

" An Osteopathic Treatment for Neck Pain "

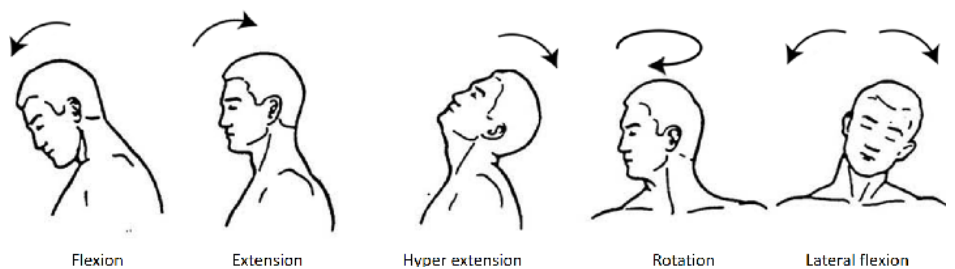
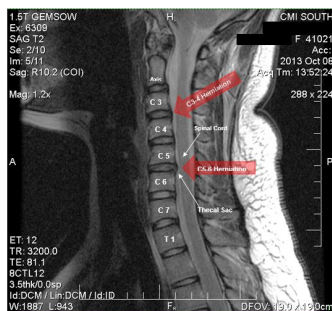


**Written by Gareth Milner BSc (Hons) Ost.
Director of Osteopathic Solutions Ltd**

Like all my Blog Posts titled " An Osteopathic Treatment for ... " the focus of the manual therapy techniques shown and discussed in each Blog is local to the area that hurts i.e. with this Blog the neck. However unlike traditional Physiotherapy interventions for musculoskeletal pain, Osteopathy is a holistic therapy that takes into account the whole of the patient, and with regards to our manual 'tools', the whole of the patient's musculoskeletal system.

For myself, neck pain is an emotional subject, as unfortunately at 24 years old I suffered the effects of a herniated cervical disc at C5/C6. As an Osteopath, patients' used to ask me "what has caused my injury" and in most cases there isn't one incident or cause, it is multi factorial and commonly over many years being cumulative in nature. With myself during my school life I was heavily into sports. You name it I did it including Judo, Golf, Rugby, Football, Cricket etc. I remember when my Mum (Carol) used to pick me up on Saturdays after 2 hours of Judo that walking to our Volvo that I felt as if I had played a test level rugby match. I also was passionate for Art, which involved hours of neck flexion (shown below) and use of my dominant right hand, over many years. I got into weight training during my teens and simply lifted way too heavy, way too early in my life. 4 years of a physically grueling Osteopathy degree followed (we were the guinea pigs for practising techniques on each other) added with an accident at 23 years old all added up to damaging my C5/C6 disc. At its worst at 27 years old I was offered surgery and declined. Today I live with neck issues every day but pain wise as long as I do regular exercise and simply try and enjoy my life (i.e. not get too stressed with what life throws at you), my neck is not a major problem.

Anyway, less of me and through this Blog Post you will find out what structures are involved with neck pain; reasons for causation; how Osteopaths treat the patient for neck pain and how yourself you can help reduce pain or even get rid of that 'pain in the neck' forever!

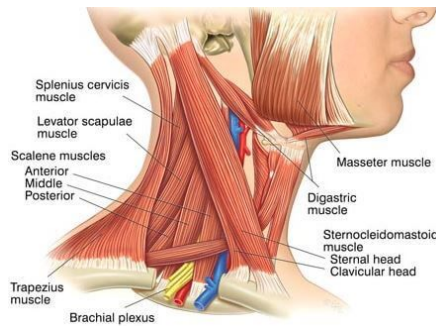
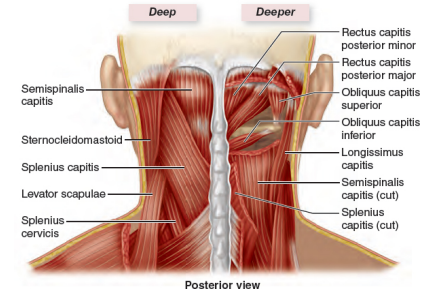


Let's first look at some basic anatomy of the neck. There are many muscles and we will look at some of the main groups. The one that most people have heard of is Trapezius (shown below left).

