelitis	Surgical incisions that are not fully coapted
Thrombophlebitis	Any condition where the soft tissue is weakened or compromised
Over open wounds	

\*It is important to be mindful when treating near a joint that is affected by an autoimmune inflammatory disease such as rheumatoid arthritis, as this could cause an unwanted increased inflammatory response.



### WARM-UP:

- Ultrasound, diathermy, hot-pack, or active exercise (e.g. stationary bicycle).

### INSTRUMENT APPLICATION:

- Apply a small amount of emollient; just enough to make the skin shiny. (Avoid build up of the emollient on the instrument during treatment).
- Identify the treatment edge.
- Keep the angle of the treatment edge on the skin between 30 and 60 degrees.
- Apply light pressure through the instrument, keeping wrists in a neutral position and fingers loose, in a sweeping motion from proximal to distal or distal to proximal. Decrease pressure as you slide the instrument back proximally, never removing the instrument from the patient's skin.
- Basic scan of area to find adhesions.
- Use appropriate instrument(s) and stroke(s) for a more precise, focused treatment.
- Finish with broad strokes in the direction of the heart to control any heightened inflammatory response.

### STRETCHING & REHABILITATIVE EXERCISE:

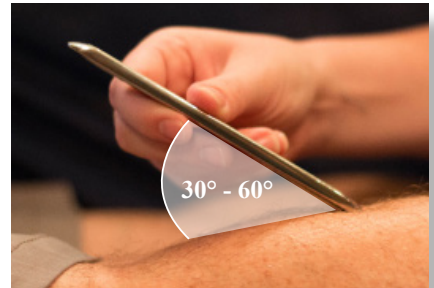
- High-repetition, low-load exercise.
- Stabilization exercises.
- Proprioceptive training.

### NOTES:

Depending on the structures involved in treatment, cryotherapy may be warranted at the end of treatment. If the condition is inflammatory in nature such as acute injury, tendonitis or bursitis, clinician may recommend using ice to control any extra inflammation post treatment.

HawkGrips therapy is best used as a conjunctive therapy. Encourage your patients to perform stretching and high-repetition, low-load exercises that utilize the involved tissue after receiving an IASTM treatment to encourage proper lying down of new collagen.

HawkGrips can be used in conjunction with (and not limited to) kinesiology taping, electrical stimulation, corrective exercise, cupping, nerve glides, joint manipulation, etc.



### STROKES

**Brush** - desensitize dermatomes with very light pressure stroke, treated in all directions.

**Sweep** - scan for adhesions in a unidirectional, distal to proximal or proximal to distal manner.

**Fan** - scan for adhesions in different planes by fixing one side of the instrument to the skin while pivoting the other side, like opening a fan.

**Strum** - small strokes on localized adhesions, treated in all directions.

**J-Stroke** - sweeping stroke ending with a sharp curve, appearing like a "J". Used often to treat around bony prominences.

## Patient Progression

### FIRST PHASE:

**First session:** Soft-tissue evaluation and gentle treatment to desensitize dermatomes and gauge patient response with the treatment tissue on slack, in a relaxed position.

