

NAT Pro Series:

Detailed Hand Massage For Upper Body Release

Course Notes

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Hands

When we think of hands – they are pretty amazing. We can carry a pile of bricks or a new born baby and adjust the grip that we need accordingly. We can carry out big movements using the whole of our hands; pushing a door open or shaking someone’s hand in a greeting and to varying degrees we can isolate the use of each finger so that we can point, thumb a lift, pinky promise even. Then there are the finer motor still, we hold cutlery or chopsticks to eat, hold a pen in order to write, thread a needle, think of the skill of the surgeon’s hands making an incision, separating nerve from the rest of the tissue. Pretty much from the moment we wake up until the moment we go to sleep at night – we are using our hands.

As a species we are also hand to mouth feeders, unlike sheep or cows which are grazing animals, our hands are an important part of our eating patterns. They are also part of our grooming – unlike cats or dogs for example, we don’t use our tongues to clean – again we use our hands. Our hands are therefore a big part of both our survival and our wellbeing.

One of the big advantages to us as humans is that we have this opposable thumb – that is, we can stretch our thumb across the hand and this is what allows us to grip – in terms of human development this has been key as we have developed skills and abilities across the years – as a species as well as individuals.

It’s not just humans who have this; Gorillas, orangutans, chimpanzees, and bonobos belong to the same family of primates as humans, the Hominidae family—the family of great apes. Studies have revealed that great apes share 97 percent of their DNA, which explains the similarities they share with us humans.

It’s not just the Hominidae family that have opposable thumbs – so do opossums, giant pandas, koala, and even some species of arboreal frogs! For many of us in bodywork, our hands are the tools of our trade – yes we’ll use elbows and the flat of our arms, we might use tools, some might even use their feet – but the vast majority of our work is with our hands.

So – let me ask a question – when did you last get a good hand massage?

TASK, stop and reflect: Bring to mind some of your specific clients and the jobs they do – how much do they use their hands and how much hand massage do they get.

Often hand massage is little more than a gentle stroke over the hands. We all know how good our backs and necks will feel after a good massage,

that stretching out feeling when it feels like your back is moving properly and you have that increased flexibility and strength – but we don't accord our hands the same level of detail and treatment.

Now I can hear some people saying that this is because our hands don't have as much muscle as the back or shoulders and of course, that's true – but we will come shortly to look at the anatomy of the hand and how we can work effectively on it. But just because it's not the same structure doesn't mean we can't work on them effectively.

I find in my work that detailed hand massage can be the key to releasing tension elsewhere in the upper body. If you have a client who has tight shoulders, restriction in their cervical or thoracic spine or at the top of the chest - then detailed hand work can



make a big difference to how their body will be able to release that tension. If you have a client whose shoulder, chest or back tension you are struggling to release and no matter what you do, the tension comes back within hours after them getting off the massage table – then this detailed hand work might be a really useful tool in helping you get longer lasting and quicker results.

Sometimes a client's health or injury history might mean you can't work directly where you would normally work to release their tension – and hand massage can again come into its own here.

You might, e.g. have a client who has a very tight neck, its stopping them sleeping or getting comfortable but they had a moderate stroke 2 months ago – you can't give them any massage to their neck as direct massage is still contraindicated following the stroke – but you will help release some of that tension in the neck by working on the hands.

You may be working with someone who has a malignancy close to their neck and you can't put direct or indirect pressure on that area – but again – you can help them by doing this detailed hand work.

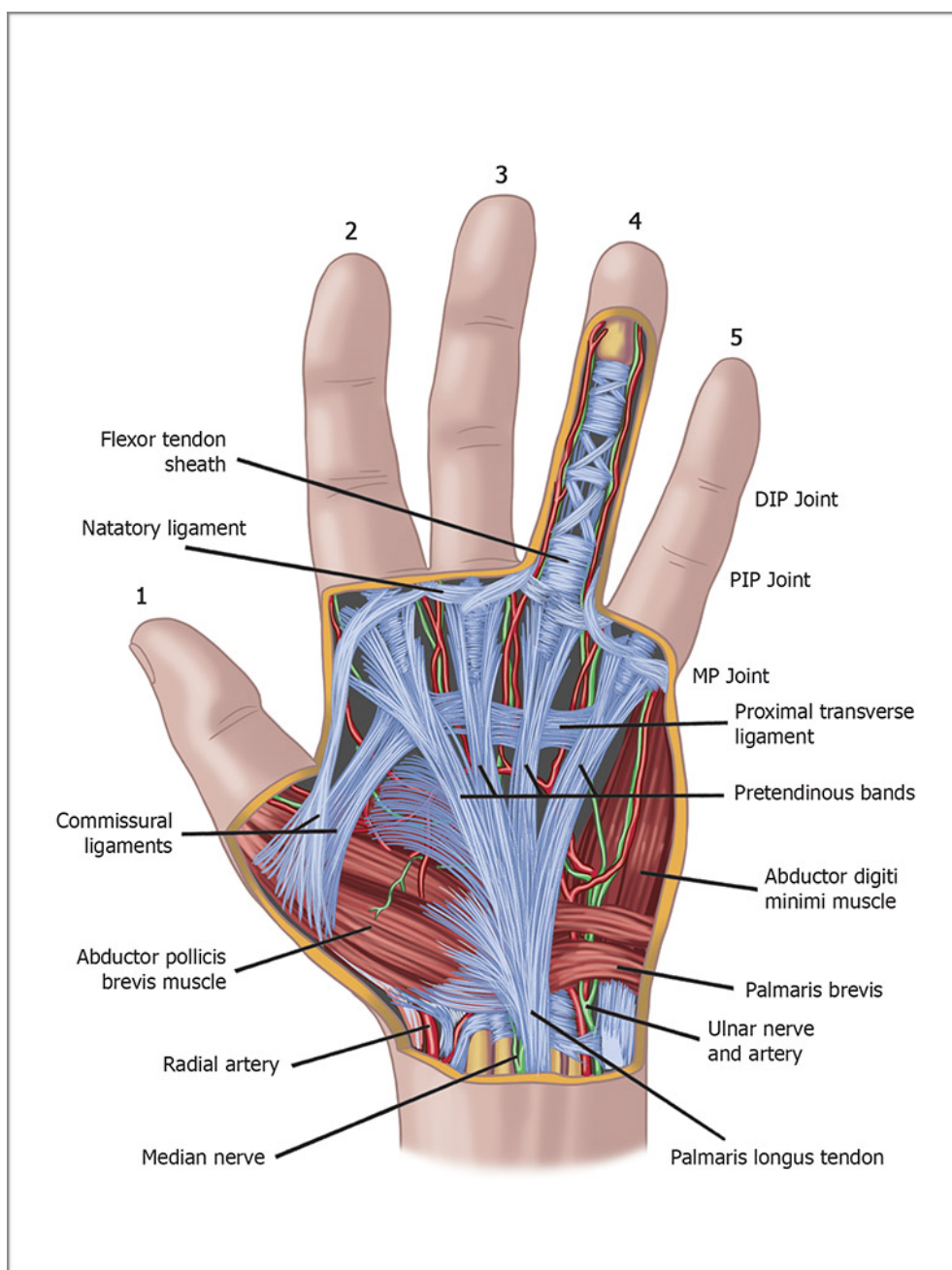
There might be inflammation or injury in a shoulder which means you can't work directly on that area at the moment – but you can do the handwork that starts to allow the shoulder muscles to relax.

