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CASE REPORT

Hip Pain: Using IASTM Approach for Treatment

By Frank J. Klene, SPT; Evelina L. Gundeck, SPT; Sean Hassett, DPT; M. Terry Loghmani, PT, MS; Amy J. Bayliss, DPT, PT.

Patient Profile:

A 25-year-old male patient presented with a 2-month history of left hip pain due to greater trochanteric pain syndrome.¹ The patient reported sharp anterolateral left hip pain with no referral peripherally following dynamic activities, such as playing basketball. As the condition worsened, the patient also reported left hip pain with stair climbing, transferring from sit to stand and left side lying. Following dynamic activity, the patient additionally had night pain with symptoms present for 24 hours following the activity.

Initial Evaluation:

His initial assessment and reassessment was performed by two Doctor of Physical Therapy (DPT) students supervised by the licensed primary treating physical therapist. The DPT students were responsible for taking the objective measurements to reduce bias from the treating therapist at the time of reassessment.

At the initial evaluation, the patient's self reported pain rating was at worst 8/10 with a self-reported functional limitation of 15.44% when measured using the

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Thinking Inside The Web:

Using Social Media to Maximize Your Practice

By Carla Cupido, DC, Vancouver, B.C

Historically, health care professionals only communicated with their patients while within the clinic walls. However, times are changing and this new Internet phenomenon known as social media has transformed the concept of patient education.



While some of us are still trying to figure out what Facebook and Twitter are, others are using such networking and communication applications to benefit both their practice and their patients. To be successful from a marketing perspective, considerable time must be dedicated to online updates. However, simply employing these tools daily or weekly provides your patients

with access to information you feel is important to them.

This increases your patients' perceived value of your service as they are now benefiting from you both on and off your table.

Before we begin, there is a common thread that exists with all of these online services: the more followers you have, the more people you will reach with your information, videos, pictures or whatever it is you are sharing with others.

I am going to break down a few of what may seem like a million social media tools to help you better understand

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Hip Pain: Using IASTM Approach for Treatment *Continued from page 1.*

Musculoskeletal Function Scale.² Impairments were found in left hip range of motion, muscle strength, muscle length and soft tissue quality (Table 1).

Intervention:

The patient was seen six times over a two-week period. After the initial assessment, each treatment was scheduled for 45 minutes and consisted of instrument assisted soft tissue mobilization (IASTM) using the Graston Technique® instruments, targeted stretching and strengthening followed by ice.

IASTM began on initial assessment and consisted of a 5-minute treatment to the tensor fascia lata and borders of iliotibial band. IASTM progressed to 10 to 12 minutes including treatment to the lateral gluteal region and the anterior, lateral and posterior thigh (Figure 1).

The targeted stretches performed were to address the muscle length deficits identified in the hamstring, iliotibial band and rectus femoris. The strengthening exercises targeted the hip abductors, in particular gluteus medius for improved hip stability. The strengthening exercises started in side lying and progressed to standing. The final exercise progression was plyometric exercises which were introduced prior to the patient resuming dynamic sporting activities.



Figure 1: GISTM using GT4

Outcome:

After the six visits, the patient had returned to his previous recreational activities and was able to participate in 90 minutes of dynamic activity with no left hip pain. In addition he had no pain with stairs, sit to stand or lying on his left hip.

A final reassessment was completed only 14 days after the initial assessment. During this assessment, the patient reported no functional limitations using the

Musculoskeletal Function Scale (score of 0%) and his self reported pain level was 0/10 and at worst 2/10. Improvements were also seen in muscle length, muscle strength, and soft tissue quality (Table 1).

A follow-up phone call was made one month after the conclusion of treatment and the patient reported he was pain and symptom free in all activities.

