

moving in the right direction

Mechanical Diagnosis And Therapy™
of the spine and extremities

» Certified MDT Practitioners as Educators

Amy Fletcher, DPT, Dip. MDT

After achieving one professional goal, it has been my experience that most physical therapists quickly start thinking about what to do next. After completing the Diploma Program, I had illusions about newfound free time, but reality set in and I went back to work looking for my next challenge. Certified MDT practitioners are generally invested in the McKenzie Institute, so most of us will continue to put our energy toward further learning and contribution. We all have different talents and passions that enable us to contribute to our fields in different ways, so where to go next looks different for all of us.

My personal passion is teaching and I knew I wanted to do something more, but was not sure where to begin. I have been a clinical instructor (CI) for the physical therapy program in my area for several years and I have gradually and systematically refined my curriculum, and a large part of it focuses on assessment and treatment of the lumbar spine using MDT. By doing this, I have been able to clarify misconceptions, dispel myths, and essentially provide students a real understanding of the McKenzie Method, even if only one PT student at a time. Students have taken the information back to their faculty and stimulated interest there. As a result, I was invited to lecture on the McKenzie system to the third year PT students. That lecture has now been expanded for the upcoming class, and I am hopeful that I will be able to be more involved with the entry level academic physical therapy program, thereby influencing more future practitioners to pursue MDT certification.

An unexpected benefit of this process has been learning about what is being taught to students in the classroom and in their other clinicals. The good news: students are looking at some quality literature in their evidence based medicine courses. At the PT program in my area, students are learning about clinical prediction rules and Treatment Based Classification. They are learning about directional exercise and

centralization. Unfortunately, while it's exciting that the pathoanatomic paradigm is shifting in the schools, I still believe there is a key piece of history missing – MDT.

MDT practitioners possess a great knowledge base of the MDT literature as well as other literature including other classification systems. This is a great adjunct to what PT students are currently learning. We can discuss the similarities and differences between other systems and MDT. We can give students the “real story” about MDT. We can dispel myths, misunderstandings, and inaccuracies that may be inadvertently communicated to students and faculty alike. I hope that we can stimulate interest in McKenzie from the ground up, because with the current focus of academia, this will not happen if MDT practitioners do not get more involved. We are poised to improve the education of the students coming out of PT programs.

So if you are wondering what to do next, consider getting involved with PT students. By being a CI and guest lecturer, I have learned more about what is valued and taught in the entry level academic PT world. My education and training as a Diplomate has allowed me to develop a curriculum that is appreciated by students and program faculty, and has reconnected me to the academic PT world. Hopefully, the recognition of all systems and their research by academia will open the doors for discussion and open minds to the similarities. As a result, students, and slowly faculty, get the real MDT story.

It is important to keep the McKenzie Institute informed if you are affiliated with a school as a CI or lecturer, or if you plan to be in the future. They provide guidance and consistency between clinicians and a standard overview presentation for certified members.

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From the Editors...

The Americas region has two publications providing valuable information to support ongoing learning in MDT - our membership publication the *International Journal of MDT* (IJMDT) and this newsletter – *MDT Bulletin*.

With a marked decrease in submissions to sustain IJMDT, regrettably there will only be two editions published in 2011 – June and November. Earlier this year, our members were surveyed for a chance to comment on its future, and the results were mixed.

Resoundingly, members agree that the content is extremely valuable and are supportive of a continuation of some version of the IJMDT. Many of you commented on the benefits of continuing with MDT case studies, literature reviews, continued discussion of implementing MDT techniques, also gaining successful business/marketing advice. However, many were also supportive of moving to liaison with another relevant, peer-reviewed musculoskeletal journal as it would improve the exposure of MDT. If such collaboration with a different journal occurs, the *MDT Bulletin* would be the future of pure MDT topics; therefore, your input is important for our growth.

Other organizations appear to have more participation with their members sharing information. We should strive to match their success, and we seek to understand how we together can do this better within our community of MDT learners and educators.

Being in the clinic daily with patients, you are all educators and these rich experiences are prime fodder to share with your colleagues. As the IJMDT Editorial Board continues its investigation of its livelihood, we continue to welcome your thoughts and suggestions...and, of course, your submissions!

Directional Preference in the Sacroiliac Joint

Chris Chase, PT, Dip. MDT

Once you have sufficiently ruled out that the unilateral symptoms are not referred from the lumbar spine or hip, it is time to consider examining the SI Joint, especially if you find that three or more SI Joint provocative tests are positive (Laslett 2003). But how exactly do you assess the SI Joint when the provocative tests are positive? Luckily, you can rely on your MDT skills to develop a treatment plan to establish a diagnosis and guide your treatment.