**SECOND PHASE:** Implement HawkGrips therapy with the tissue on a stretch.

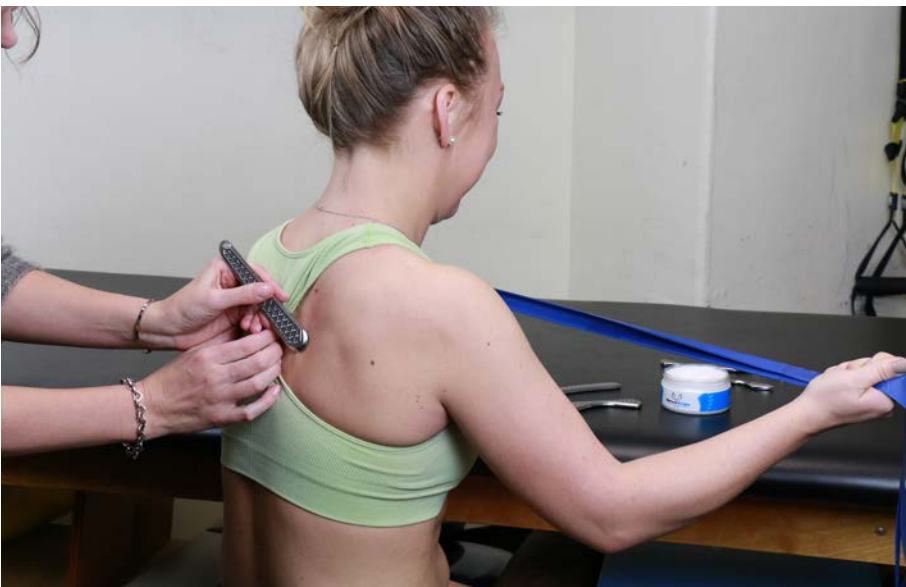
**THIRD PHASE:** Implement HawkGrips therapy while the patient is doing rehabilitative exercise (high-repetition, low-load; postural positioning; proprioceptive training, etc).

### NOTES:

Progression may occur at different times for different patients. A patient may need numerous treatments to desensitize dermatomes before tolerating a deeper treatment.

As a patients' therapy starts to plateau, move them to the next phase of HawkGrips therapy. Treating a tissue on stretch will increase the intensity of the treatment as will treating the tissue while the patient is firing that muscle, as during a rehabilitative exercise. (i.e. treating the patellar tendon while the patient is performing 15-18 body weight squats)

Modify technique to maximize response and improve functional levels. Always use your best clinical judgement during treatment.



## Potential Treatment Responses

It is essential that the clinician appropriately coach patients through potential side effects. Some patients may experience the following responses during treatment:

### **PAIN:**

- Be in constant communication with your patient to ensure the amount of pressure is to the patients' tolerance.
- Determine a sign that indicates "stop" that the patient can use if a technique is painful.

### **PETECHIAE:**

- Petechiae are small broken capillaries underneath the skin.
- Caused by friction.
- Serve as a sign that it is time to end treatment in that area, as you may have initiated an uncontrolled inflammatory response that can lead to bruising.

### **BRUISING:**

- Bruising is not a desired outcome, but may occur as a result of over-treating.
- The epithelial walls of capillaries in traumatized areas are weakened due to chronic or acute inflammation and swelling.
- As scar tissue is released from healthy tissue, capillaries that have infiltrated the scar may rupture, resulting in a visible bruise. Forewarn the patient of this possibility, and explain why it may occur.
- Dysfunctional soft tissue is more susceptible to bruising than healthy tissue.
- Clear communication with the patient is important. Above all use your clinical experience to decide the best course of treatment for your patient.

### **DO NOT OVERTREAT!**

Excessive treatment may exacerbate a patients' condition. The goal is to promote realignment of fibers and encouraging healthy use of the involved tissues.

## Helpful Hints

- Single-bevel edges penetrate deeper than double-bevel edges.
- Single-bevel treatment strokes are applied in only one direction. When you are ready to treat in the opposite direction, you must turn the instrument around so that the bevel edge remains against the skin.
- Double-bevel strokes can be applied in both directions.
- Always position your patient to ensure practitioner comfort during the entire treatment.
- Treat the entire kinetic chain. Do not concentrate only on area of pain.
- Do not overtreat. This may lead to uncontrolled inflammation and bruising.
- There is no substitute for hands-on experience. The more time you spend utilizing the instruments and practicing IASTM in real-life situations, the more comfortable and effective you will become.