So this detailed hand work becomes an important tool to have, I use this is the vast majority of my treatments, if you unlock the tension in the hands, you will begin to unlock the tension in the whole of the upper body. I'll repeat that bit – if you unlock the tension held in the hands, you will begin to unlock that tension in the whole of the upper body.

The Anatomy of the Hand

For practical purposes when talking about the hand for our massage work we can split the hand into 4 parts: Fingers, palm, back and wrist.

Although this sounds simple, the anatomy of the hand is actually very complex. This cross section of the hand shows how all of the separate systems we will look at work in harmony.



The hand is made up of nerves, blood vessels, muscles, bones and joints, ligaments, and tendons.

First of all we look at the skeletal structure of the hands. Each hand has 27 bones that give the hand an incredible range of motion and an equally incredible precision in motion. The bones of the hand and wrist provide the body with support and flexibility to manipulate objects in many different ways and of course these then link in with the bones of the forearm to give the bigger rotations and movements.

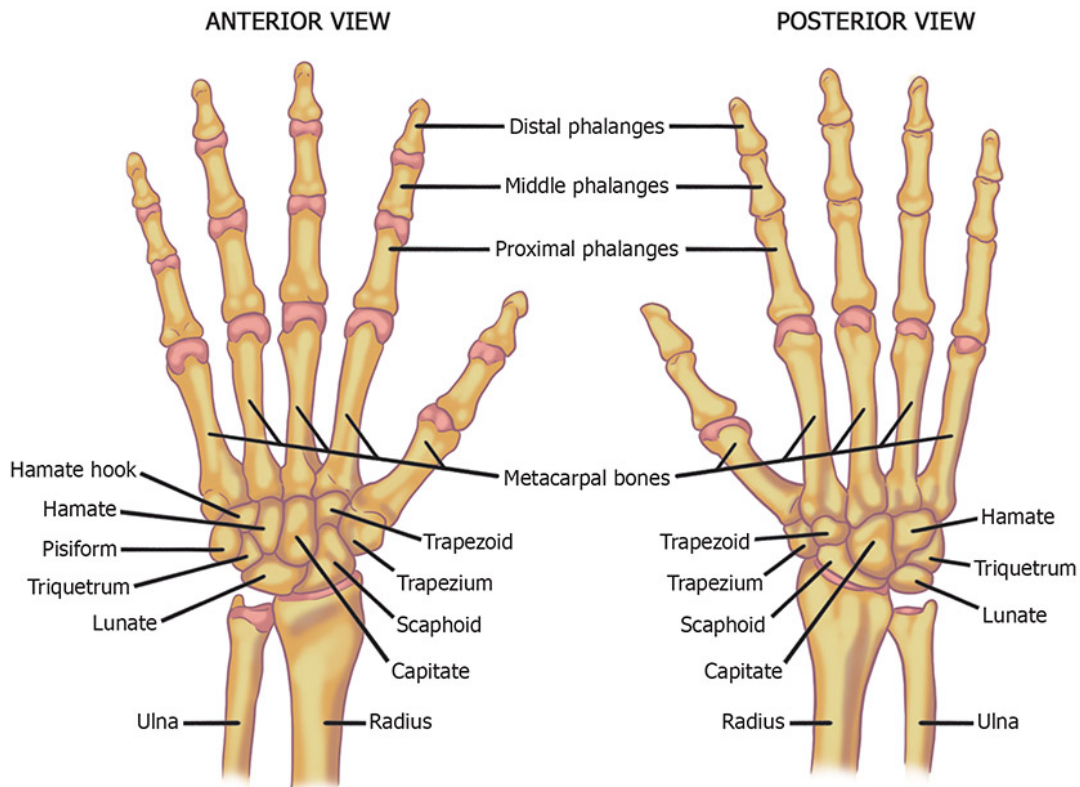
You should pause now to look at the workbook to go through some of the hand anatomy details.

Starting at the tip of the fingers we have the finger bones, or phalanges (Pronounced Falange). There are distal, middle, and Proximal phalanges in the fingers – distal being at the tip of the fingers, the middle and proximal – apart from in the thumb where there is no middle bone. Apart from the distal bone, where the tip is rounded and a bit bulbous, the rest of the bones all interconnect.

The proximal phalange has a joint with the metacarpal where the finger moves into the rest of the hand.

The metacarpals of the fingers make up the bone structure of most of the hand. They are all similar in shape and joint in one end at the wrist and the finger at the other- and they have various degrees of movement. The thumb metacarpal is a similar shape to the metacarpals of the fingers, but it's thicker and it has significantly more motion than the other metacarpals. Then there are the bones of the thumb joints and the wrist which you will see in more detail in the accompanying workbook. Stop to have a look at those now and you will see just how complex the anatomy of the hand is – and that is just the bones and joints!