Table 1	Initial assessment	Reassessment (taken 14 days later)
Pain rating	Best 0/10 Worst 8/10	Best 0/10 Worst 2/10
Muscle length: Hamstring*	(L) -44°, (R) -40°	(L) -20°, (R) -15°
Ober's Test ¹	(L) 15.2cm, (R) 14.5cm	(L) 10.2cm, (R) 8.5cm.
Thomas Test [~]	(L) 90° knee flexion*	95° knee flexion bilaterally
Muscle strength: Hip abductors	(L) 4-/5*, (R) 4+/5	(L) 5/5, (R) 5/5
Special tests: Faber's	(+) on left.	(-) bilaterally.
Palpation	Nodular & gravel-like restrictions in left tensor fascia lata, iliotibial band and vastus lateralis.	No soft tissue differences detected side-to-side comparison.
Functional injury scale	15.44% self rated deficit	0% self rated deficit

*Pain with test

+Hamstring Length: measured in supine, starting position at 90° hip and knee flexion.³ Normal is < 30° loss of knee extension.⁴

¹Ober's Test: measurement taken from the medial femoral condyle to plinth

[~]Modified Thomas Test: measurement of knee flexion with hip parallel to the table

Conclusion:

The Graston Technique® provides a cost effective and efficient solution to treating soft tissue hip dysfunction. According to the Guide to Physical Therapy Practice,⁵ the expected number of visits per episode of care ranges from six to 24 visits during a single continuous episode of care (over the course of two to four months). Therefore, successfully treating hip dysfunction in six visits over two weeks reduces the expected timeframe for an episode of care.

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Using Social Media to Maximize Your Practice *Continued from page 1.*

what is available to you to maximize your teaching potential as a health care provider.

Blogging

Blogs are short articles that are typically around 250 words in length. Individuals use blogs to share information with their friends about their recent experiences; business owners write blogs to update potential customers about their company; and information experts write blogs to educate people.

Blogs are hosted on personal or business Web sites for interested readers to follow either on the site, via an RSS feed or by the blog being sent to their email accounts. RSS stands for Really Simple Syndication. Essentially, viewers' favorite blog subscriptions are picked up by an RSS reader on their computer or mobile device and are automatically updated for one-stop reading. Blogs are a great way for keen patients to receive your health updates.

Twitter



This social and business networking site is all the rage right now. Whether you are a 13-year-old girl and want to find out what your celebrity crush is up to on a regular basis; or you are an entrepreneur trying to get the word out about your company; or you are a road cyclist keen to know what Lance Armstrong fills his days with, Twitter is the "it" thing!

A "tweet" is simply a mini-blog: only 140 characters in length. The power of reach via Twitter is exponential. Patients follow your Twitter page which exposes your "tweets" to their friends and the viral feature of this tool continues. This is the ultimate referral system. Although you have to spend a significant amount of time on Twitter for your "tweets" to convert to business, it is a great way to:

- Update patients on news about your clinic or on the findings of a recent study
- Network with other health care practitioners in your community or around the world on a specific topic
- Provide your patients with a platform to share their testimonials, injury experiences, training tips and positive comments



Facebook

As health care professionals, Facebook can be a dangerous toy. However, if used

wisely, this can be another information-sharing venue. There are two types of Facebook accounts: personal and business.

Personal accounts can be "dodgy," especially if you use your name as your company name. The reason for this is that on Facebook, you can "tag" photos with someone's name. This means that if there are any "unprofessional" photos of you floating online in which a friend has "tagged" you, all of your "friends" can view them! This may not be optimal as a professional. You may also want to think twice about family photos being exposed to particular patients.

Business accounts are great for personal security, but are more limited in regards to landing "fans." Personal accounts allow easy two-way communication with "friends" and the ability to expand your friend network is significantly better. In these two different types of accounts, "friends" and "fans" essentially amount to the same thing: people who are interested in what you have to offer.

Both present a fantastic stage from which to educate patients, build professional relationships and learn personally.

LinkedIn



LinkedIn can be used to meet colleagues, share information and even solicit employees or business partners.

If you and I became contacts on LinkedIn and you were "connected" to Bill Gates, I could request that you invite Bill Gates to become a contact of mine. It is that easy to unite with someone who could be helpful to you as a health care practitioner, an entrepreneur or as a referral source.

Points to Consider

- Providing patient education outside of the clinic can lighten your teaching load inside the clinic.
- Posting information on social media Web sites allows patients to easily communicate your health advice to people in their lives: simple referrals.
- Sharing clinical and research information online with other health care practitioners produces superior clinicians. We are all playing for the same team, let's work together.
- Social media is not hard to figure out; don't be intimidated!