## Become a Certified HawkGrips Practitioner

We've provided the framework with this user manual, now give yourself complete knowledge of IASTM!  
We offer multiple levels of certification courses, which also provide continuing education units.\*



### Why choose HawkGrips Continuing Education?

- The most current research and information on IASTM techniques
- Hands-on learning: Over 80% of classroom time is lab-based
- Case study-based, with real-life scenarios
- Top-quality instructors (based on attendee feedback)
- Detailed, full-color course manual provided to each attendee to keep
- Certification sets you apart from the crowd!

### Target Audience

The target audience is restricted to those who have achieved, or are a student in their junior or senior year (transcripts required) working towards one or more of the following credentials: ATC, CHT, DC, DO, DOM, MD, MT, OT, OTA, PT, PTA.

For other relevant credentials, please contact HawkGrips to verify eligibility.

### Course Schedules and Locations

Courses are held at various locations throughout the year, across the United States and internationally. We are constantly adding new classes to our schedule, so be sure to check back frequently! A full listing can be found online at [hawkgrips.com](http://hawkgrips.com).

**Call our Education Department,  
email [education@hawkgrips.com](mailto:education@hawkgrips.com),  
or visit our website for more information!**

*\* CEUs vary by location and profession.*



## Published Research

### 2017

Kim J, Sung DJ, Lee J. Therapeutic effectiveness of instruments-assisted soft tissue mobilization for soft tissue injury: mechanisms and practical application. *J Exer Rehab.* 2017; 13(1):12-22.

### 2016

Chungtai M, Mont MA, Cherian BS, et al. A novel, nonoperative treatment demonstrates success for sti total knee arthroplasty after failure of conventional therapy. *J Knee Surg.* 2016; doi: [http://dx.doi.org/ 10.1055/s-0035-1569482](http://dx.doi.org/10.1055/s-0035-1569482).

Davies CC, Brockopp D, Moe K. Astym therapy improves function and range of motion following mastectomy. *Breast Cancer: Targets and Therapy.* 2016; 8: 39-45.

Thompson WR, Scott A, Loghmani MT, Ward SR, & Warden SJ. Understanding mechanobiology: physical therapists as a force in mechanotherapy and musculoskeletal regenerative rehabilitation. *Physical Therapy.* 2016, 96 (4): 560-569.

### 2015

Bailey LB, Shanley E, Hawkins R, et al. Mechanisms of Shoulder Range of Motion Deficits in Asymptomatic Baseball Players. *Amer J Sports Med.* 2015.

Imai K, Ikoma K, et al. Biomechanical and histological effects of augmented soft tissue mobilization therapy on achilles tendinopathy in a rabbit model. *J Mani Physio Thera.* 2015;38(2):112-118.

Kivlan BR, Carcia CR, Clemente FR, Phelps AL, Martin RL. The effect of Astym therapy on muscle strength: a blinded, randomized, clinically controlled trial. *BMC Musculoskeletal Disorders.* 2015; 16:325.

Markovic G. Acute effects of instrument assisted soft tissue mobilization vs. foam rolling on knee and hip range of motion in soccer players. *J Body Movement Ther.* 2015;19:690-696.

Sevier TL & Stegink-Jansen CW. Astym treatment vs eccentric exercise for lateral elbow tendinopathy: a randomized controlled clinical trial. *PeerJ.* 2015; 3:e967.

### 2014

Garrett TR, Neibert PJ. Effect of Graston Technique as a treatment for patients with chronic plantar fasciosis: a randomized controlled trial. *JAT.* 2014 49(3), S57-58.

Gulick D. Influence of instrument assisted soft tissue treatments on myofascial trigger points. *J Bodyw Mov Ther.* 2014 Oct; 18(4):602-607.

Laudner K, Compton BD, et al. Acute effects of instrument assisted soft tissue mobilization for improving posterior shoulder range of motion in collegiate baseball players. *Int J Sports Phys Ther.* 2014; 9 (1): 1-7.