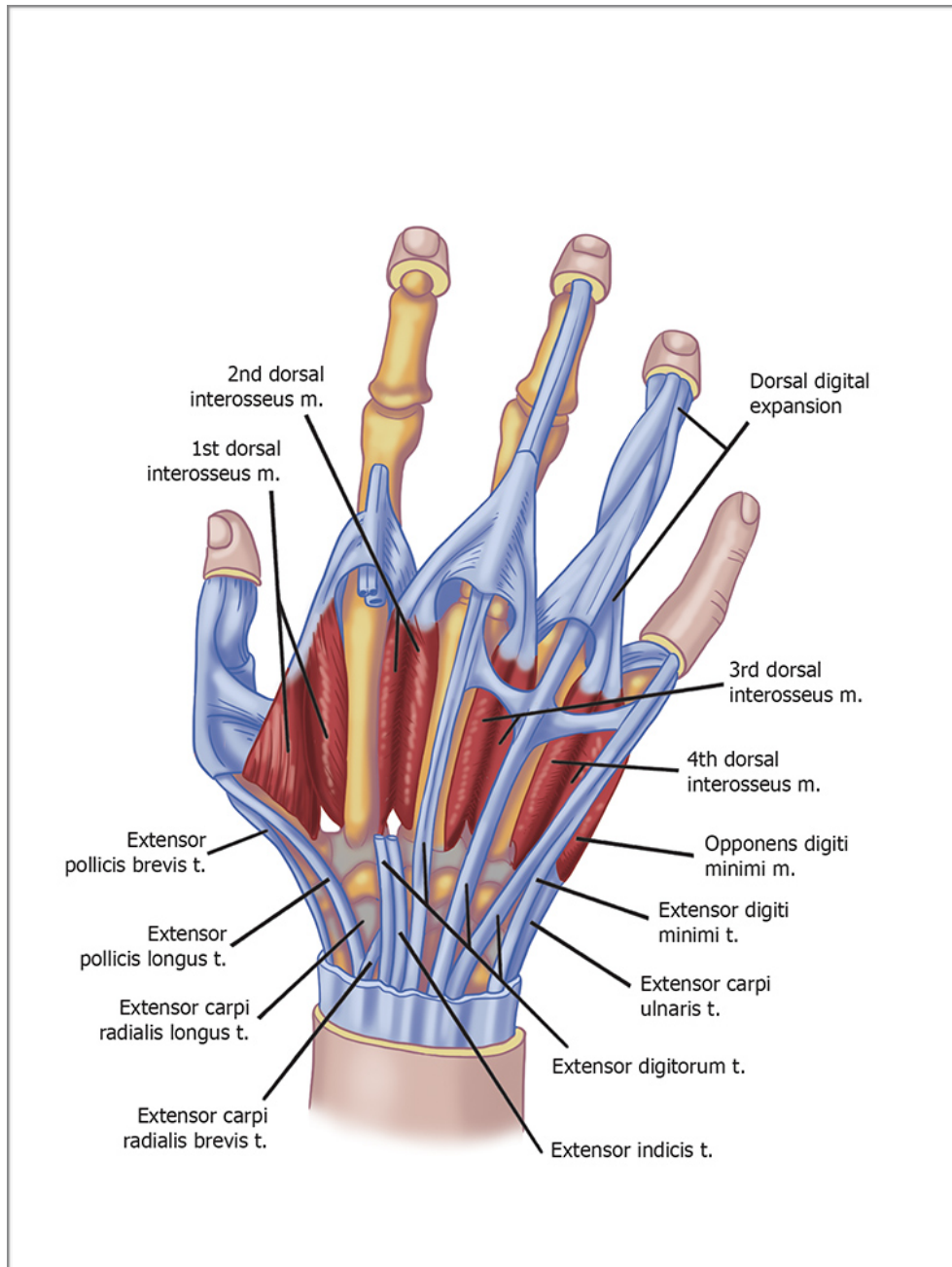
BONES OF THE HAND AND WRIST



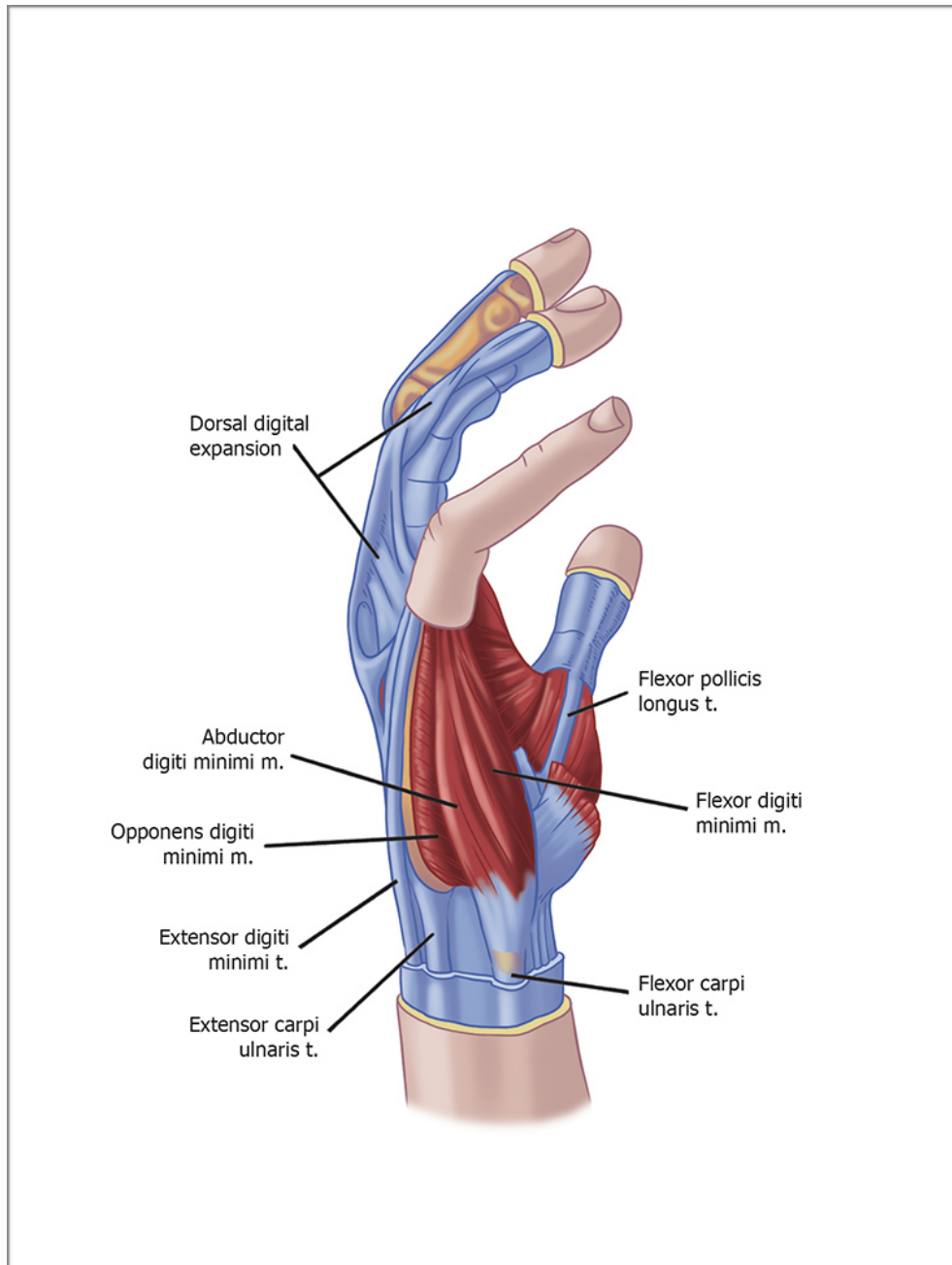
The ligaments, tendons and muscles add another and very important layer to this hand anatomy. It's the muscles in the forearm and palm which all work together to keep the wrist and hand moving, stable, and aligned.