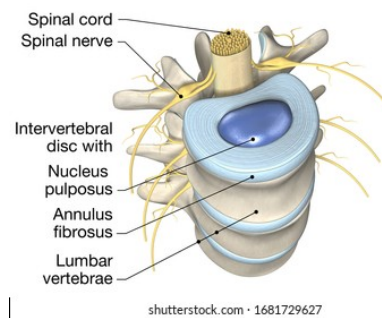
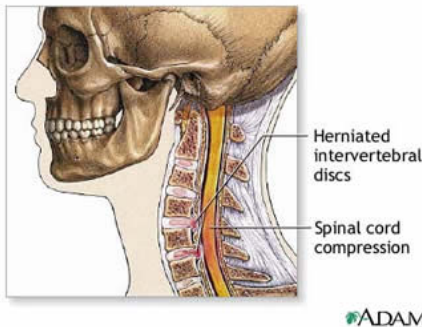


If you can feel sorry for one muscle in the body, then Trapezius I would shed a tear for. It has to do so much. 1. Support the head which weighs 3.62 to 5.44 kg, and as we know some people have bigger heads than others :-> 2. Stabilise the neck, upper and mid back and shoulder complex (including the shoulder blades). 3. Actively move the neck (in side bending, rotation and extension - refer to image at bottom of page 1) and actively move the shoulder blades to aid shoulder joint movement. No wonder it gets tired, full of toxins, shortened and injured. We'll come back to the 'Traps' as they are often called later in this Blog.

1st term Osteopathy degree (in 2000 for me) we had to learn all the spinal muscles from the base of the spine to the top. Their names, origins and insertion points, their nerve supply and the nerve's name, and the individual muscle's functions. Oh to have a young brain these days! Here to the right we have the deep and superficial neck muscles which are all involved in telling your brain that they are in spasm, or damaged, perceived as pain.



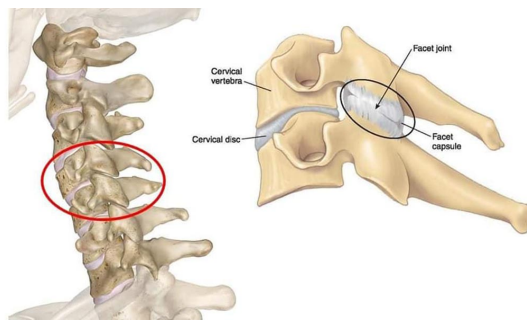
The last muscles we will look at are the muscles of the anterior throat, namely the Scalene and Sternocleidomastoid muscles (pictured to the left). The Scalenes are 3 muscles on either side of the front of the neck and connect the neck vertebrae (bones) to the upper ribs. The Scalenes are also involved in neck stability and mobility as well as being involved in forced inspiration e.g. like when going for a run. The Sternocleidomastoids (left and right) have similar functions to the Scalenes. These muscles are always involved with neck pain, either directly in the muscles themselves or indirectly by pulling the bony neck out of position affecting the posterior neck muscles and trapezius.



The intervertebral discs are made out of cartilage with a central viscous like core (nucleus pulposus). They are shock absorbers and allow movement between the vertebrae. When damaged the viscous core leaks posteriorly compressing the spinal cord and nerves. This is extremely painful leading to localised neck pain (which can be severe), referral to the shoulder and down the arm (or arms). Pins and needles can be felt in the fingers and hands as well as weakness of grip and arm muscles. This injury, a herniated disc is common (enough) between the ages of 35-45 years old.