Lee JJ, Lee JJ, et al. Inhibitory effects of instrument-assisted neuromobilization on hyperactive gastrocnemius in a hemiparetic stroke patient. *Bio-Med Mater Eng.* 2014; 24: 2389-2394.

Portillo-Soto A, Eberman LE, et al. Comparison of blood ow changes with soft tissue mobilization and massage therapy. *J Alt Comp Med.* 2014; 20 (12): 932-936.

Vardiman JP, Siedlik J, et al. Instrument-assisted soft tissue mobilization: e cts on the properties on human plantar exors. *Int J Sports Med.* 2014. doi: <http://dx.doi.org/10.1055/s-0034-138543>.

### 2013

Baker RT, Nasypny A, Seegmiller JG, Baker JG. Instrument-Assisted Soft Tissue Mobilization Treatment for Tissue Extensibility Dysfunction. *Int J Athl Ther Train.* 2013;18(5):16-21.

## 2012

- Daniels CJ, Morrell AP. Chiropractic management of pediatric plantar fasciitis: a case report. *J Chiro Med.* 2012; 11: 58-63.
- Heyer K, Docherty C, Donahue M, Schrader JW. Effect of implement assisted soft tissue mobilization techniques on iliotibial band tightness. *JAT,* 2012; 47(3): S128.
- McCormack JR. The management of bilateral high hamstring tendinopathy with ASTYM treatment and eccentric exercise: a case report. *J Manual Mani Ther.* 2012; 20 (3): 142-146.
- McCormack JR. The management of mid-portion Achilles tendinopathy with ASTYM and eccentric exercise: a case report. *Int J Sports Phys Ther.* 2012;7(6):672-7.
- Papa JA. Two cases of work-related lateral epicondylopathy treated with Graston Technique and conservative rehabilitation. *J Can Chiropr Assoc.* 2012; 56 (3): 192-200.
- Papa JA. Conservative management of De Quervain's stenosing tenosynovitis: a case report. *JCCA.* 2012; 56(2): 112-120.
- Schaefer JL, Sandrey MA. Effects of a 4-week dynamic-balance-training program supplemented with Graston instrument-assisted soft-tissue mobilization for chronic ankle instability. *J Sport Rehab.* 2012; 21: 313-26.
- Vardiman JP, Horinek RJ, McCartney MK, Graham ZA, Moodie NJ, Gallagher PM. The ability of instrument assisted soft tissue mobilization to attenuate inflammation and symptoms of muscle damage after an eccentric exercise protocol. *JAT,* 2012; 47(3), S142.
- White KE. High hamstring tendinopathy in 3 female long distance runners. *J Chiro Med.* 2012; 10(2): 93-99.

## 2011

- Bayliss AJ, Klene FJ, Gundeck EL, Loghmani MT. Treatment of a patient with post-natal chronic calf pain utilizing instrument-assisted soft tissue mobilization: a case study. *J Manual Manip Ther.* 2011;19(3):127-34.
- Blanchette MA, Normand MC. Augmented soft tissue mobilization vs natural history in the treatment of lateral epicondylitis: a pilot study. *J Mani Physiol Therapeutics.* 2011; 34 (2): 123-130.
- Davies CC, Brockopp DY. Use of ASTYM® treatment on scar tissue following surgical treatment for breast cancer: a pilot study. *Rehabilitation Oncology.* 2010 Jul; 28(3): 3-12.
- Loghmani MT; Warden SJ. Instrument-assisted cross fiber massage alters regional microvascular morphology in healing knee ligaments suggesting possible angiogenesis. *APTA Combined Sections Meeting [platform presentation].* New Orleans (LA). 2011 Feb.
- Looney B, Srokose T, Fernandez-de-las-Penas C, Cleland J. Graston instrument soft tissue mobilization and home stretching for the management of plantar heel pain: a case series. *J Manipulative Physiol Ther.* 2011;34:138-142.
- Miners AL, Bougie TL. Chronic achilles tendinopathy: a case study of treatment incorporating active and passive tissue warm-up, Graston Technique, ART, eccentric exercise, and cryotherapy. *J Can Chiropr Assoc.* 2011; 55 (4): 269-278.
- Slaven EJ, Mathers J. Management of chronic ankle pain using mobilization and ASTYM treatment: a case report. *J Manual Manipulative Ther.* 2011;19(2):108-12.
- Stow R. Instrument-assisted soft tissue mobilization. *Int J Athl Thera Train.* 2011;16(3):5-8.

