**The TRUTH about MUSCLE WEAKNESS**

Did you know over 85% of low back pain is caused by hip muscle weakness? Were you aware that over 85% of whiplash sufferers have hip muscle weakness? What about knee pain and ankle pain...hip muscle weakness? Not to mention elbow pain, wrist pain being caused by shoulder weakness? Can you see the common link? Muscle weakness is a very common cause of pain in the body, no matter where in the body that is. So what causes this weakness, and how can it be treated?

Traditionally, we have been taught to look at muscle weakness in only one way, and that is a muscle is weak due to lack of strength, and this strength can be improved by only one thing...exercises. But what about a runner who runs at least 3 to 4 times a week? Does it make sense to say he can develop gluteus medius weakness from running? I say this because the common treatment for this weakness is MORE exercises, isolating the gluteus medius!

**Muscles and pain**

Another example is a sportsman who has sustained a hamstring injury (for the sake of argument), which came about during a football match. Hamstring strengthening exercises are often an early intervention once pain has settled. What this is saying is that the hamstring must have been weak to become injured, and that IF WE STRENGTHEN THE MUSCLE THERE IS LESS CHANCE OF INJURY. Is this really where the thinking is going in Physiotherapy? Is everything being blamed on muscle weakness?

There seems to be a huge trend towards exercise-based therapy, which indicates that there is a school of thought that says most of the pain people suffer from is caused by a lack of strength and stability. Treatment methods such as Core Stability, Pilates, and general gym exercises are all vying for the same thing, to strengthen to prevent. Now, it might be true that muscle weakness is responsible for a lot of pain, but the question that is not really being answered well enough is:

**What really causes muscle weakness?**

It is quite obvious, or so it seems, that if a muscle is not used correctly for a while, for example if a limb is put in plaster, then the muscles may waste and become weak. I say, ‘so it seems’, because often when testing these ‘wasted’ muscles, they actually have very good strength, relative to their situation. Muscle strength is all about the ability of a muscle to cope and adapt to the stresses it is put through. Muscles do not have to be Schwarzenegger-like to be strong. We are all individuals, but it seems that we are not aware of the body’s ‘foundation strength’.

**Foundation strength**

This strength means the amount of strength the body requires to do what is being demanded of it in a normal day. For example, if I was a runner and I ran 3 days a week, mu muscles will adapt themselves to this routine and develop strength accordingly. If I increased my effort to 4 days, my muscles will adapt further and so on. If, however, I was a desk jockey, and did no exercise, then my muscles will adapt again and will have a foundation strength enough to do what I do on a daily basis. If I then went to run, they would certainly let me know, as they are not strong enough for that.

So when we measure muscle strength, what we are measuring is the body’s foundation strength, which is relative to the owner’s daily activities and is unique to them. Not all strength is the same in everyone. It should be, however, equal on both sides of the body, despite being right or left-hand dominant. We might have ‘bigger’ muscles on our dominant side, but that does not mean the other side will be weaker in its foundation strength.

**Compensation**

Now, what if we do find muscle weakness, what effect can that have on the body? Well, our bodies are designed to perform certain patterns of movement to achieve certain goals, but if one muscle is weak in that pattern or chain of events, then the body will be forced to incorporate other muscles to compensate to attain the same goal. This compensation can then lead to stress on another part of the body and further compensation to relieve that stress. This chain of events can go on over a large area of the body, and explains why we often see pain in an area far removed from the initial stress or injury.

Understanding these pathways of compensation is vital in being able to work back along the sequence of events to reach the initial problem area. But these pathways will not all be as obvious, commonly only the dominant one will be evident, and until this is cleared the next step of the sequence will not be visible. It is a bit pass the parcel, unwrapping the layers to get to the surprise, in this case the cause.

**Muscle weakness in sport**

With such a vast interest in sports therapy these days, and sportsmen and women of all ages and capabilities requiring instruction on prevention and in cases treatment, it is very important that we know what muscle weakness can do in sports. For example, did you know that weak left hip muscles can cause a push shot in golf (i.e. the ball flies off to the right), or that weak right hip muscles can cause a pull-hook shot (low left)? The weakness causes all sorts of compensatory movements to take place, and the golf swing has to follow these changes and the resultant shot is dependent on the compensations. So we could say, for example, that a golfer that pushes most of his tee shots has weakness in the left hip muscles.

