

The Muscle Meridians

Brief History

The muscle sinew meridians were first mentioned several thousand years ago in the Spiritual Pivot, the second book of the Yellow Emperor's Guide to Internal Medicine. In this book, only the pathways and basic functions are mentioned. This lack of knowledge is unfortunate, as the muscle sinew meridians comprise a unique system whose blockages are often seen in a wide range of health problems.

1st and 2nd Patterning of Movement

The coordinated movements such as crawling, cruising, standing, walking that we learn as children, as well as all other more complex manoeuvres - playing a musical instrument or developing the particular coordination necessary to play a particular sport or operate a piece of equipment - that we learn later in life, have two fundamental patterning processes to enable the movement.

The first is the learned patterning of the brain in terms of neurological pathways and signals that precede the action of the muscles and fascia. This is well known and is usually talked about both in terms of neurological pathways from the brain to the appropriate receptors and the hardwired neuronal paths in the brain that allow for fast data transmission in order to perform complex manoeuvres.

The second fundamental patterning process is the activation patterning of particular sequences of energy pathways (aka meridians) that enable the flow of electrical energy to the particular muscle groups to provide energy for the force but also to enable and synchronise their actions. The sequences that I am referring to are what are known as the muscle sinew meridians system of traditional Chinese medicine. Please note that this is not 'muscle memory.' The muscles don't have memory. The memory of the learnt movement is in the bioelectricity like a software program.

This coordinating energy of muscle movement also has a learning facility that remembers the movements that coordinate complex actions. This is not a new understanding in east Asian medicine, but it is an relatively unknown consideration in western anatomical theory.

Nonetheless, it is obvious that we need both the brain signal and the physical practice to be able to perform any action. We can understand a movement and even watch it over and over again without being able to perform it.

We can watch footballers kick amazing goals and basketball players sink 25 feet turnaround jump shots for years without being able to do it. Through our intellectual understanding of a movement we can even teach others to do it accurately but we can only learn to perform an action efficiently through physical repetition. We need both the first and second aspects of the movement patterning process.

Emotional Loads Affect the Muscle Meridians

Part of the understandings of this learning concept in ancient martial arts, involves the realisation that the bioelectricity is also emotional and that to get it to flow correctly, we need to incorporate emotion into the equation. As the martial artist Bruce Lee says in the movie 'Enter the Dragon', '*Emotional content!*'

As the bioelectricity and emotion are the same energy, it is necessary to have an emotional content in our actions to facilitate correct and timely movements. This is true in dance, football, acting, martial arts and all other disciplines involving the use of the body. It is in this second patterning function, where we see that the physical anatomy is not separate from our awareness or consciousness of the movement.

The muscle and fascial tissue supply more information to the central nervous system than any other organ or body system. This system is a sensory wonderland rather than just being a means of locomotion. The muscle nerve system of sensory receptors, has three times the number of sensory fibres to motor fibres, which modern structural anatomists see as illustrating a profound sensitivity to touch rather than acting as mechanical and chemical receptors.

It is because they are really about these electrical flows, that meridian muscle groups really have nothing much to do with muscles. They are about specific flows of bioelectricity (known in TCM as wei qi - the defensive bioelectricity of the body) that permeate muscles and sinews. The directionality of these flows is dependent on the movement so that the system is actually dynamic rather than a set pattern. So, we don't move one muscle at a time to form a coordinated movement. It all happens at once (when it has been learned) through the 'software' program that is inherent in the flow of electricity through the musculature - the muscle meridian system.

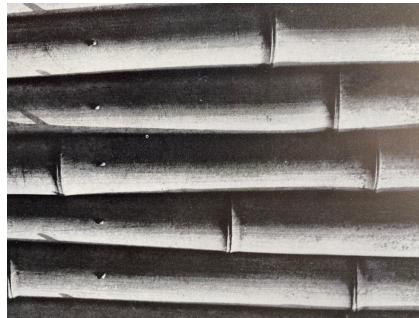
Problems appear in the system when it is subject to emotional loads and also where the fascia knots - which is where and when the fascia becomes restrictive.

Emotional Loads

The meridian muscle groups hold our particular postures and muscular holding patterns through the holding of emotion. We can define this as emotional load or, the conscious and unconscious physically restrictive holding of opinion and attitude. The problems caused by these occur because we become less receptive in proportion to our emotional load. This directly affects the receptivity of the muscle sensory receptors and thus the flow of bioelectricity through the muscle. Remember that mind body and spirit are not three things – they are one thing expressed through different planes of being.