A prolapsed neck disc is rare and is usually due to significant trauma like a Road Traffic Accident or a fall from a horse for example. We will look at medical methods, Osteopathic methods and Rehabilitation methods of making these injuries heal (to an extent as obviously significant damage has been done) and reduce the pain.

The final anatomy we will look at is the cervical (neck) joints or clinically called the 'Facet Joints'.



The neck joints guide the movement of the neck. The highest joint between the C1 and C2 bones allows for the majority of rotation (or twisting) of the neck. Overall the neck is incredibly mobile with large ranges of flexion (forward bending), extension (backward bending), side bending and rotation. As the joints between the C5 and C6 bones are functional pivots, they can soak up a lot of biomechanical strain with the disc and joints at this level being the most common part of the neck for degeneration. With regard to the joints, osteoarthritis is the degenerative

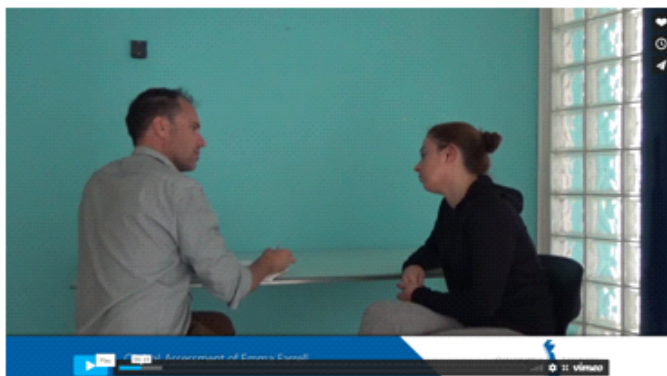
process regarding these structures. Osteoarthritis happens to us all and is just wear and tear of using our bodies. By 50 years old we will all have X-Ray visible signs of neck degeneration including loss of disc height and wear in the lower neck joints and loss of shock absorbing cartilage.

Right that's enough anatomical stuff, let's get on with why you decided to read this Blog Post, the Osteopathic Treatment for Neck Pain.

The images of my application of Osteopathic Treatment Techniques are from Osteopathic Solutions' Explainer Video on Osteopathy which you can watch on <https://vimeo.com/601921138>

As of the 14th October 2021, when this Blog post was completed, this informative video has over YouTube 46,826 views (remember that GOSC :p).

Clinical Assessment



The Case History like in any medical practice is essential to gather important information about the patient's presentation. The Osteopath will ask questions like:

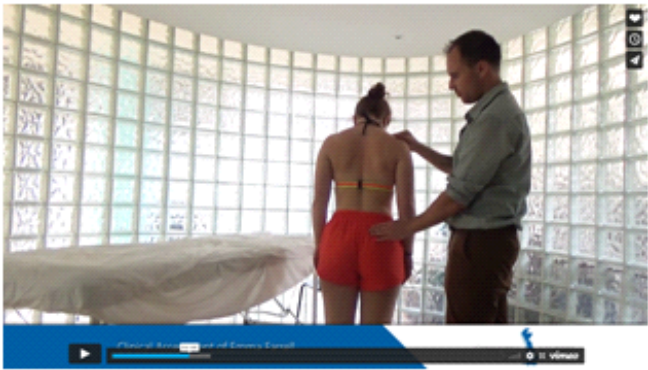
- Where is the neck pain? When did it start?
- How would you describe the pain? Aching? Sharp? Shooting? Burning?
- Can you think of why it might have come on?
- Have you suffered from neck pain before?
- Are you taking pain killers? If so, what?
- Any pins and needles in the hands and fingers?
- Have you ever had a scan of your neck, MRI or X-Ray?
- Any RTAs or Traumas?
- Etc.

A brief medical history will be conducted by the Osteopath including questioning on whether they have broken any bones, had surgery, taking medications and a general questioning screen on the main systems.