## 2010

- Bayliss AJ, Klene FK, Gundeck EL, Loghmani MT. Treatment of a patient with post-natal chronic calf pain utilizing instrument-assisted soft tissue mobilization. *APTA CSM [platform presentation].* 2010.
- Davies CC, Brockopp DY. Use of ASTYM® treatment on scar tissue following surgical treatment for breast cancer: a pilot study. *Rehabilitation Oncology.* 2010 Jul; 28(3): 3-12.
- Kline, C. Soft-tissue injuries: better, faster healing. *JACA.* 2010 Nov; 47(8): 16-17
- Forcum T, Hyde T, Aspegren D, Lawson G. Plantar fasciitis and heel pain syndrome. *JACA Online.* 2010 Oct.
- Kline C. Instrument-Assisted Soft-Tissue Mobilization (IASTM) part I: chiropractic help or hindrance? *JACA Online.* 2010 Jul.
- Kline C. Soft-tissue healing, part II: what does Instrument-Assisted Soft Tissue Mobilization bring to the table? *JACA Online.* 2010 Aug-Sep.
- Kline C. Instrument-Assisted Soft Tissue Mobilization [part III]: when to start and what's on the horizon? *JACA Online.* 2010 Oct.
- Mishock J. A treatment option for carpal tunnel syndrome. *The Mercury.* 2010 Oct 25.
- Loghmani MT. Instrument-assisted cross-ber massage improves blood ow in healing knee ligaments suggesting enhanced angiogenesis. *APTA CSM [orthopedic section platform presentation].* 2010.
- McCrea EC, George SZ. Outcomes following augmented soft tissue mobilization for patients with knee pain: A case series. *Orthopaedic Physical Therapy Practice.* 2010 Apr; 22(2): 69-74.
- Page P, Labbe A. Adhesive capsulitis: use the evidence to integrate your interventions. *North American Journal of Sports Physical Therapy.* 2010 Dec; 5(4): 266-272.
- Schultz L. Save your shoulder: part 1. *examiner.com.* 2010 Oct 17.

## 2009

- Bosak C. Improving range of motion in breast cancer survivors. *The Hour*. 2009 Jul 16.
- Brantingham JW, Globe G, Jensen M, Cassa TK, Globe D, Price J, Mayer SN, Lee F. A feasibility study comparing two chiropractic protocols in the treatment of patellofemoral pain syndrome. *JMPT*. Sep 2009; 32(7): 536-548.
- Hammer W. Movement heals. *Dynamic Chiropractic*. 2009 Sep; 27(19).
- Hammer W. Manual loading for lateral epicondylopathy. *Dynamic Chiropractic*. 2009 Apr 22; 27(9).
- Howitt S, Jung S, Hammonds N. Conservative treatment of tibialis posterior strain in a novice triathlete: a case report. *J Can Chiropr Assoc*. 2009; 53(1).
- Kelly A. Tough massage with results. *kfrtv.com*. 2009 Jan 29.
- Khan KM, Scott A. Mechanotherapy: how therapists' prescription of exercises promotes tissue repair. *Br J Sports Med*. 2009;43:247-251.
- Loghmani MT, Warden SJ. Instrument-assisted cross-ber massage accelerates knee ligament healing. *Journal of Orthopaedic & Sports Physical Therapy (JOSPT)*. 2009 Jul; 39(7): 506-514.
- Lukacs C. Survivor support: DC brings range of motion to breast cancer survivors. *ACA News*. 2009 Nov.
- Stromberg C. Chiropractic treatment indispensable for soft tissue injuries. *Wilmington News Journal*. 2009 Jan 15.