CASE REPORT**Post-Surgical Knee Arthrofibrosis and Quadriceps Insufficiency**

By Douglass W. Black, PT, DPT, SCS, LAT, ATC, Duke Sports Medicine Physical Therapy

Background: Anterior soft tissue “exaggerated pathologic fibrous hyperplasia” is described as a cause of post-operative knee stiffness and quadriceps insufficiency. [1, 2] Myers suggests that such fascial restrictions around the knee and anterior thigh are not local entities, but follow the myofascial superficial front line.[3] A 37-year-old male presented with range of motion (ROM) limitations and quadriceps weakness after left patellar tendon repair with augmentation. The patient had undergone more than two months of post-operative physical therapy treatment at another clinic and displayed knee flexion of less than 95° and a 22° quadriceps lag. He was referred to our clinic for incorporation of the Graston Technique® to mitigate his deficiencies.

Approach: GT along the superficial front line was incorporated as a key component of rehabilitation with emphasis of the distal rectus femoris musculotendinous junction and peripatellar soft tissue structures. Additionally, GT instruments were used to assist in manual patellar mobilization. Therapeutic techniques to promote knee ROM and enhance volitional muscle activation were used only after manual treatment during his weekly visits.

Results: In less than a month, the patient had 123° of knee flexion and a 3° quadriceps lag. Gait was also improved from partial weight bearing with two axillary crutches to full weight bearing with no assistive device and normalized level surface gait pattern.

Conclusions: Addition of the Graston Technique® enhanced traditional physical therapy to reduce soft tissue restrictions and promote functional ROM and quadriceps activity in a patient with patellar tendon repair with augmentation. Patients whose patellar mobility and knee range of motion is limited after orthopedic surgery may benefit from GT to resolve any fascial restrictions. Additionally, this case result advances the question of whether soft tissue mobilization along myofascial meridians may help prevent soft tissue ROM and strength inhibition after knee surgery.

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Perspective from a GT Instructor: First in a Series**GT Certification and Its Benefits: What’s the Advantage?**

By Jackie Shakar, PT, MS, AT

After 26 hours of training, you’re done, right? Not quite. In fact, not close.

You have taken M1 and the basics. And with M2—the certification process for GT—you have addressed advanced problem solving and clinical decision-making. What more can there be?

The answer is GT has much, much more to offer. And since you already have paid for them, I urge you to take advantage of the many benefits, including;

- **Ongoing support** to answer your questions from the well-established team of GT instructors. I encourage you to take advantage of this support by emailing your questions to Dr. Richard E. Vincent, GT’s Clinical Director, as they arise from your clinical

practice. Dick will forward your question to the GT team of instructors and we will respond with our thoughts and suggestions;

- **The EDGE**, the quarterly newsletter, which highlights GT practice concepts and advancements;

- **Make Sure Your Clinic/Practice is Listed on the GT Web site in the “Locate a Provider” section.**

This is a great way to advertise that your practice offers GT. (Take a look at the site to make sure your Web site is listed. If not, send an email with your Web site URL to info@grastontechnique.com.)

Editor’s Note: The next issue of *The EDGE* will feature Shakar’s thoughts on GT clinical work and research. This series is a result of questions she frequently is asked by clinicians during a GT training.

Bruising: Screen Patients to Minimize After-Treatment Effects

By Harry H. Ho, DC, DACBSP, San Jose, CA

A GT clinician has asked, “My patients appear to be bruising from Graston Technique® treatment. Am I treating too hard? Too deep? What do you suggest?”

Extra caution should be exercised before using GT on patients because bruising occurs more frequently in some people. Thus, it is very important to screen patients before applying GT. Consider the following:



Age: Blood vessels become more fragile as we age and bruising may occur, even without prior injury, in the elderly.

Age: Blood vessels become more fragile as we age and bruising may occur, even without prior injury, in the elderly.

Patients with a medical disorder, such as those with leukemia or vitamin C and K deficiencies, can result in alarmingly frequent bruising.

Patients with type-O blood, tend to bruise most easily (those with type-A blood typically bruise least), because of the makeup of the blood cells.

Patients with high blood pressure, which causes more blood to seep out of the broken vessel, are at risk.

Patients with diabetes normally have fragile skin and blood vessels, thus can be bruised easily.

