

" My preparation for the Rat Race - A Deep Tissue Massage Treatment "



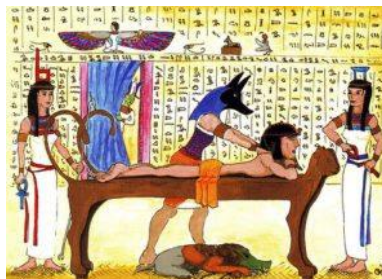
By Gareth Milner

Director of Osteopathic Solutions Ltd

Deep Tissue Massage is a massage technique that's mainly used to treat musculoskeletal issues, such as strains and sports injuries. It involves applying sustained pressure using slow, deep strokes to target the inner layers of your muscles and connective tissues.



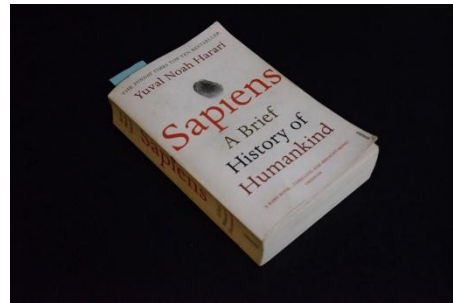
Today (26th August 2019), I am 3 weeks out from competing in the Rat Race Coast to Coast for the 2nd time (my 2017 Rat Race finish line photo above). But this time I am completing it (well hoping to) in 1 day. 105 miles made up of running, cycling (on and off road) and kayaking. Training has been grueling so far, made up of half marathons (in 33 degrees of humid heat), drop set weights exercises for my legs, swimming and heavy weight training for the upper body (especially for the kayaking). This all takes its toll on one's musculoskeletal system, creating overly 'tight' muscles, swelling in tendons, scar tissue formation, resulting in musculoskeletal pain and dysfunction. Deep tissue massage is an essential component of my preparation.



Historians believe that the ancient Egyptians were the first to practice Deep Tissue Massage, which will be referred from now on in this blog as DTM. I remember reading as a child a history book with cartoons of Romans performing massage treatments.

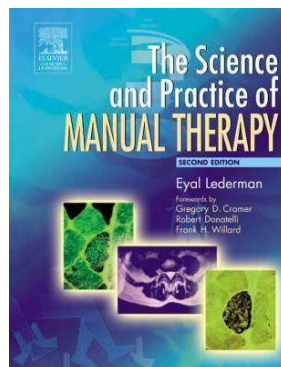


As long as us Homo Sapiens* have been around, standing up on 2 feet with the resultant biomechanical challenges this creates to the spine (especially to the lower back), 'touch' therapy innately would have been used, as is practised by our closest species, Chimpanzees.



***My current read**

Most massage therapies are relaxing for the mind and body. But make no mistake DTM is far from relaxing. It is more like torture, but torture with an end game therapeutic benefit. The aims of the DTM Therapist is to manually treat the soft tissues, therapeutically affecting or 'manipulating' the soft tissues' neurophysiology and biomechanics (muscles, ligaments and tendons primarily). Put simply, the DTM Therapist puts the soft tissues in a mechanical and neurological state (with reference to 'The Science & Practice of Manual Therapy shown below) that best helps them to maximise their function i.e. maximum muscle power and endurance; and muscle, ligament and tendon flexibility. Essential when high level sport or triathlons are the sports person's goal.



My Early Interest in Manual/ Massage Therapy

I was introduced to massage by my Mother Carol. She had a massage book that I referred to well before I knew what an Osteopath was. My first application of therapeutic hands was providing head massages for her, and for my brother Matthew during his medical exam study. It was during this time in the late 90s that I started to be fascinated by our musculoskeletal system through the sport of weight training/ bodybuilding. For those of you who are also interested in our musculoskeletal system a visit to see Gunther von Hagens' (controversial) exhibitions are a must!

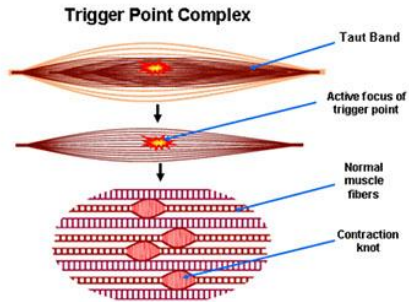


Osteopathy Degree

During the 1st year of my Osteopathy degree, I learnt many as we called them 'Soft Tissue Techniques' for all regions of the body. Essentially massage techniques. Working on the soft tissues during an Osteopathic treatment is essential, especially when preparing an area that you want to thrust manipulate (the techniques that have an audible 'CRACK' sound).



