

Essay 1 - Educate Yourself about Musculoskeletal Disorders

Anatomy lectures at Uni. I loved them. Learning about the structure of the Human Body. It was fascinating. I remember in the first year of my Degree at the *European School of Osteopathy* in the year 2000, after a day of lectures and practical classes, I would trot upstairs to the library and sit there for a further 2 hours soaking it all up with the range of real bones and Anatomy textbooks on offer. A bit like *Harry Kane* doing extra shooting practice after training! As Osteopathy Undergraduates we had to learn every bone, in fact every part of every bone. Every muscle. Their origins and insertions. What they did. Their nerve and blood supply. The joints. Their biomechanical function. The organs. What they connected to and how et cetera. I recall my favourite Anatomy lectures, with the cadavers (that's the ones that have passed) at *Guys* in London, The Prosection Days! I remember pulling some forearm tendons saying to my colleagues as the fingers flexed. A bit weird I know. But cut me some slack, I was young, dumb (well, maybe not as I was an Osteopathy student) and full of ... rum. Well that was the night out after in Soho, letting our student hair down! As *Richard Richard* hilariously quips in the hit 90s BBC comedy *Bottom* "Grrrrrrrrrrr, Great Days".

When I approach some Health & Safety Professionals over the phone, who fair enough, have their own pre-conceived ideas (some from experiences) about Manual Handling Risk Management and especially Training, they hear 'Osteopath' then they hear 'Manual Handling' and very quickly they jump the gun and envisage that we at *Osteopathic Solutions Ltd* will 'over medical' our Training Courses, filling the theory and practical with medical jargon that will confuse and essentially not educate their Workforce or Instructors that we are training. Not the case. And that is not the case with *Essay 1*. As one of my Clinic Tutors once said (possibly not quite in a socially acceptable way) "Keep it Simple, Stupid!" Indeed I will.

I will cover the main Musculoskeletal Disorders (MSDs) that Manual Handling Accidents or Failures cause. Firstly I will start with the Legal Sharks' bread and butter, the spinal disc injury.

Spinal Disc MSDs

The most common parts of the spine where the discs get damaged are in the lower back at the L4/L5 and L5/S1 lumbar segments (L stands for 'lumbar') and the C5/C6 (my old friend) and C6/C7 cervical (neck) segments. I won't go into the biomechanics of why these segments are the most common, just know they are. Let's look at the lumbar discs first. The most common disc injury is L5/S1 at the bottom of your spine. This disc (especially) doesn't like forward bending or classically called in the Manual Handling World, stooping. Think of a disc like a doughnut. It has a gel core (the jam) and a tough circular exterior (the fried dough). With repetitive forward bending practices commonly including a combined twist, at work and at home, the rear of the L5/S1 disc can tear with the gel bulging posteriorly. This is most common between the ages of 35-45 years old. A bulge is defined as a 'Herniation'. Make no mistake these are extremely painful injuries. Pain is daily, severe and can shoot down the leg, even both. Herniation of the lower neck discs can occur. This is generally through a trauma, an accident. Pain can shoot down the arms into the fingers as well as the daily 'pain in the neck'.

And then there are Prolapsed Discs. Again mainly L5/S1 due to its biomechanical pivot functions. These are a Legal Shark's new Porsche. You can see them rubbing their hands, gleefully. There is no going back after a disc prolapse. Your back is f@@ked. To learn what body movements, types of Tasks, Loads (inanimate) and Environments cause these 'Porsche paying' injuries (as well as the MSDs listed on the following pages), *Essay 12* will enlighten you. For further information including how they can successfully be treated. read my Blog post on Lumbar Disc Prolapses via the URL at the end of this *Essay*.

Degenerative conditions can also affect the spine. Osteoarthritis and Spondylosis can rear their ugly heads anytime really from the mid 30s, but generally around the mid 50s. Conditions of wear and tear.

LinkedIn connect with me and I can send you our Manual Handling Instructor Assessor Course Booklet as a PDF that includes more information about Osteoarthritis and Spondylosis of the spine.

Spinal Muscle Strains & Spasms

Simple microscopic strains can heal quickly as muscles' blood supply (with the healing proteins) is efficient. These strains will be accompanied by a level of muscle over-contraction. They are unlikely to cause days off of work. But ... and it's a big BUT, they can easily turn into spasms which can lead to weeks, maybe a couple of months off of work. *Essay 33 - Grow the Osteopathic Profession* will educate you more.