Patients with inherited clotting problems, such as in hemophilia or acquired clotting problems, found in patients with liver diseases like cirrhosis, can develop extensive bruising.

Patients who take herbs, such as ginkgo biloba and Saint John’s wort, are known to reduce coagulation, putting them at risk of bruising.

Patients who use NSAIDs, including ibuprofen, Advil, Nuprin, naproxen, as well as medications, such as aspirin, may bruise more easily.

Patients who take blood thinners, such as warfarin (Coumadin), prescribed specifically to prevent clotting for those who have had blood clots in their legs or heart, can result in particularly severe bruising, especially if the level of the medication is high. Cortisone medications, such as prednisone, promote bruising by

increasing the fragility of the tiny blood vessels in the skin.

Patients with fair or light skin are prone to bruise more readily. Minor bruises may be easily recognized by their characteristic blue or purple appearance in the days following the injury.

Boney or venous areas, where skin may be fragile, may bruise easily.

If all of the screening conditions above are ruled out and your patients are still bruised, you probably went a little deep and hard with your patients. I recommend that you start treatment lightly. If you see any petechiae (tiny red dots) appear on your patient’s skin, that is a sign to stop GT treatment. To avoid any surprise or concern, always inform your patients about the potential of bruising, to avoid any surprise or concern.

From my personal experience and observation with bruising, it follows a predictable pattern and is possible to tell by looking at a bruise how old it is. When it first appears, a bruise will be reddish looking, reflecting the color of the blood in the skin. By 1-2 days, the reddish iron from the blood undergoes a change and the bruise will appear blue or purple. By day 6, the color changes to green and at day 8-9, the bruise will appear yellowish-brown. In general, the body will repair the bruised area in 2-3 weeks, after which the skin will return to normal.

Steps to Take After Treatment

There are things that you can do to minimize bruising after GT treatment. First, apply ice or a cold compress. The cold reduces the blood flow to the area and therefore limits hemorrhaging into the skin and reduces the size of the bruise. The cold also decreases the inflammation in the treated area and limits swelling in this way as well. If possible, elevate the bruised area above the level of the heart. The lower an extremity is below the heart, the more blood will flow to the area and increase the bleeding and swelling. Kinesio taping can help to reduce the bruises by applying the fan shaped tape directly over the bruise to increase circulation and facilitate lymphatic flow. The results are normally seen within 12 hours of application.

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Use Care When Boarding a Plane with GT Instruments

Clinicians taking or attempting to take GT instruments on airplanes, while dealing with security issues, have met with varying degrees of success since September 11, 2001. The following tips are used by Ted Forcum, DC, Beaverton, OR, who has traveled with his instruments on more than 200 domestic and international flights for the PGA Tour, lectures and other sporting events.



Carry-On vs. Checked Bags

If you are not packing your GT instruments in your checked baggage and plan to carry the instruments onboard in a carry-on, take GT2 through GT6 only. GT1 appears to be outside the TSA allowable size. Forcum advises GT1 should be placed in your checked baggage.

Advise Security Prior to Screening

Upon going through screening, GT instruments should be placed on a separate tray, along with your professional credentials/business card. Explain to the TSA personnel that your medical instruments have no sharp edges. (Taking them out of your carry-on luggage prevents screeners from physically going through your luggage and swabbing for explosives which can save time and inconvenience.)

Save \$30 or \$50 on Selected M2 Trainings

Now through December 31, 2009, save \$30 on the 8-hour course (OT and CHTs only) or \$50 on the 14-hour course at the locations listed below. [Click here](#) to register and pay by credit card. Use Promo Code **GTM209** for the 14-hour course and **GTM2809** for the 8-hour course. Offer applies only to the following M2 dates and locations:

Jan 30-31	Folsom, CA*
Feb 20-21	Austin, TX
Feb 27-28	Las Vegas, NV
March 27-28	Charlotte, NC
April 10-11	Newark, NJ
April 17-18	Minneapolis, MN
April 24-25	Lombard, IL

Continuing Education Credits where applicable.
*No Chiropractic CE credits available at this site.

Info Sheet

Include a copy of a laminated flier explaining Graston Technique®. Provide an additional non-laminated copy of the flier to TSA at each juncture of the trip where the instruments must pass security. This has been a great marketing tip. According to Forcum, he has treated several TSA agents as a result of educating the TSA staff.