During the 1st year we learnt techniques that worked across muscle fibres (shown above right); that worked longitudinally down (or up) the muscle fibres; trigger pointing involving direct pressure (using the thumbs or elbow) on a 'trigger point' (shown above left and below); and more subtle techniques called Inhibition which gently released acute muscle spasms.



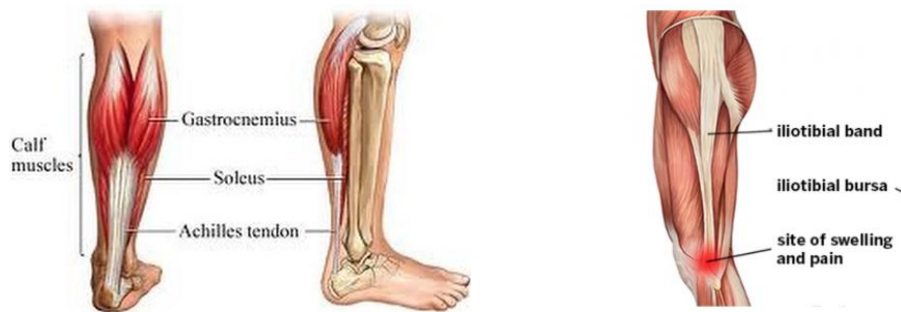
My DTM Treatment

My DTM Therapist was Gonzalo Bernat (shown below). Over the years I have had many massage treatments, some more relaxing, some a mixture of relaxing and strong, and some brutal (but therapeutically effective) and this treatment was brutal, akin to torture (I really do feel for the England Rugby players this 2019 World Cup who will have daily DTM treatments). Gonzalo's DTM treatment was exceptional.



Gonzalo Bernat

I consulted Gonzalo as I have been getting cramping pain in my left calf muscle during the long runs in prep for the Rat Race Coast to Coast. I have been seeing another massage therapist (who is more holistic but still no less excellent) but felt I needed something stronger, especially for my left calf. I needed it 'annihilated' (that well known clinical term 😊).

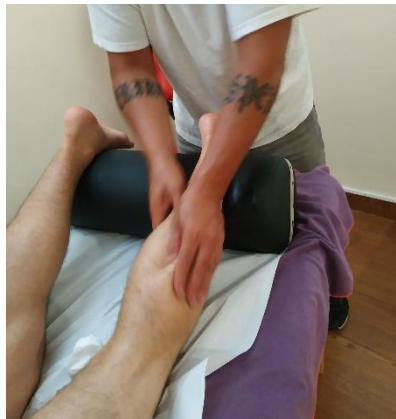


The consultation started with me informing Gonzalo of my problem areas in my legs (my left calf, left quadriceps and IT Bands – the tendon on the outer thigh) and my previous history of knee tendonitis.

Gonzalo started with more superficial manual kneading of my left calf muscles, made up of the gastrocnemius and soleus. When the gastrocnemius and soleus muscles contract, they plantar flex the foot, the movement shown below.

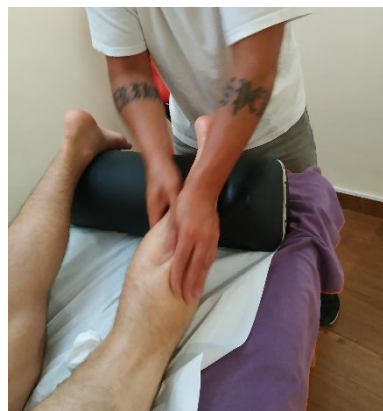


After the superficial massage, this was followed by deep longitudinal work with his thumbs into the muscle bellies and along the achilles tendon. Just what the muscles needed but it was horrible (I normally start laughing when it hurts). My left calf has been chronic for a long time (over 10 years) mainly due to inherited flat foot biomechanics.

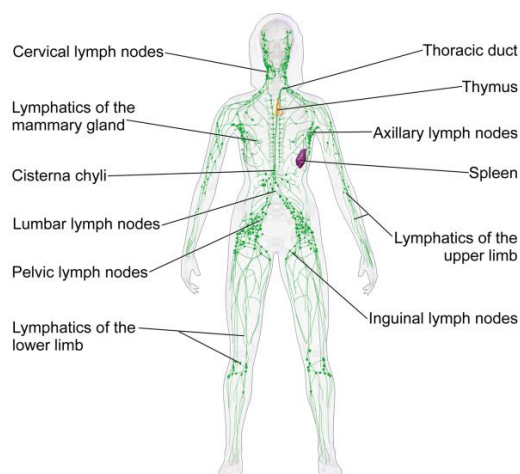


As with all manual techniques, application of DTM would stimulate increased blood flow into the muscle which with the direct pressure across the scar tissue would help construct functional muscle tissue and not dysfunctional scar tissue. DTM also has a direct effect on muscle contraction, releasing abnormal muscle tone.