The muscles that move the fingers and thumb are above the wrist in the forearm. Long flexor tendons extend from the forearm muscles through the wrist and attach to the small bones of the fingers and thumb. When you bend or straighten your finger, these flexor tendon slide through a snug tunnel, called the tendon sheath, this keeps the tendon in place next to the bones.

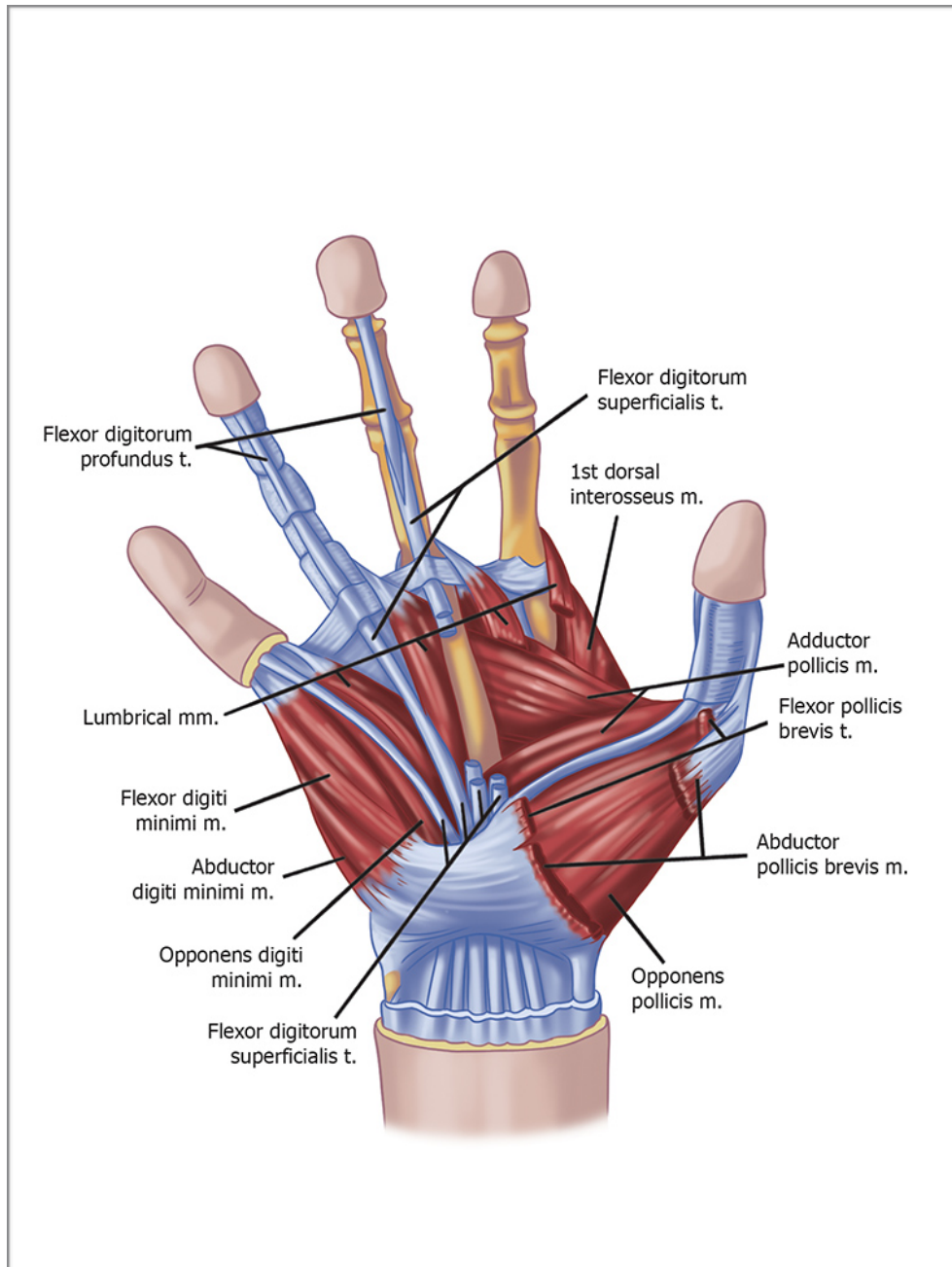
Muscles and Tendons in the Hand



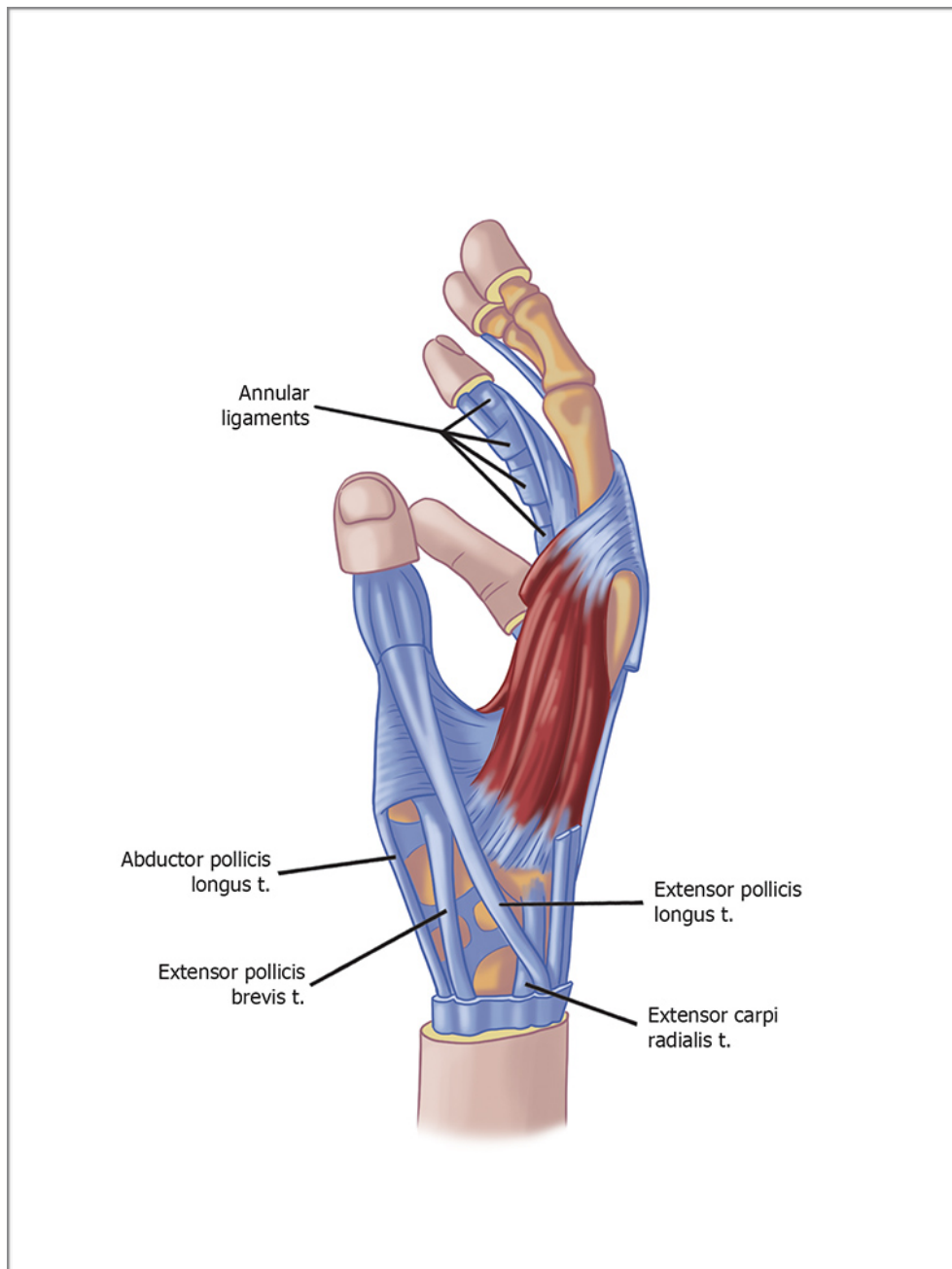
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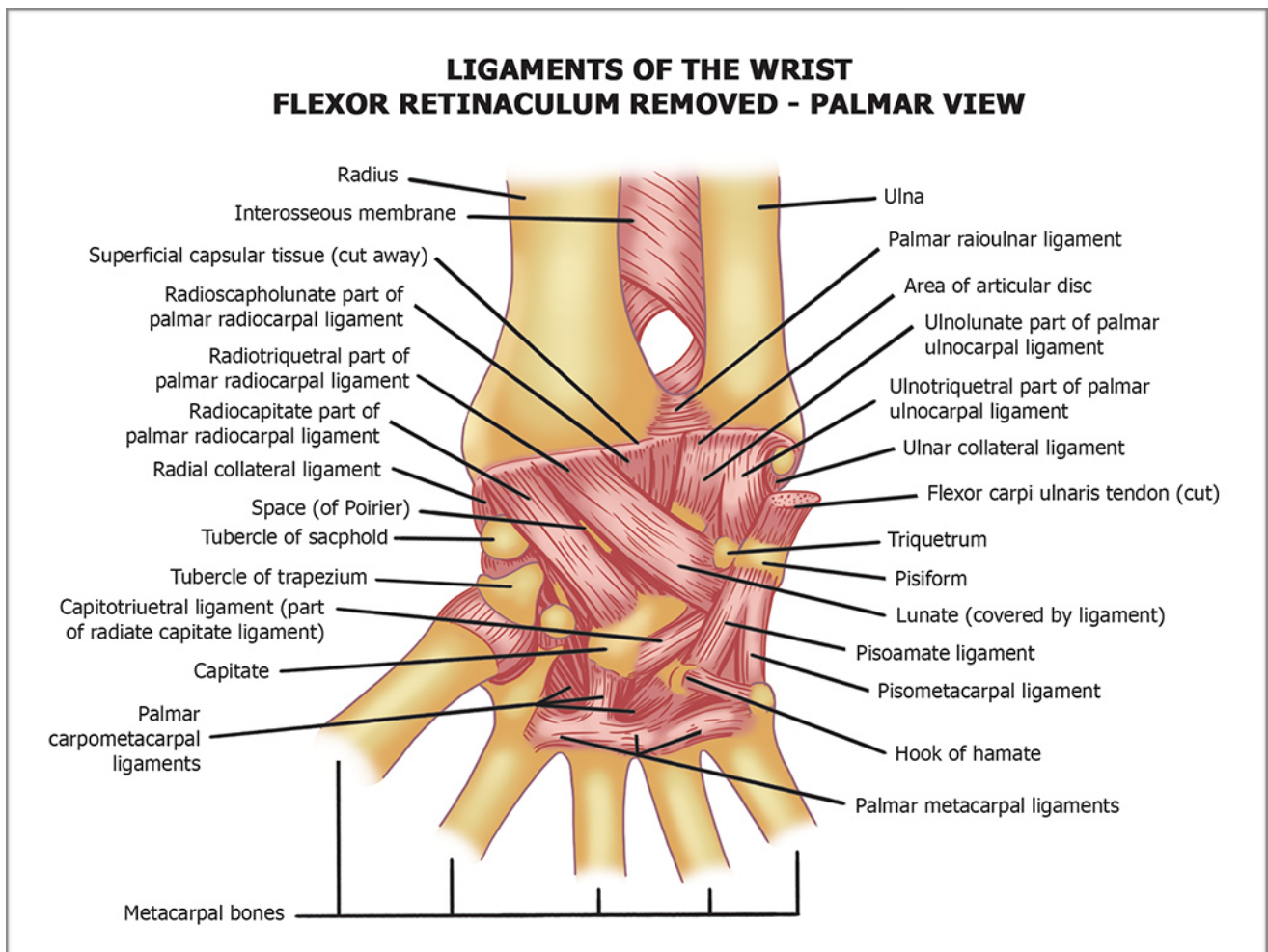