Be Prepared

Bring a self-addressed UPS or FedEx envelope in case you are not allowed to take the instruments through security, or be prepared to place them in check-on baggage. In case of theft or loss, instruments should be insured. "I had to ship GT1 when I unwittingly forgot I had it on my carry-on," Forcum said.

Preferred Provider Section Launched

Since November 5, more than 225 GT Preferred Providers have accessed the site on grastontechnique.com to view case reports, research and past editions of *The EDGE*. Users have also downloaded clinical forms and marketing materials including logos and photos.

As a Preferred Provider, your annual fee of \$75 gives you many benefits including access to the Preferred Provider Section. If you have questions about the section, contact us: info@grastontechnique.com

Bruising: Screen Patients

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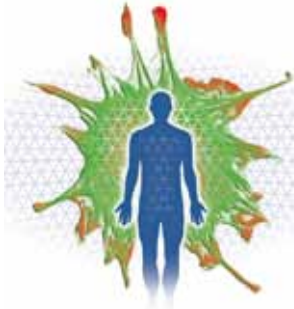
I would recommend 400-800mg vitamin C + E and 400-800 mg flavonoids for a couple weeks to reduce bruising. Flavonoids are often recommended along with vitamin C. They are vitamin-like substances that can help strengthen capillaries and therefore may also reduce/prevent bruising. Flavonoids may also increase the effectiveness of vitamin C; citrus flavonoids, in particular, improve the absorption of vitamin C.

Many others may recommend applying traumeel cream over the bruise areas or taking oral Arnica 30C soon after the injury, and continue until the bruise has healed. It works by stimulating the white blood cells that process congested blood, and by dispersing trapped fluids from joints, muscles and bruised tissue, thereby, decreasing discoloration and inflammation.

Research Congress Features Clinical Demonstrations: Includes GT

By Warren Hammer, DC, MS, Norwalk, Connecticut

Editor's Note: Dr. Warren Hammer, with a clinical presentation on Graston Technique®, was among those invited to present on “Tool Assisted Manual Therapies” at the Second International Fascia Research Congress in The Netherlands this past October. The event, attended by more than 600 scientists and practitioners, was conducted at Vrije University in Amsterdam.



The following are some of his observations and “clinical pearls” for readers of *The EDGE*.

The International Fascial Research Congress, which focused on research and poster presentation at its inaugural event in 2007, this year allocated significant programming to clinical-based modalities. Among the clinical demonstrations to which attendees were exposed were Graston Technique®, dry needling, acupuncture, functional fascia taping, Fascial Manipulation® and percussion/vibration.

The following represents a few of the clinical pearls I gathered:

- Within a muscle fiber, up to half of the total force generated by the muscle is transmitted to surrounding connective tissues, rather than directly to the origin and insertion of the muscle fibers. Forces not only are transmitted to synergistic muscles, but also to antagonist muscles, which indicates that we must evaluate all of the surrounding tissue as well as the area of complaint.
- The deep fascia especially in the extremities require a deeper penetration in order to free up the restrictive area.
- There is increasing evidence that present in fascia, especially in the deep fascia, specific points called “Centers of Coordination and Centers of Fusion.” These points are painful to pressure and usually are at a distance from the painful area. They are often inflamed and causative. (Go to www.fascialmanipulation.com for more information.)

- Subjects with low back pain show less relative tissue motion across the perimuscular/muscular boundary than subjects without LBP.
- When comparing the ultrasound of lumbar connective tissue, subjects that had chronic or recurrent LBP pain for more than a year had 25% greater perimuscular connective tissue thickness and echogenicity than a group of subjects without LBP.
- GT results on tendinosis in the extremities may also apply to the lumbar area—where anatomically the dorsal aponeuroses of the thoracic fibers of longissimus and the thoracic fibers of iliocostalis lumborum form a wide sheet of parallel tendons known as the erector spinae aponeurosis. These tendons are similar to other tendinous areas such as the Achilles and supraspinatus, among others.
- Fascia could play an important role in coordination and proprioception and consequently, in the control of posture and complex movements.

For more information about the congress, go to www.fasciaresearch.com.