DTM is not only hard on the patient, it is hard on the practitioner, especially their thumb joints. With this in mind, Gonzalo used this useful massage aid (shown below left) which allowed him to use his arms avoiding application of his thumbs to the muscle (i.e. giving them a break).



DTM also aids lymphatic drainage. Shown above right, Gonzalo used the black roll to raise my foot up which would allow gravity to drain my calf of excess lymphatic fluid (see below 'lymphatics of the lower limb').

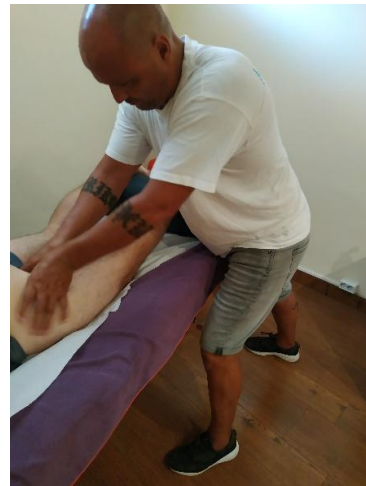
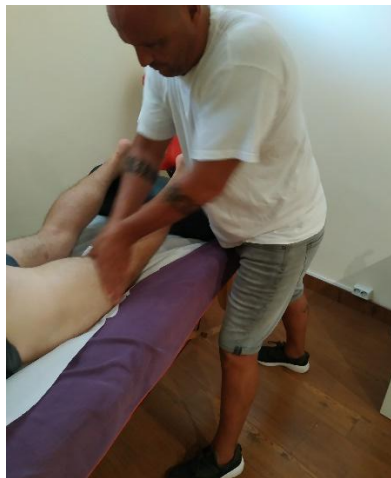


Lymphatic System

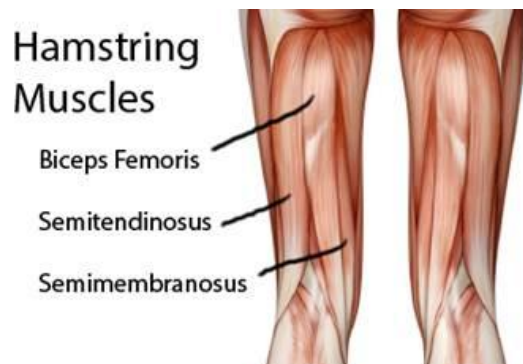
Putting a longitudinal stretch is very effective to release muscle tightness (as seen on a football pitch when a player suffers leg cramp). Gonzalo incorporated this very well into the treatment. Firstly, the hands on direct muscle work, followed by stretching. Applying the stretching before the muscle work would not have been as effective.



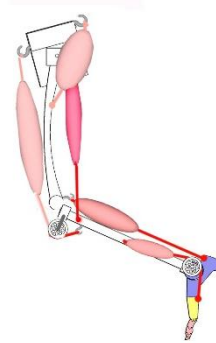
As shown above, Gonzalo applies a stretch to my left calf by using his shoulder as the applicator, using his bodyweight and a forward bend of his spine to apply the force to stretch the calf muscle (looking at this ergonomically, this is not ideal for his body). He certainly was strong as this was an amazing stretch to my calf, something stretches in the gym just wouldn't get near to in their effectiveness.



Gonzalo then worked up my leg into the hamstrings with sweeping hand movements (as shown above), doubling up his contact using both hands and palms as the applicators to the muscles. This would help to drain the leg from excess lymphatic fluid.



The Hamstrings consist of the Semimembranosus muscle, the Semitendinosus muscle and the Biceps Femoris. Their primary function is to flex the knee joint and extend the thigh at the hip joint. My hamstrings on my left leg were tight but with no contracture (shortening) and no trigger points, so a slightly more pleasurable part of the DTM.