Tendons, of course are the white, flexible fibrous cords at the ends of muscles that attach the muscles to the bones. When the muscles contract, they pull on the tendons and this moves the bone.

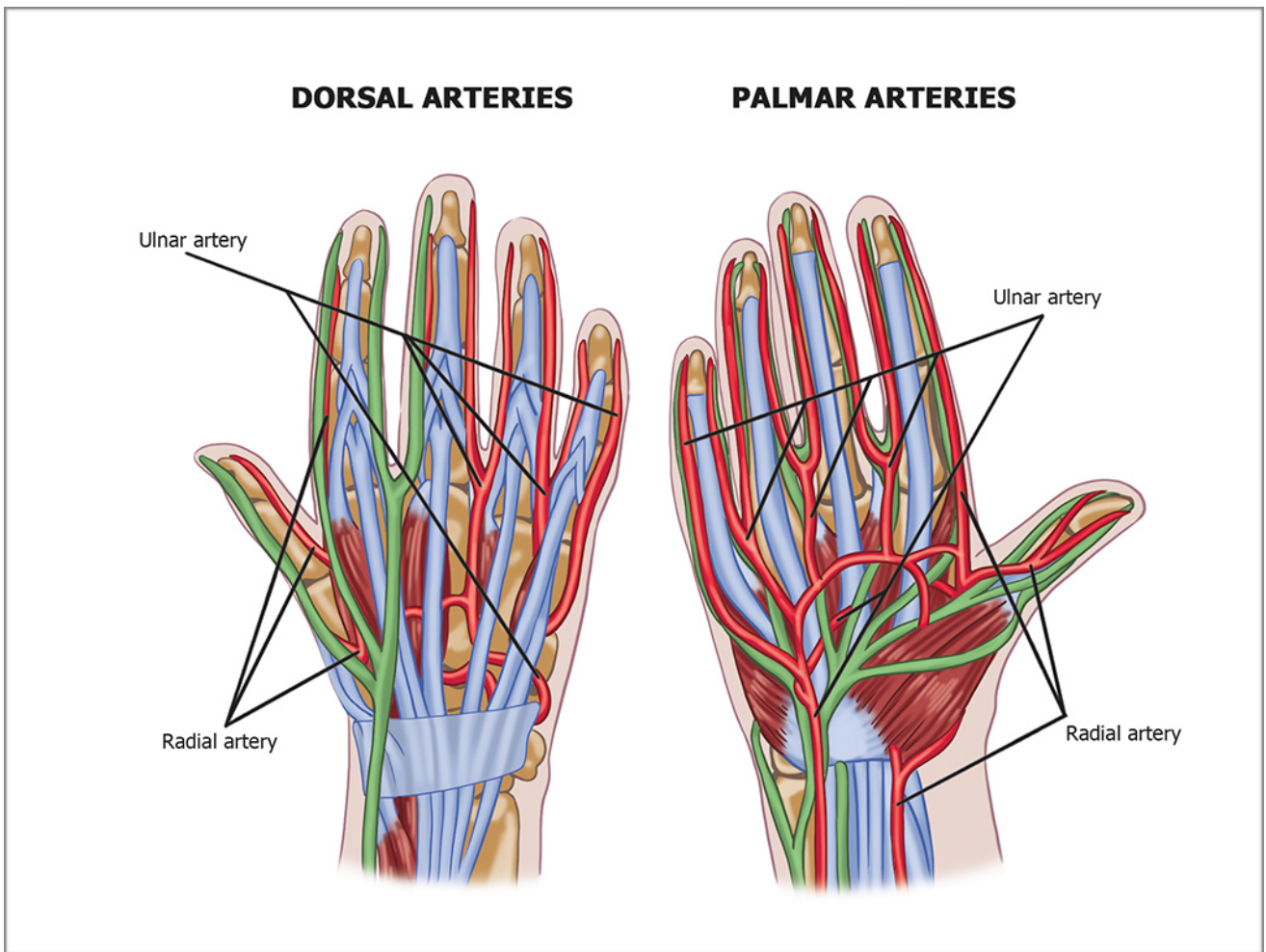
The tendons that run down our fingers are held in place by a series of ligaments that arch over the tendons forming a kind of tunnel. These tendons also act as stabilizers.

Hand Ligaments are the tough bands of fibrous tissue that join bones together. In the wrist there are six major ligaments to give stability to the wrist and these joint with others to link the wrist to the hand.

As the bone structure of the wrist and hand is very complex, so too are the supporting ligaments.