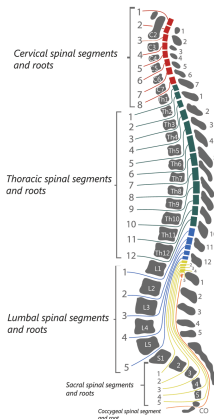
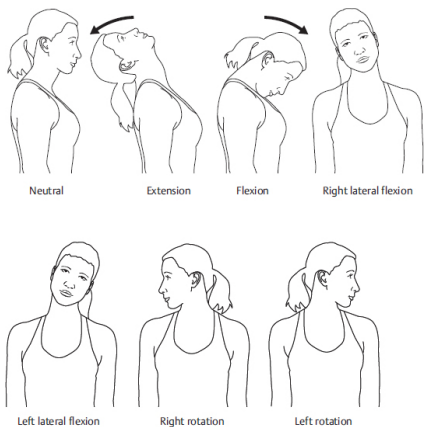


Following this the patient stands up and the Osteopath observes their spine from behind and the sides, as well as looking at their whole body for its biomechanical positioning and function. Within this physical assessment the Osteopath is also looking for any medical abnormalities.

Here Osteopathic Solutions Director and Osteopath Gareth Milner assesses Emma Farrell, specifically in these images above looking at the positioning of her shoulder blades (the scapulae).



Above left here Gareth is feeling (or palpating) the individual segments of Emma’s neck, feeling the muscles and the joints for signs of what Osteopaths call ‘Somatic Dysfunction’. Other muscle groups like the Trapezius and Scalenes are palpated. Above right here Gareth is assessing Emma’s neck mobility as she bends her head forward. The movement of the ‘neck’ should visibly stop at the T4 segment of the upper Thoracic Spine, that is with normal range of motion in the upper back and neck.



The Osteopath also assesses neck range of motion in backward bending (extension), rotation and side bending (lateral flexion), movements shown in the image above left.

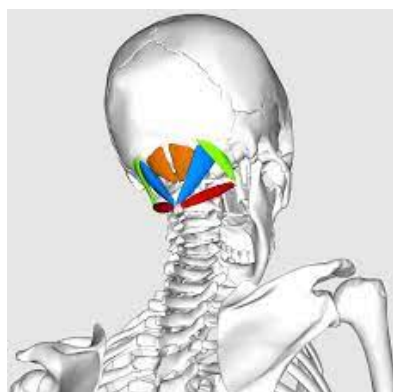
From the Case History an Orthopaedic Assessment may be indicated which features classic Orthopaedic Clinical Examinations.

After an Osteopathic assessment of the individual joint segment mobility the Osteopath will decide on the localised (neck) reason for the pain making a diagnosis, informing the patient in simplified terms; also explaining other factors in their life that may be contributing to the pain or even initiated it.

The Treatment



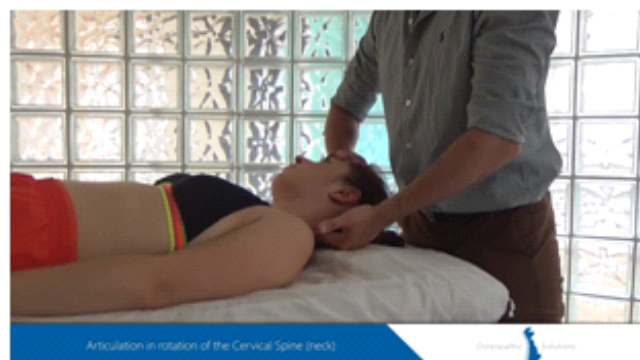
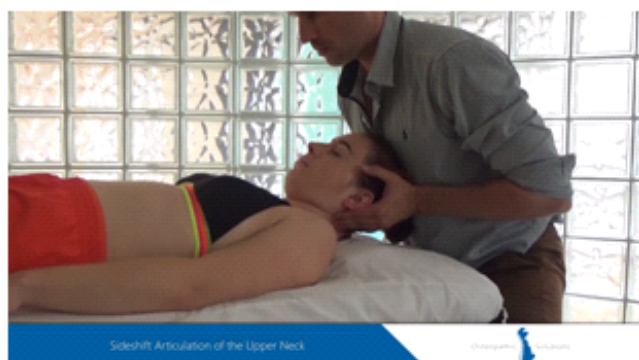
Osteopaths prefer to start treatment working on releasing soft tissues. Some Manipulative Therapies prefer to thrust manipulate a patient's neck with no 'warming up'. This approach can lead to treatment reactions which neither the Practitioner nor the patient want. Releasing the soft tissues first is best clinical practice. Here Gareth is applying gentle but effective traction and inhibition to the upper neck specifically releasing the sub-occipital muscles (shown in the image below left).