Hamstrings flexing the Knee



Hamstrings extending the Hip during running

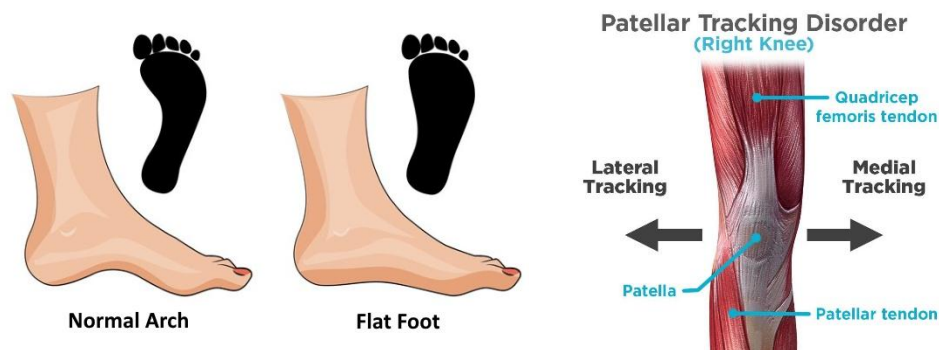
As shown below, Gonzalo used a small towel aiding grasping of the hamstring muscle (this time on my right leg). This essentially pulled the muscle away from the bone (not as bad as it sounds!) stretching the connective tissues (the fascia) surrounding the muscle. Releasing hamstring tightness will have a beneficial biomechanical effect locally on the lower back, hip, knee, ankle and foot as the human body is a tensegrity structure. For a simplified description of a tensegrity structure view this YouTube clip www.youtube.com/watch?v=DWXA2GhRA6U



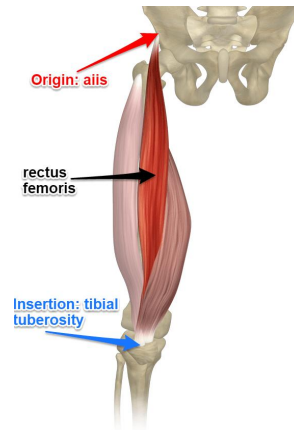
One of my muscular problem areas is my left quadriceps (front of thigh) muscles. No matter how much stretching and foam rolling I do to these muscles they just don't seem to loosen off. Here comes the pain! Using his thumbs Gonzalo performed trigger point DTM into my quadriceps which brought on the laughs (better than crying!).



This quadricep massage (or in this case pummeling) directly affects the knee biomechanics, allowing for a more normal tracking of the patella (knee cap). My patella lateral tracking issues start in my rearfoot biomechanics due to an inherited flat feet (if you too have flat feet and they are causing you musculoskeletal pain, email me at garethmilner@osteopathicsolutions.co.uk and I will email you a list of things you can do to help raise that foot arch and have less leg pain).

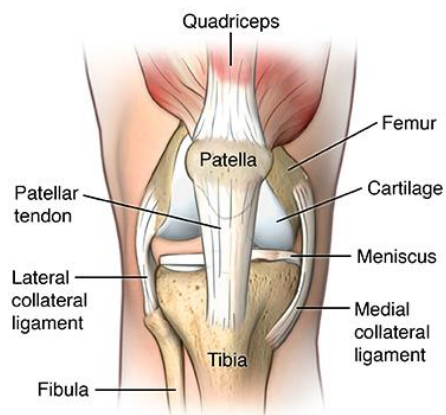


The laughing from me continued, now Gonzalo attacked the origin of my Rectus Femoris muscle shown below on the photo with the application of his right thumb onto the tendon, pointed to by the red arrow on the image below.



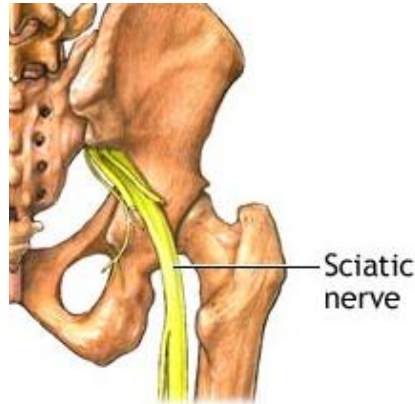
This was another difference in his DTM compared to what I have experienced before. No therapist has ever directly worked on this tendon origin (myself included when I was a practising Osteopath treating patients).

The results of my left flat foot and my shortened quadriceps is an infrapatellar tendonitis (below right image references it as Patellar tendon). This has been 'grumbly' for many years (again, please excuse the non-clinical term). If I was a professional sports player (golf would be my preference) with access to DTM, Osteopathy, all the time to rehab, the best nutrition etc. this would be fixed pretty quickly, but in the real world getting rid of injuries like this is difficult.