## 2008

- Hammer WI. The effect of mechanical load on degenerated soft tissue. *J Bodyw Mov Ther*. 2008;12(3):246-256.
- Lui, J. Instruments of change. *Experience Life*. 2008 Oct.
- Shedden M. This massage method produces results. *Tampa Bay Online*. 2008 Nov 25.

## 2007

- Aspegren D, Hyde T, Miller M. Conservative treatment of a female collegiate volleyball player with costochondritis. *J Manipulative Physiol Ther*. 2007;30(4):321-325.
- Burke J, Buchberger DJ, Carey-Loghmani MT, Dougherty PE, Greco DS, Dishman JD. A pilot study comparing two manual therapy interventions for carpal tunnel syndrome. *Journal of Manipulative and Physiological Therapeutics (JMPT)*. 2007 Jan; 30(1): 50-61.
- Hayes D, Loghmani MT, Lubitz R, Moore E. A comparison of two instrument-assisted soft tissue mobilization techniques: effects on therapist discomfort/fatigue and treatment time. *JOSPT*. 2007 Jan; 37(1): A17.
- Loghmani MT, Kiesel J, Lassiter J, Taylor L, Beaman M, Grogg J, Streeter H, Warden SJ. Long-term effects of instrument-assisted cross-ber massage on healing medial collateral ligaments. *JOSPT*. 2007 Jan; 37(1): A18.
- Ploski, M. MCL injury massage. *BioMechanics*. 2007 Oct.
- Ploski, M. Plantar fasciitis treatment. *BioMechanics*. 2007 Aug.

## 2006

- DeLuccio, J. Instrument-assisted soft tissue mobilization utilizing Graston Technique: a physical therapist's perspective. *Orthopaedic Physical Therapy Practice*. 2006; 18(3).
- Howitt S, Wong J, Zabukovec S. The conservative treatment of trigger thumb using Graston techniques and active release techniques. *J Can Chiropr Assoc*. 2006;50(4):249-254.
- Matthews S. Graston Technique helps athletes get back into the game. *indychannel.com*. 2006 Oct 25.

## 2005

- Hammer WI, Pfefer, MT. Treatment of a case of subacute lumbar compartment syndrome using the Graston Technique. *JMPT*. 2005 Mar/Apr; 28(3): 199-204.
- Smith S. Faster, better, easier soft-tissue mobilization. *Exploring Hand Therapy*. 2005 Apr; 5(1): 1,3,4,9,13,18.
- Smith S. A growing trend in hand therapy: instrument-assisted soft tissue mobilization helps therapists work smarter, not harder. *Physical Therapy Products [feature cover article]*. 2005 Apr/May.

## 2004

- Boughton B. Wristoration: alleviating the pain of carpal tunnel syndrome. *BioMechanics*. 2004; 11(1): 20-27.
- Duffy M, Greenapple S. Graston Technique: the (non-)cutting edge of treatment. *Carolina SportsLink Magazine*. 2004 May; 18.
- Hammer WI. Instrument-assisted soft tissue mobilization: a scientific and clinical perspective. *Dynamic Chiropractic*. 2004 May 24; 22(11): 28, 47.

Perle SM., Lawson G. Stimulating healing by initiating an inflammatory response. *Canadian Chiropractor*. 2004 Apr; 9(2): 10-13.

## 2003

Hammer WI. Applying the Graston Technique: an update. *Dynamic Chiropractic*. 2003 Jan 1; 21(1).

Hammer WI. Joint preservation is necessary for hands-on chiropractic. *Dynamic Chiropractic*. 2003 Nov 30; 21(25).