This was one of the first techniques that Gareth learnt as an Undergraduate Osteopathy Student at the European School of Osteopathy in the year 2000.

This simple and very nice to receive technique can commonly be curative of patient's Cervicogenic Headaches (CGH). These occur when pain is referred from a specific source in the neck up to the head.

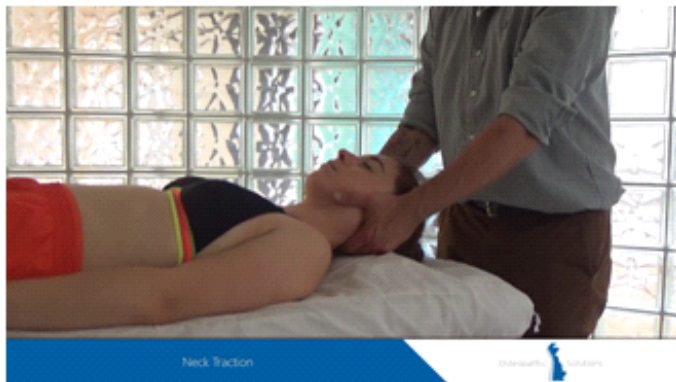
Following this Gareth applies lateral (sideways) movement to the individual neck segments (bones) shown below left. This is very much a Physiotherapy style technique as this movement is an accessory movement of the neck i.e. a movement we cannot do actively. There is of course cross over between Physiotherapy, Chiropractic and Osteopathy.





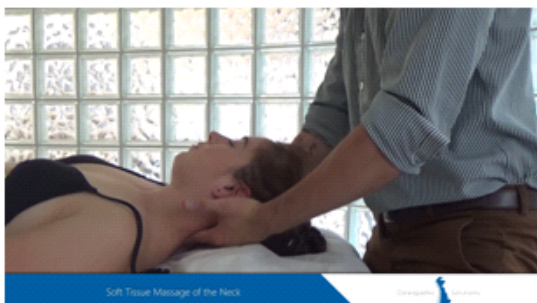
The next technique Gareth performed was an 'Articulation in Rotation' of the neck whilst at the same time applying soft tissue release to the posterior neck muscles. This is a really nice technique to have done, super relaxing (as you can see from Emma's face in the photo to the left) and effective at reducing neck muscle tension.

Gareth then applies more traction to the lower neck (focusing on the mid and lower neck) whilst gently massaging the posterior neck muscles shown to the right.

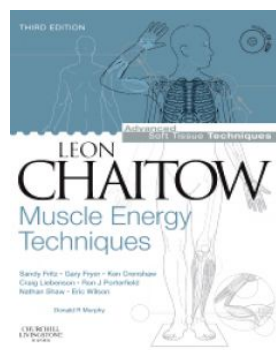


Neck traction (shown to the left) is then applied by Gareth (gripping the sides of Emma's head) stretching all the neck structures (the muscles, ligaments, tendons, joints and discs). Again a very nice technique to have applied to your neck. A moments relief/ break from gravity.

As an Osteopath regarding the spine, we are looking for Spinal Somatic Dysfunctions. This is when a spinal joint is significantly restricted in its movement (it's a bit more complicated than this but that's enough of a description for this Blog). Gareth diagnosed that Emma's C1/C2 joints needed manipulating with the well known Osteopathic High Velocity Thrust (HVT) that 99% of the time will produce an audible 'crack' sound. Concerning these techniques, they are extremely safe in an Osteopath's hands as we trained over 4 years in these techniques, on when they are indicated and when not.