Shoulder MSDs

The MSDs that will cause high payouts are Rotator Cuff Muscle tears and Frozen Shoulder. The Rotator Cuff Muscles are a set of 4 muscles that connect the shoulder blade to the upper arm bone. They provide shoulder joint stabilisation as well as steering the shoulder ball in its socket so that the bigger, stronger muscles of the shoulder (the Deltoids) can work more efficiently. These muscles can suffer strains and tendonitis (swelling of their tendons). They can also tear which generally will need surgical treatment. Frozen Shoulder does '*what it says on the tin*'. It doesn't move and pain occurs in all ranges of movement ... that exist.

Upper Arm MSDs

From my experience in the Manual Handling industry, the only Upper Arm MSD of note is a Biceps tendon tear. The Biceps consist of 2 muscles that connect the shoulder blade and upper arm bone to the lower arm bones. The muscle flexes the elbow, like what *Arnold Schwarzenegger** did when he showed off his Guns! Tear the tendon and your arm will make a popping sound, with severe pain and bruising, making your upper arm appear dark purple.

Elbow/ Wrist MSDs

As a student Osteopath, I suffered from Tennis Elbow (a bit of an injury basket case, I know). I had a number of cortico-steroid injections. They did nothing and were very painful to receive. Tennis Elbow is when the tendons and the muscles of the rear of the forearm are inflamed and damaged.

**Arnold Schwarzenegger* actually makes an appearance for *Osteopathic Solutions'* Bespoke Manual Handling Training DVD.

Watch on www.osteopathicsolutions-manualhandling.co.uk/bespoke-manual-handling-dvd

Rest and Osteopathic Manipulative Therapy (OMT) is the treatment strategy of choice. Golfer's Elbow affecting the front forearm muscles is more rare and is a similar condition. Wrist MSDs include ligament (stretchy soft tissue that joins bone to bone) sprains and Carpal Tunnel Syndrome (common during pregnancy). Make no mistake, these injuries can cause absence and Injury at Work Claims when they are chronic.

Hernias

Inguinal Hernia (in the groin) is the most common and occurs when intestinal tissues pass through a weak spot in the abdominal muscles. People in jobs that involve heavy lifting are at greater risk of developing an inguinal hernia, which can become chronic. Symptoms include:

- Pain when bending over, coughing, or lifting
- An aching, gurgling, or burning sensation in the area of the hernia bulge
- A feeling of heaviness or weakness in the abdomen

Hip, Knee and Ankle MSDs

MSDs include ligament sprains, muscle strains, tendonitis and osteoarthritis (most common in the knee). Fractures/ dislocations can occur from falls mostly to the ankle. Hip and knee fracture/ dislocations are rare and require extreme trauma (e.g. an RTA or a sporting accident).

Exercises

If you are super keen in learning more about MSDs the following would be really interesting. Maybe you could even go during work hours :>)

- Observe an Osteopath treating patients. Best practice with an Osteopath who provides Treatments for the Company you work for.
Watch my Osteopathy Explainer Video on www.osteopathicsolutions-manualhandling.co.uk/osteopathy.
- Watch an Orthopaedic Surgeon at work. *YouTube* can help you with this.
- Go to the *Body Worlds* show by the famous German Anatomist *Gunther Von Hagens*. Not for the faint-hearted or squeamish. I would advise don't go if you or your Partner is pregnant <https://bodyworlds.com>

Web Pages for further Research

www.osteopathicsolutions-manualhandling.co.uk/osteopathic-solutions-blogs
Here you can read my Blogs on Osteopathic Manipulative Treatment for Neck and Lower Back Pain.

www.osteopathicsolutions-manualhandling.co.uk/lumbar-disc-prolapse
Here you can learn about treatment strategies for Lumbar Disc Prolapses.

www.osteopathicsolutions-manualhandling.co.uk/osteopathic-solutions-blogs
Here you can read my Blog '*Human Biomechanics Explained*'.

LinkedIn connect with me at <https://uk.linkedin.com/in/gareth-milner-osteopathic-solutions> and I will send you our website link where you will be able to download our MSD Score Sheet (for more information see *Essay 19 - Download MSD Score Sheet*).