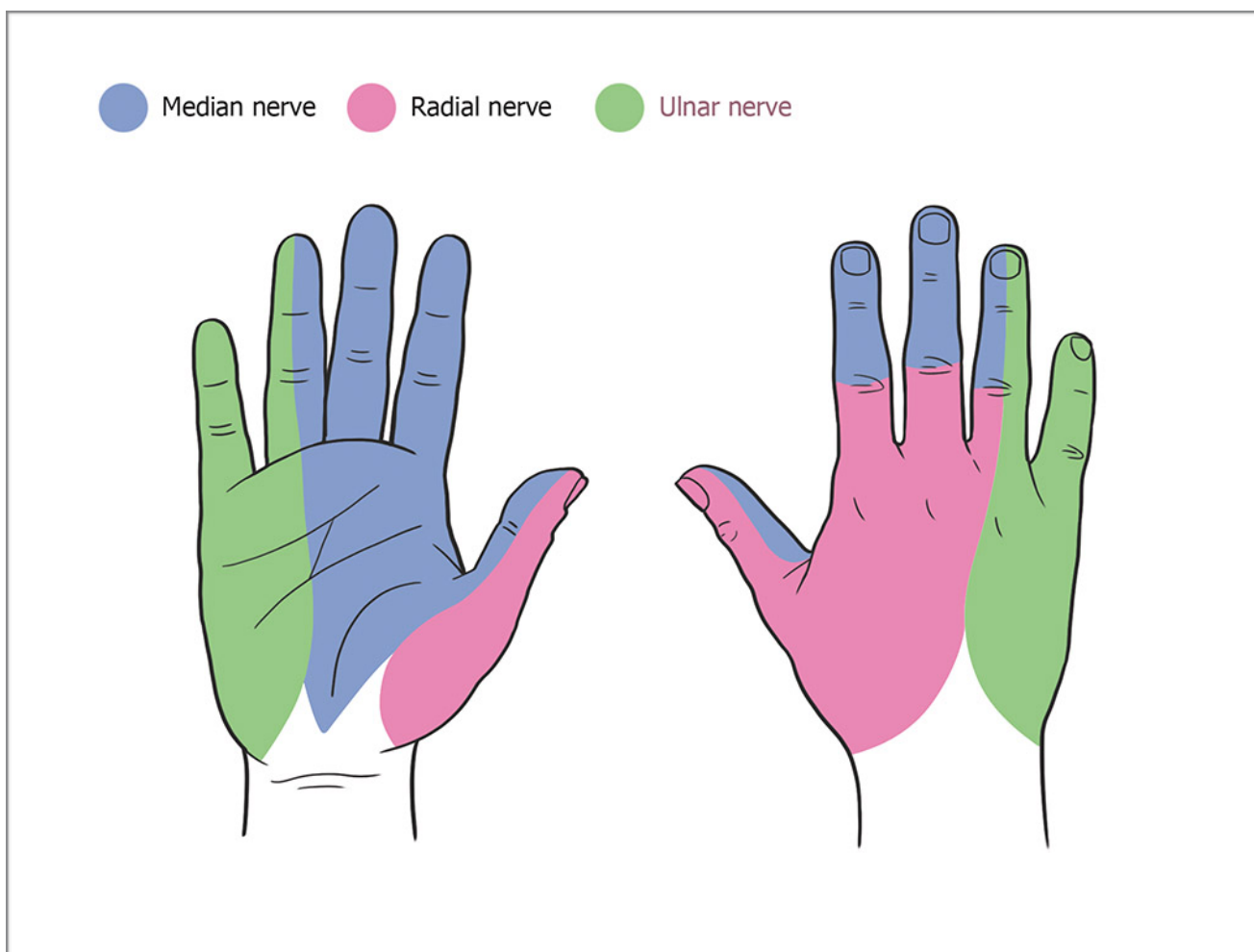
The hand of course has a very rich blood supply, we can do finger prick blood tests for some things and this also keeps our hands warm and the tissue well. You should consider the blood supply system to the hands as you work, note where the key arterial supply lies within the hand.



In addition we also have a rich supply of nerves to the hands, if you look at someone reading braille, the detail at which they are picking up the signals from the raised dots is incredible and it's the rich nerve supply in our fingers that makes this possible. There are three main nerves that serve the hands; the median, ulnar and radial nerves, each serves a different area of the hands and wrist as shown below.

These nerves not only help us to feel our way through the world but are also our sensors for hot and cold and for pain. If you get a tiny paper cut at the end of your finger it's a good way to know that there are lots of very well connected nerves there!

The three nerves serve different areas of the hand and wrist as shown in the colour coded diagram below.



And of course there is the outer covering of our hands, the skin. There is something quite unique about the skin on our hands: The palm of the hand doesn't contain melanin (skin pigment) or hair follicles. The only other place on the body that lacks both of these is the sole of the foot. These two surfaces also have thicker skin than other places of the body.

Fascial connections

Now that is where hand anatomy used to finish, you could of course go into much more detail about any of these structures, you could spend a long time just studying the complex anatomy of the hand – but there is more.

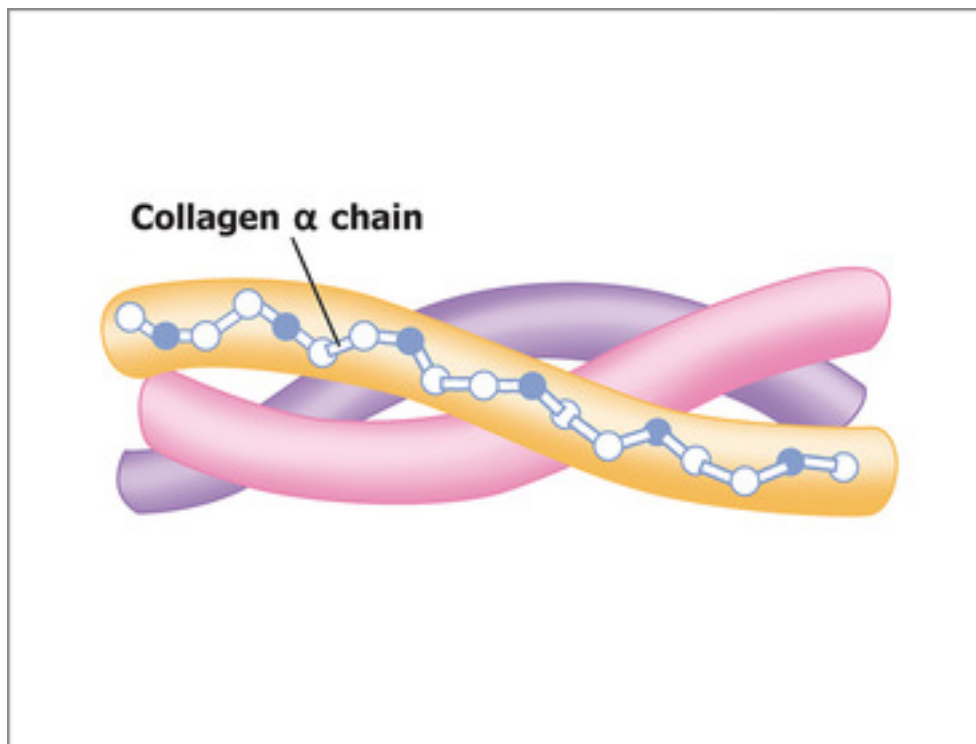
Some people will look at the hands in the same way they do with feet and see a whole map of the body and hand reflexology, or zone therapy, is a whole separate subject. Here the belief is that every single part of the human body is connected through the nerves through feet and hands. There are at least 34 acupuncture points in the hand – they are just the ones I am aware of – including some very powerful individual points.