Most SI Joint conditions will typically present as a derangement, in that the condition is rapidly changeable, ruling out either posture or dysfunction syndrome. These presentations are not impossible, just less likely. The typical presentation is sudden onset of pain, often as a result of some sort of trauma, more often being a young female than any other demographic. But as in any derangement, the history and presentation can be quite variable, including no apparent reason, for the symptoms to begin or even a longstanding chronic presentation. If based on your assessment your provisional classification is derangement, the next step, as in any derangement, is to establish the optimal direction and load to reduce the derangement.

The SI Joint rotates both anterior and posterior. Instead of relying on non-reliable palpations or non-reliable observations regarding leg lengths, pelvic obliquities or which ASIS or PSIS is higher, there is something familiar to MDT trained practitioners to help you establish a directional preference. **Repetitive motion examination is the key.** It is good to first find a functional baseline that is painful. Step downs, single leg squats, one leg hopping or even sometimes simple sit to stand can be your baseline, but listen to your patient and choose something that they can easily reproduce in the clinic, when possible. If there is no functional baseline reproducible, but one of the SI provocative tests is especially positive, then you can use that particular provocative test as a baseline.

After determining what baseline(s) you are going to use, you start by rotating the painful SI Joint either posterior or anterior. For those of you who attended the MDT Conference of the Americas in 2010, there were great examples in the SI Joint workshop of various positions you can utilize to perform these rotations given by MI Senior Instructor, Robert

Medcalf, PT, Dip. MDT. Included in the examples were unloaded, partial loading, loaded, and examples of rotations with clinician overpressure and mobilization. For the sake of this discussion, we will limit the examples, but know there are a myriad of ways to increase force, adjust the load, and apply mobilization to the SI Joint. One of the conclusions that you may find is if the SI Joint has a directional preference, then there may be a directional vulnerability in the opposite direction. At times, you learn more by making the condition worse with one direction and then find the opposite movement to be an effective reduction direction.

To test the effect of posterior rotation, begin with unilateral flexion of the LE (single knee to chest) of the affected SI Joint. You can perform this either in standing (loaded), lunge on chair (partial loading) or supine (unloaded.) It is important to note, many repetitions may be necessary to elicit a symptomatic change or change to a functional baseline. To test anterior rotation loaded, you perform a lunge with the affected leg behind your trunk. Anterior rotation unloaded, is performed by instructing the patient in Extension in Lying with the affected leg on the treatment table and the opposite leg off the table. Once again, many repetitions may be necessary to change your symptoms or functional baseline. If one direction is increasing pain and the opposite is reducing, you very well are on your way to establishing a treatment directional preference. It is very common to need to add force in the form of overpressure or mobilizing the SI Joint to fully reduce the symptoms.

While there has not been as much material either researched or published on the treatment of the SI Joint using MDT, there are patients that need SI Joint focused treatment to effectively treat their condition. Be confident that if you use repeated movements to confirm a classification of a SI Joint diagnosis and then provide MDT treatment guided by your knowledge of directional preference and appropriate force application, you can provide highly effective treatment to your patients with Sacroiliac Joint problems.

Reference

Laslett M, Young S, Aprill C, McDonald B (2003). Diagnosing painful sacroiliac joints: A validity study of a McKenzie Evaluation and sacroiliac provocation tests. *Australian Journal of Physiotherapy*, 49, pp 89-97.

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►► MDT for the SI Joint: A Case Report

Kim Greene, PT, Dip. MDT and Chris Chase, PT, Dip. MDT

Recently, a very interesting patient was referred to our clinic from a MDT colleague who couldn't fully reduce a patient with a difficult lumbar derangement. Without getting into a tremendous amount of detail about her lumbar condition, the patient responded very well to treatment and once Recovery of Function was initiated (and had been performed for over two weeks), she was recommended to return to the gym for an easy work out to assess her response to aerobic activity, something she had been avoiding for over three months secondary to pain. What happened next challenged us as MDT practitioners to fully utilize our MDT assessment skills to provide effective treatment.

After one session on the elliptical machine, our patient reported a sharp pain in her left upper buttock region. Lumbar flexion and extension movements did not affect this pain and right rotation in flexion provided a mild decrease. She was instructed to perform self rotation in flexion and return in 48 hours. She returned significantly worse, as her pain was now constant and any weight-bearing activities, especially squatting, increased her pain.

After again thoroughly assessing her back and her hip and not finding any movement that reduced her symptoms, it was decided to perform the SI Joint provocative tests. Because she was in a great deal of discomfort to begin with, it was difficult to tell how positive these tests were as none were exquisitely painful except for the thigh thrust. There was an increase of her pain with some of the tests, so it was determined to assess if an SI Joint derangement could be the source of her pain.