After the HVT, soft tissue massage is applied to the left sided posterior neck muscles (shown to the left) and the right side. This also helps calm the patient again after receiving the HVT.



Muscle Energy Techniques (MET) are newer Physical Therapy techniques and directly stretch muscles using their contraction and relaxation, to effect stretching and lengthening. Here Gareth applied MET to the left trapezius muscle.

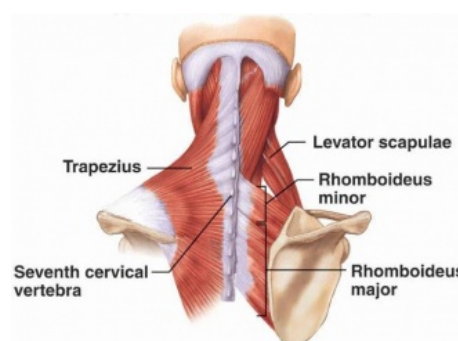
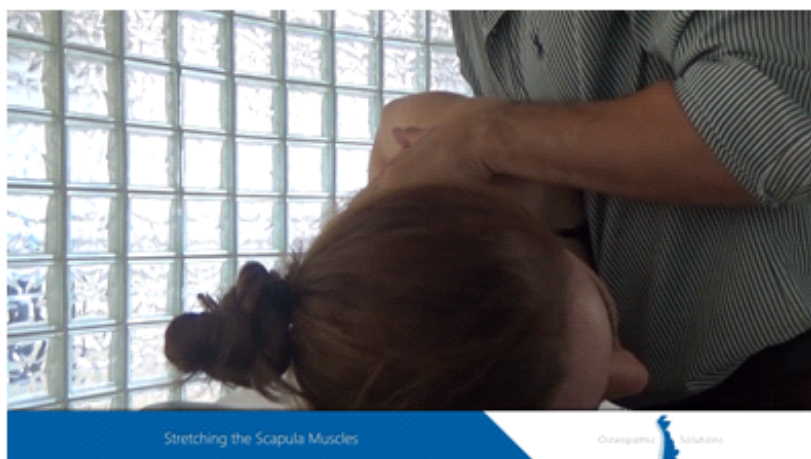
Emma's C5/C6 facet joints also were in a state of 'Somatic' or 'Biomechanical Dysfunction' and Gareth applied a HVT to these joints in the prone (lying on the front) position. C5/C6 is basically biomechanically dysfunctional in us all as it is a spinal pivot point.



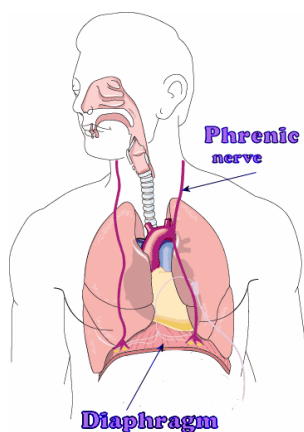
You can watch this Expert demonstration of a Cervical (neck) HVT at 3 minutes on <https://vimeo.com/601921138>

Crack-tastic!

Moving to the side-lying part of the Osteopathic Treatment. Here Gareth applies movement to the left shoulder blade (scapula) whilst applying stretch to the left rhomboid, trapezius and levator scapulae muscles (shown below). Again a very nice (to receive), rhythmical technique, effectively mobilising the neck and upper back.



Osteopathy is a holistic therapy. When patients present with neck pain we don't just treat the neck. For example a patient could have asthma (that we have gathered from the Case History). This chronic respiratory condition causes spasm of the Diaphragm. The Diaphragm receives its nerve supply from the spinal cord at the C3-C5 levels. Diaphragmatic tension can in itself be causative to neck pain. Therefore if the Osteopath just treated the neck, the neck dysfunction would soon return in this case.