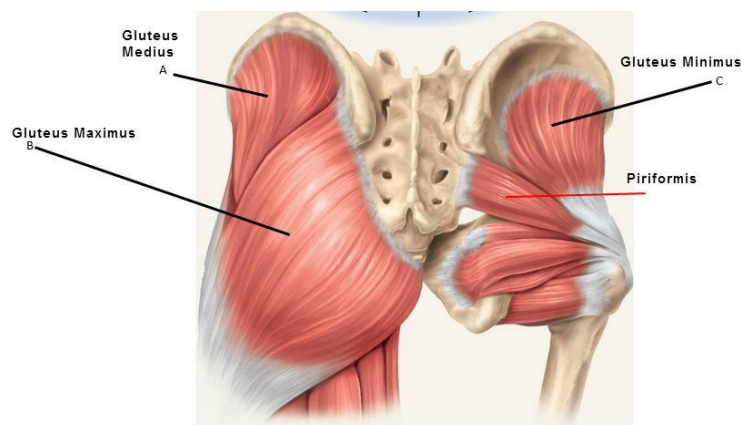
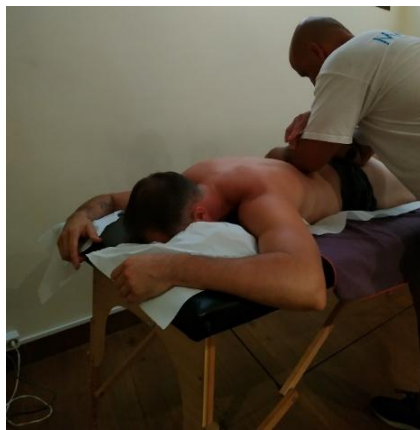


DTM (as in Osteopathic soft tissue treatment) isn't just about massaging muscles. Direct work on tendons is therapeutically beneficial in aiding reduction in pain and improved biomechanical function.

Gonzalo worked on both my legs at my request. Shown in the below left photo, he is stretching my right leg hamstring muscles and boy was this uncomfortable, but again therapeutic in its effects of reducing abnormal muscle tone/ contraction and lengthening my hamstrings, improving the biomechanics of my lower back, hips, knees, feet and ankles (I say plural as we are a tensegrity structure – this was highlighted to me after the treatment as even though he applied DTM to my legs, I could move my jaw joints more!). This technique also stretched my sciatic nerve which I can tell you told me it was being stretched.



Last but not least came my glutes. The gluteus maximus muscle is the true squat lifting muscle in manual handling. Its action is to extend the hip joint and it extends the hip powerfully as it is the biggest muscle of the body. In the gym people really do forget about training the glutes. I commonly see big shoulders, arms, pecs, quads but tiny glutes and calf muscles. Gonzalo is one of very few DTM Therapists I have consulted that worked directly on the glutes (basically your bum).



As I am doing a lot of running in prep for the Rat Race Coast to Coast, his work on my glutes was essential so these muscles can work at their most effective. Essential when you are going across 105 miles of Scottish highlands in 1 day!

Gonzalo ended the treatment with something different. 3 drops of Olbas oil into my palms with some self applied to my nostrils and the rest self rubbed into my forehead followed by 3 deep breaths in. A really nice end to what was a great DTM, thank you Gonzalo!



When to have a DTM Treatment & When to have an Osteopathic Treatment

I will keep this very brief and simple. If you are training for an event like I am then it is simply a necessity to have regular DTM, say each week why you are heavily training.

With the strains of normal life e.g. working at a desk, long periods of driving, emotional stress, accidents etc. I would recommend a DTM every month.

When see an Osteopath instead of a DTM Therapist? Well I believe seeing both are essential for musculoskeletal health. If you have pain in part of your musculoskeletal system, it is either acutely painful or has been dragging on giving pain for far too long, then get to a Registered Osteopath as soon as possible. Please watch our YouTube video of myself performing an Osteopathic treatment for Emma Farrell on <https://youtu.be/E2pvOEYITLI>

If you are short of a budget to see both (fair enough, it does add up), then Osteopathy is your go to therapy for musculoskeletal health (apart from self 'therapising' with rehab exercises including stretching and pilates). As we treat holistically across our tensegrity structure (the human body), manually manipulating key dysfunctional biomechanical areas following Osteopathic diagnosis, this creates for a more longer lasting improvement in musculoskeletal structure and function.

If you liked reading this blog you will like '**Thank you Andrew Taylor Still - An Osteopathic Treatment by our Director Gareth Milner**' available to read via our Blog page.

Please also watch my YouTube video of 'My Rat Race 2019 – A Celebration of us Sapiens' Musculoskeletal System' on www.youtube.com/channel/UCH_C42lim74URI4NQboifvg (available November 2019).

Thanks for reading.