The first movement test was weight bearing posterior rotation to the painful side of her pelvis. She was instructed to stand against the wall and perform a single knee to chest movement of her left lower extremity. This resulted in significant movement loss that was painful. On the second repetition, there was an audible pop. It only happened one time and she thought her pain was a bit less, although her motion loss did not change significantly. She performed a full set of about 15 repetitions and reported the stiffness decreased mildly. After performing one set, her squat was a bit better and she reported about a 50% reduction in her pain level. After two more sets of this movement, she didn't feel any better, still only reporting a 50% reduction of symptoms and some end range stiffness. What to do next?

In the lumbar spine, an MDT trained clinician would add overpressure to try to fully reduce the symptoms when treating a derangement. She was therefore instructed to lie in right side-lying and posterior SI Joint Mobilization was applied to her left pelvis. While a bit uncomfortable at first, her pain decreased and when she stood up, she reported a full abolishment of her pain. Her squat was no longer painful and weight-bearing was much more comfortable. Her Thigh Thrust provocative test was much improved and any stiffness she had with loaded posterior rotation was now gone. She was sent home with instructions on performing SI Joint loaded posterior rotations every two hours and more often if her pain returned.

She returned with much less pain, but prolonged weight-bearing activities still produced discomfort in her same pain region. After three sessions of SI Joint focused therapy, including repeating the mobilization that abolished her pain, her symptoms remained better. She was then recommended to try the elliptical machine again. This time there was no pain, and over the next few weeks, she added full gym activities. She is continuing to perform a self treatment prophylactic program for both her lumbar spine and her left SI Joint and has been discharged at this time.

Often, MDT trained clinicians are quick to discount the diagnosis of SI Joint problems when they are referred with that diagnosis. But this patient clearly needed SI Joint specific treatment for a full recovery. Her initial diagnosis had been annular tear, which had been confirmed by MRI, but using our knowledge of MDT helped us focus her treatment on the appropriate strategy to maximize her recovery.



Loaded Posterior Rotation of the Left SIJ



Posterior Rotation Mobilization of the Left SIJ

▶▶ Calling All Ob/Gyns

Kim Greene, PT, Dip. MDT

Part of my job description as an MDT Diploma Physical Therapist for St. David's Spine and Sports is to educate physicians that could benefit from our services. I'll be presenting an in-service for a group of OB/Gyns to convince them that MDT is a great assessment tool for pregnant or post-partum women with low back, sacral, and neck pain.

Unfortunately, most pregnant women feel that they just have to "live with the pain" until the birth of their child. Furthermore, post-partum women hope their symptoms improve as their kids get older, while they play a waiting game with no significant improvement. In both scenarios, these patients can benefit significantly from a mechanical evaluation and MDT treatment.

Many of these women respond very quickly to MDT with patient generated forces. Very rarely is a pregnant woman treated for more than six visits. I highly emphasize this point with the referral sources as many pregnant and post-partum women have little time for therapy. Most pregnant women are diagnosed as simple derangements that respond to repeated movement testing or static positions. Providing these patients with a lumbar roll and postural advice can resolve the majority of their symptoms, and for this reason, I usually try to demonstrate posture correction with the physician, if time permits.

Don't be afraid to lay these patients prone as long as the patient is comfortable; most physicians will realize that this position isn't harmful to the mother or baby. It is important that the doctors understand that we do move these patients, so be sure to mention that movement will be included in the assessment process, as some pregnant women are to avoid aggressive exercise. Try to educate the doctors on some of the

common presentations that are observed, then they will be more likely to refer if they recognize it in their clinic. The following examples are commonly observed with pregnant patients/new moms:

1. LBP or sciatica commenced in second or third trimester of pregnancy: Worse with sitting/better with movement with obstruction to rising. Can be secondary to ligamentous laxity or inactivity.
2. SIJ pain due to complicated pregnancy or trauma. If patient reports back or pelvic pain after a complicated surgery, emphasize the importance of early referral to prevent chronic problems. Educate the need for a repeated movement exam with trauma rather than general exercise.
3. Post-partum: cervical pain with breast feeding. Lots of emphasis on activity modification and reductive exercise before and after breast feeding.
4. Post-partum: repetitive lifting of young kids or carrying kids on one hip. Many moms don't even recognize the need to alternate hips and perform reductive exercise before and after painful activity.

If you can present a case that the physician can relate to, then the physician will recognize that you have experience in treating this patient population. Furthermore, having a female in the clinic to assess this patient population is usually appreciated by both the physician and patient. Always emphasize the importance of screening for red flags and highlighting the need for referral back to the physician if you don't see improvement in a few visits. This is a population that can respond quickly to MDT and there is no reason why this patient population has to continue to suffer, often with unnecessary pain.



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