In initial treatments of course the Osteopath will work locally to the neck. Commonly on the 2nd treatment (sometimes the 1st) the Osteopath will start to look at other areas of the patient's body that may be impacting the neck dysfunction, like the pelvis and even the foot mechanics down the line (for example a flat foot can affect the hip position which affects the pelvic position which will have affects all the way up to the top of the neck).

An Osteopath may use other therapeutic techniques including Cranio-Sacral Osteopathy, Visceral Osteopathy, Dry Needling, Ultrasound and Interferential Electrotherapy.



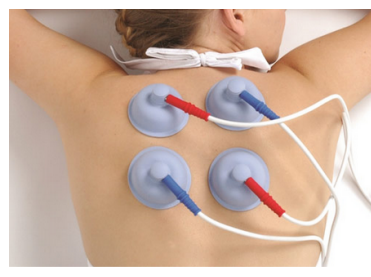
Cranio-Sacral Osteopathic Manipulation



Dry Needling



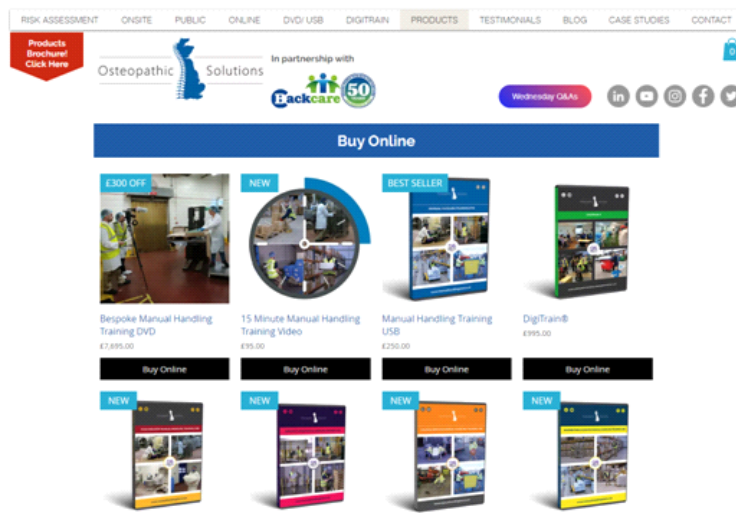
Ultrasound Therapy



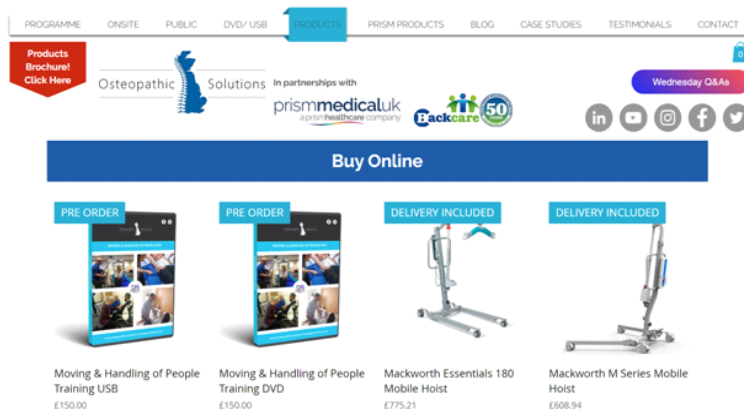
Interferential Electrotherapy

Please read my other Blog Post 'An Osteopathic Treatment for Lower Back Pain' on www.osteopathicsolutions-manualhandling.co.uk/blogs-2021 where you can read my 10 top tips for spinal health.

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If you suffer from neck pain, if you have never visited an Osteopath, do. Refer to www.iosteopathy.org

If you are not LinkedIn connected with me you can on <https://uk.linkedin.com/in/gareth-milner-osteopathic-solutions>

I hope you have found this Blog post useful and interesting.

Thanks for reading.



Myself outside the European School of Osteopathy where I qualified in 2004