Hyde TE. The Graston Technique: a new manual therapy for back pain. *spine-health.com*, posted: 2003 Aug 5.

Hyde TE. Graston Technique for athletic injuries. *D.C. Tracts*. 2003 Fall; 15(3): 2-4.

Martinez R. Graston instrument assisted soft tissue mobilization. *Integrative Medicine*. 2003 Jun/Jul; 2(3): 18-23.

Perle SM. The leading edge. *Training & Conditioning*. 2003 Oct; XIII(7): 27-31. Chiropractic soft tissue expertise: boon to patients. Focus Article: *JACA*. 2003 Sep.

Wilczewski K. Changing the treatment of soft tissue injuries. *The American Chiropractor*: 2003 Jan.

Wilson, JK, Sevier TL. A review of treatment for carpal tunnel syndrome. *Disability and Rehabilitation*. 2003; 25(3): 113-119.

## 2002

Hammer WI. The pathology & healing of tendinosis. *Dynamic Chiropractic*. 2002 Apr 22; 20(9).

Hammer WI. Rotator cuff tendinosis. *D.C. Tracts*. 2002 Spr;14(1): 3-6.

Mackin EJ, Callahan AD, Skirven TM, Schneider LH, Osterman AL, Hunter JM, eds. *Rehabilitation of the Hand and Upper Extremity*. St. Louis: Mosby. (DDD) 2002; 1271-1281.

Snodgrass SJ, Rivett DA. Thumb pain in physiotherapists: potential risk factors and proposed prevention strategies. *The Journal of Manual & Manipulative Therapy*. 2002; 10(4): 206-217.

Wilczewski K. The Graston Technique: changing the treatment of soft tissue injuries. *The American Chiropractor*. 2002; 25(6).

## 2001

Falvey M. The promise of tissue remodeling. *Dynamic Chiropractic*. 2001 Mar; 26: 8-9.

Hammer WI. Weak abdominals – tight lumbodorsal fascia. *Dynamic Chiropractic*. 2001 Nov 19; 19(24).

Hammer WI. Graston Technique: a necessary piece of the puzzle. *Dynamic Chiropractic*. 2001 Sep 24; 19(20).

Hammer WI. Knee stiffness in a young athlete after activity. *Dynamic Chiropractic*. 2001 Jul 30; 19(16).

Kipp D, Wilson JK. Carpal tunnel syndrome: a critical review. *Critical Reviews in Physical Therapy and Rehabilitation Medicine*. 2001; 13(1): 67-77.

## 2000

Falvey M. Repetitive stress injuries: getting back with the Graston Technique. *Claims Magazine*. 2000 Apr; 4(5): 38-46.

Fowler S, Wilson JK, Sevier TL. Innovative approach for the treatment of cumulative trauma disorders. *WORK: A Journal of Prevention, Assessment, and Rehabilitation*. 2000; 9(4): 304-314.

Henry P, Panawitz B, Wilson JK. Rehabilitation of a post-surgical patella fracture: a case study. *Physiotherapy*. 2000; 86(3): 139-142.

Kleinkort JA. A new approach to chronic pain. *Orthopaedic Physical Therapy Practice*. 2000; 12(1): 44-46.

Roush MB, Sevier TL, Wilson JK, Helfst RH, Gehlsen GM, Bassey AL. Anterior knee pain: a clinical comparison of rehabilitation. *Clinical Journal of Sports Medicine*. 2000; 10(1): 22-28.

Sevier TL, Helfst RH, Stover SA, Wilson JK. Clinical trends on tendinitis. *WORK: A Journal of Prevention, Assessment, and Rehabilitation*. 2000; 14(2): 123-126.

Sevier TL, Helfst RH, Stover SA, Wilson JK. Tendinitis: a critical review. *Critical Reviews in Physical and Rehabilitation Medicine*. 2000 Sum.