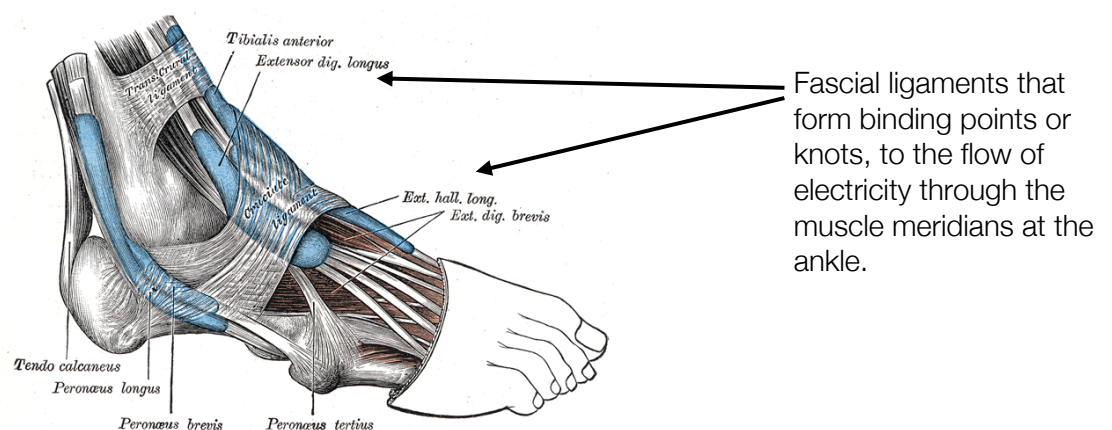
Knots

The physical fascia between muscle groups act as separators like the knots we see between parts of bamboo. When these areas are restricted, they act like a tourniquet to the muscle meridian flow.



In TCM these fascia separators were sometimes referred to as the fruits of the muscle channels. In these fruits or knots, the flow of bioelectricity is potentially restricted as they are less conductive when under tension. Tension can come from contraction in flow in the muscle meridian system or tension in the fascia which then tightens up these knots or physical restrictions to the flow itself.

For this reason, when treating muscle meridians, the bioelectricity must be guided through the knots. The fascial knots are easily visible in the drawing from Grey's Anatomy below.



The Twelve Chinese Muscle Meridians

Chinese medicine recognizes that there are twelve muscle meridians, one for each of the organ/meridians systems. Just as the flow and the particular bioelectricity is somewhat different to the flow of bioelectricity in the meridians, so also, the cycle of flow differs. The Spiritual Pivot notes that the meridian muscle groups work on a two-hour time clock, which is different from the normal fixed time cycle of meridians. In this clock, the time starts upon waking (whatever the hour) with the energizing of the bladder channel. The reason for this is that the bladder channel activates locomotion. This channel runs down the erector spinae muscles of the back and through the pelvis and legs to supply energy to move.

Note: An interesting experiment is to keep your eyes closed on waking and get out of bed and bend over. Note how far you can bend and then the next day, open your eyes and repeat the experiment. You will find that you bend further after you have opened your eyes as it activates bioelectrical flow in the muscles of the back and legs.

All the flows during the day have to do with movement, eating and processes associated with them. At night the energy flows through the yin organs as part of a cycle to rejuvenate them.

Movement or yang day cycle:

Bladder
Gall Bladder
Stomach
Small Intestine
San Jiao
Large Intestine

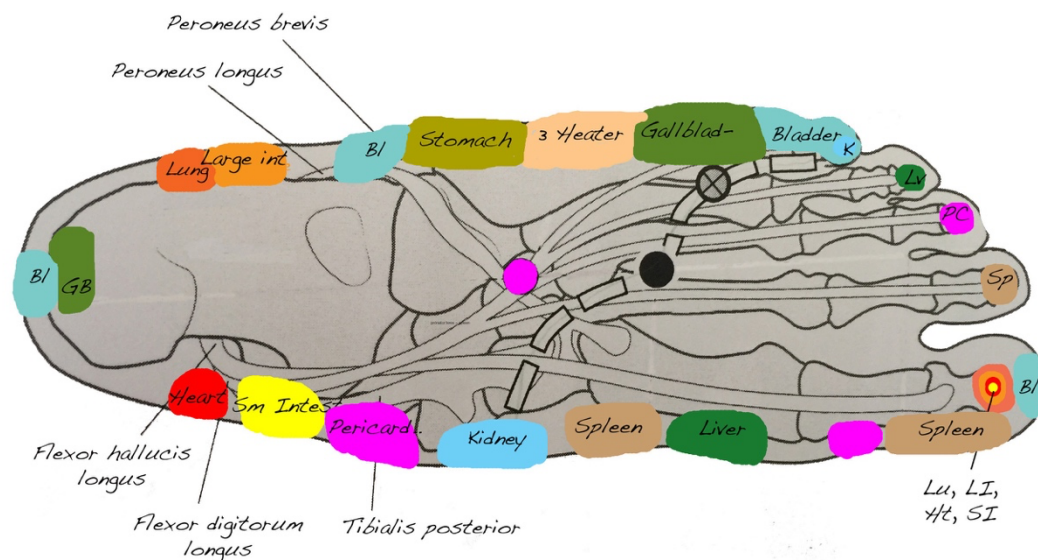
Nourishment or yin night cycle:

Spleen
Lung
Kidney
Heart
Liver
Pericardium

According to TCM theory, the muscle meridians are the second part of the immune system. The first part, which protects the body against external influences is the bioelectrical field known in TCM as the Wei qi. If pathogenic influences get through this field then they proceed to the muscle meridians before entering the collateral channels, then the regular meridians and finally the organs themselves. The oft-quoted phrase, 'I can feel it in my joints' is a description of the influence of external meteorological factors on the muscle meridians. The reason for feeling this is that the external bioelectrical field isn't strong enough to deal with the influence.

Introducing... The Sleeve Concept

The Sleeve Concept looks at the muscle meridians from the idea that all of them bind primarily into the ankles and wrists and the edges of the foot and hand. Think of them like pulling on a pair of overalls with elastic cuffs. All the muscles are in the body of the overalls and the elastic circular sleeve that is pulled over the hand or foot connects to all the muscle groups. As the overalls - or muscle move in a dynamic fashion, there are different degrees of stress at different angles that activate other muscle meridian channels and therefore different muscle groups.



One of the keys to understanding muscle meridians, is to realise that they comprise a dynamic rather than rigid system. Flows do not rigidly conform to rather exact patternings like the meridians. They are dynamic and they flow in accord with either learnt, or spontaneous movement. The idea that there are a series of rigid muscle meridians is wrong. It is based on the undisputed fact that most people move in fairly similar regulated ways and that the flows are therefore similar. However, the system is really based on a 'needs must' basis like the oxygen supply system to muscles. Oxygen doesn't go to muscles democratically – it goes to the muscles with the highest load. Similarly, bioelectricity doesn't flow in democratically defined patterns; it goes to where the movement directs it.

A few extra notes:

- In the early Chinese teachings on muscle meridians, it is noted that all the paths are superficial and don't reach the organ systems. This is incorrect as we can easily see from the time cycle of the flows. For instance, there is no purpose going to the heart at 12 midnight except to rejuvenate it. I have seen particularly, the influence on the stomach and small intestine organs from the opening of the muscle meridians in the region of the stomach meridians. As organ/meridian systems are intrinsically linked, problems with organs can display

as problems in the meridians that flow electricity through the muscular system. We see some of the ramifications of this in the accumulation of tension in the marsh areas associated with the organs in the Wind Gates balance. Further to this, liver tension for instance, may show up through tightness in the adductors and gallbladder tension as soreness in the iliotibial band or shoulders or the hip joint. The congested spleen can show up as tension in the large toe etc. Of course, organs with muscle functions such as the heart muscle and the stomach will be affected by muscle meridians as they are muscles. It is one of the beauties of massage that the health of the whole can be benefitted through application of energy to the muscle meridian system.

- The coordinated movements of crawling that we perform as children, are an imbedded movement like suckling. While suckling is primarily the way that we explore our world, crawling is a part of a coordination development system. When we crawl, we activate the coordination centres at the kidney gate and the neck. The linking of these two centres through crawling, activates additional imbedded movement pathways that are as diverse as talking and walking. In simple experiments such as getting an adult to lateral crawl (which is; same hand goes forward with the same foot) it's been shown that a person with poor coordination, will improve substantially in a matter of 15 minutes. For example, I have witnessed an 85 year old woman who had never been able to do 'star jumps', perform them effortlessly after 15 minutes lateral crawl.