Similarly, a right-footed kicker in a game of rugby, or footie, may become inconsistent if he has weakness in the left hip muscles. This is because his left hip supports him as he kicks. This support is essential in him remaining stable and thus being accurate in his kicking. A right-handed bowler in cricket will struggle similarly if his left hip is weak, as he lands on this as he delivers the ball. If the weakness causes the hip to give way a bit, this support base is unstable, thus his upper body and therefore his delivery arm may not reach the perfect delivery position consistently, and the ball can go virtually anywhere.

The problem arises in these situations when the player tries to adjust his technique, not knowing that he has the weakness. He is making an adjustment on how he feels he is swinging or bowling, and these adjustments are a direct result of the weakness. As he alters his technique, so he incorporates other muscle patterns, which then force overuse on other areas, which in the long-term can cause dysfunction and pain.

In my opinion, many a sportsman/woman have made adjustments to their techniques purely related to muscle weakness they are unaware of. If only they had someone look at their strength from a myofascial viewpoint, they would be much better off, as they would have a foundation strength that can be corrected, giving them balance, stability and a great support base from which they can perform at their best.

The problem these days is most top sportsmen/women are spending so much time in the gym ‘strengthening’ that they are *perceived* to be in balance and strong. This is NOT always the case. Even the strongest man can have muscle weakness that they are unaware of. I have seen my fair share of top rugby players and no matter how much time they spend in the gym, if they have pain somewhere, I will find weakness somewhere. It is always fun when I, an average 68 kg bloke can push a 120kg rugby player’s leg down from abduction without much fuss! And you spend HOW much time in the gym???

Which all goes to show that exercise is not always the best way to restore muscle strength, in fact in a lot of cases where I measure muscle weakness in a patient in pain, they have already tried exercising or have been given exercises by another Physiotherapist. And yet they are still in the same state, sometimes worse! A few sessions with me, without exercises, and their strength is back to normal, OFTEN AFTER ONLY ONE TREATMENT!

**Fascial network and muscle weakness**

From the above it is easy to see that muscle weakness can have a variety of effects on the human body, both in painful conditions and in sports, and yet muscle in the majority of cases are the victims of their own surroundings. Muscles are the body’s lie detectors. Kinesiologists use muscles to give them information about all sorts of things, often where there might not be any symptoms. It can be used to gauge pelvic imbalance, spinal distortions, nervous system dysfunction, and many more. Muscle will not lie!

We have in the past and even now tried to complicate muscles, but really they just need a few things to be able to function. When they do not function well we need to look at a possible cause which is not muscle-based. We need to see the problem as one where the muscle is NOT BEING ALLOWED TO WORK, rather than the muscle ‘not working’. Too much blame is given to the muscle and not to the things that allow the muscle to operate the way it is designed.

This again indicates why exercise as the first choice for muscle weakness can fail on many occasions, as it is not a muscle weakness from lack of exercise. In these cases, exercise could actually cause further weakness and worse, it could start up a pattern of compensation as we have seen earlier in the report.

**Conclusion**

To end this report, I would like to give you a list of causes of muscle weakness that I have experienced over the years. You may recognise some, others may be new to you.

* Wasting
* Poor blood supply
* Poor nerve supply
* Food/chemical sensitivity
* Meridian imbalance (Acupuncture)
* Electromagnetic exposure (EMR)
* Stress
* Reciprocal inhibition
* Malnutrition

Of these, there is only ONE that will be improved through exercise, notably muscle wasting. Yet a lot of the patients seen can be suffering from any of the other causes, but if we do not assess correctly, we will never know.

There is one other reason for muscle weakness, and this is probably the most common cause you as therapists will see in your practicing careers, a cause not often noted or even assessed. A cause, when discovered, is so obvious, and so simple to restore that you will wonder why you have missed this for so long.

If you want to know the secret of the most common cause of muscle weakness in your patients, and you want to learn how to treat it and give your patients a strong and healthy body, then join me on my course, **Pain: An applied myofascial approach**, and discover an exciting way to increase your patient load, increase your income and treat with greater success.

See you there.