Six of the meridians used in acupuncture and acupressure run through the hands; the lung, large intestine, pericardium, triple burner, heart and small intestine – with the other six running through the feet. So if you bring any Eastern understanding into your practice you will also understand how the hands can be important in the movement of energy. This isn't something we will go into in a great detail here – but be aware that, whether it is part of your practice and understanding or not – you may be accessing a lot more than just muscle, tendon and nerves when you are working on the hands. If your practice is based on Eastern understandings then equally you should be aware of the structure and anatomy of the part of the body you are working on.

Then there is deep fascia. Our understanding of fascia has developed significantly in the last couple of decades. Fascia is defined as a sheet or band of fibrous connective tissue enveloping, separating or holding together muscles, organs, and other tissues of the body.

Fascia is connective tissue, but NOT all connective tissue is fascia. I'm not talking here of the adipose layer, or the superficial fascia which is a great holding point for fat, obviously for most people the amount of fat in our hands is fairly minimum. There is then what US anatomist and dissector, Gil Hedley, refers to as "Filmy fascia" and then there is deep fascia.

This deep fascia, is collagen based as is much connective tissue – collagen is one of the most common proteins in the body.



Collagen fibre is a spiralled, triple helix that doesn't form straight lines, but instead creates multi-directional layers that allow movement in lots of different directions. Collagen is a strong material, ounce for ounce it is stronger than steel. As we age we produce less collagen – which can often first show in our bodies on our faces and which is why the beauty industry is a multi-million dollar business aimed at limiting the visual impact of collagen reduction in the fine lines and wrinkles – which only go on to be deep lines and wrinkles as we age further!

As we are starting to understand more about fascia, and especially about deep fascia we can gain more insight into its power and strength. The current understanding is that deep fascia is a continuous and integrated whole. It wraps around pretty much everything within the human body. It helps give strength and integrity to muscles, creates separation from different parts of the body, allows us to flow in our movements – it is an amazing interconnected and integral part of our body.

There are some really exciting studies in the role of deep fascia going on within the bodywork world and if this is something that interests you do delve further, there is so much more than we can go into detail about here.



I had the privilege of working with Dr Gil Hedley in one of his integral anatomy classes where, as a group, you dissect a donated human form, it is a beautiful, complex world that it seems there would never be enough time to understand fully – but we can learn from those dedicated to this. On the last day of the course we got to explore in depth anything we were specifically interested in and for me that had to be the hand and arm.

I spend so long in my practice massaging hands that I wanted to know what lay beneath. Of course there was the expected anatomy, the bones, the tendons, the ligaments etc – but there was also this wonderful world of deep fascia. Dissecting the palmaris longus muscle where that pink muscle became white tendon – and under a magnifying light and a sharp scalpel I unwrapped 15 layers of deep fascia, similar in appearance to cling film, cling wrap, it held the muscle together, without it the muscle had no strength and I could run my finger through it. This deep fascia then carried on, around the tendon, into the hand and the fingers.

We raised a question earlier as to why we massage the fingers when they don't really have any muscle in them – well it's because of this interconnectivity. Of course, we can't massage bone – but we can work on connective tissue – not the same as we do muscle, but we can start to get things moving higher up in the body, in the arm, the shoulder, the back, the neck – by working on this connective tissue in the fingers and then the muscle – and of course the connective tissue - in the hands. It's not something as yet we might fully understand – and medical science is still discovering more about this.

But – from a Western perspective we are working on a whole range of tissue – and from an Eastern perspective we are working on the meridians through which our energy flows (or gets blocked) – so whichever perspective you come from – we need to be massaging those hands and in much greater detail than many of us will have been taught in school.

Contraindications

There are some contraindications to consider for hand massage

1. The usual rules apply about not working over any tissue that is swollen, inflamed or infected – this could cause more damage so needs to be avoided.
2. Avoid working on any skin which is cut or damaged, if eg someone has eczema – if it's just dry then just use more oil or cream but avoid an area where the skin is broken as you could introduce infection.
3. Do not apply any pressure on the soft V between the thumb and first finger close to the finger on anyone who is pregnant, in acupressure and acupuncture this is the Large Intestine 4 point, also known as the great eliminator and is contraindicated during pregnancy.
4. Avoid putting any pressure onto the side of the nail or the nail bed – this will cause unpleasant pain.
5. If someone has a wart on their finger, you want to avoid any direct contact with that as they can be highly contagious so asking your client to wear a band aid or Elastoplast, or you wearing gloves can provide the skin barrier that you need on that occasion.

Practical work

Please refer to the course book chapter two. This will give you a detailed reference to supplement the video material from the course. You will also see in the other chapters how this hand work can become important in other aspects of your upper body work.

Try to practice on friends and family members before building this detail into your practice. It takes time to develop the precision needed and to check your depth levels when you are working on the hands in this level of detail, you should always be working within the client's tolerance levels.

I hope you very much enjoy this new aspect of your work. When introducing clients to this work for the first time, they may question why you are spending so long working on their hands. It can help you explain the benefits by working one hand first and then pausing and asking them to open and close both hands, they should feel the difference between the two.

Remember you can also diversify your treatment menu by adding a discrete 30 or 45 minute hand treatment and giving a separate price for this. It works well both as an individual treatment as well as being an integral part of a lower or full body treatment.

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