Sevier TL, Wilson JK. The industrial athlete. *WORK: A Journal of Prevention, Assessment and Rehabilitation*. 2000 Fall.

Sevier TL. Industrial athlete. *Occupational and Environmental Medicine*. 2000; 57(4): 285.

Wilson JK, Sevier TL. Common treatment modalities utilized in treating lateral epicondylitis. *Physical Therapy Reviews*. 2000 Sum.

Wilson JK, Sevier TL, Helfst RH, Honing EW, Gehlsen GM, Thomann AL. Comparison of rehabilitation methods in the treatment of patellar tendinitis. *Journal of Sports Rehabilitation*. 2000; 9(4): 304-314.

Wilson JK, Sevier TL. Methods utilized in treating lateral epicondylitis. *Physical Therapy Reviews*. 2000; 5: 117-124.

## 1999

- Baker D, Wilson JK. Bilateral carpal tunnel syndrome in a piano teacher. *Physical Therapy Case Reports*. 1999; 2(2): 73-76.
- Fowler S. Responding to managed care. *Occupational Health & Safety*. 1999; 68(10): 212-215.
- Gehlsen GM, Ganion LR, Helfst R. Fibroblast response to variation in soft tissue mobilization pressure. *Medicine and Science in Sports and Exercise*. 1999 Apr;31(4): 531-535.
- Haller KH, Helfst RH, Wilson JK, Sevier TL. Treatment of chronic elbow pain. *Physical Therapy Case Reports*. 1999; 2(5): 195-200.
- Henry P, Panawitz B, Wilson JK. Treatment of a bilateral total knee replacement using augmented soft tissue mobilization. *Physical Therapy Case Reports*. 1999; 2(1): 27-30.
- Sevier TL, Wilson JK. Treating lateral epicondylitis. *Sports Medicine*. 1999; 28(5): 375-380.
- Stover SA. Know your enemy. Not all cases of cumulative trauma disorders are alike. *Safety + Health*. 1999; 159(6): 86-87.
- Thomann A. Entering the world of outcome collection. *OT Practice*. 1999; 4(8): 45-47.
- Thomann A, Sevier TL, Wilson JK. Treating soft tissue brosis: a new rehabilitation technique for the treatment of various soft tissue injuries. *Physical Therapy Products*. 1999; 10(5): 56-58.

## 1998

- Focht D. Augmented soft tissue mobilization: a new frontier in treating soft tissue conditions. *OT Practice*. 1998; 3(9): 49-50.
- Melham TJ, Sevier TL, Malnofski MJ, Wilson JK, Helfst RH. Chronic ankle pain and brosis successfully treated with a new non-invasive augmented soft tissue mobilization (ASTM): a case report. *Medicine and Science in Sports and Exercise*. 1998; 30(6): 801-804.
- O'Connor SM. New soft tissue mobilization process claims success in decreasing scar tissue and repetitive motion symptoms. *Work Injury Management News and Digest*. 1998; 7(1): 3.
- Pearson D, Gehlsen GM, Wilson JK, Lee G, Sevier TL. An objective measure of lateral epicondylitis. *Isokinetic and Exercise Science*. 1998; 7: 27-31.
- Sevier TL. Using sports medicine to treat industrial athletes. *Occupational Medicine Clinical Care Update*. 1998;5(7).
- Stover SA. Suggestions for slaying the two-headed CTD beast. *Occupational Medicine Clinical Care Update*. 1998; 5(10).

## 1997

- Davidson CJ, Ganion LR, Gehlsen GM, Verhoestra B, Roepke JE, Sevier TL. Rat tendon morphologic and functional changes resulting from soft tissue mobilization. *Medicine and Science in Sports and Exercise*. 1997 Mar;29(3): 313-319.
- Sevier TL, Wilson JK, Stover SA, Helfst RH. Therapeutic tools in CTS rehab. *CTD News*. 1997; 6(10): 11, 7.