Pain

By Stanley Rosenberg

Treating Pain

The hope of being free of their pain is the reason that many people seek various forms of body therapy such as massage, cranio-sacral therapy, tensegrity, neurodynamics, etc.

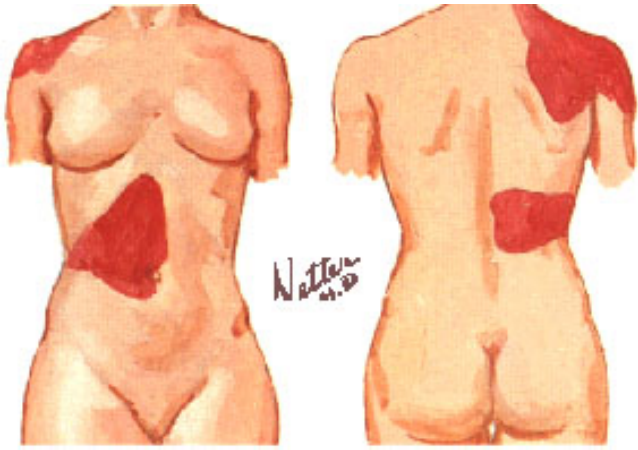
The client knows where it hurts, but should the therapist always focus their attention and techniques where the client says that it hurts?

When I started with full body massage on the muscles many years ago, I assumed that I should work where it hurt. I had a certain level of success.

As the years went by, I came to trust more and more that there is important information when the client tells me where it hurts. But in some patterns of pain, I came to treat their body at places other than where they said that it hurt.

Referred Pain

With "referred pain", the person feels pain at one place and the cause of the pain is somewhere else. For example, here in the drawing to the right, you can see a referred pain pattern that appears in the right shoulder. This pain does not come from the muscles of the shoulder, but rather is indicative of tension or dysfunction in the liver.[1]



In a similar way, sometimes a feeling of pain in the left shoulder comes from a dysfunction of the spleen. (There is not a drawing of this pain pattern here.)

Treating the shoulder muscles in either of these two cases will not make the pain go away.

In our course in visceral massage (organ massage), we diagnose and treat tensions in the connective tissues relating to the spleen and liver.

Trigger Points

Dr. Janet Travel and Dr. David Simons collected a lot of information about trigger points in two definitive volumes, "Pain and Myofascial Dysfunction: the Trigger Point Manual"[2]. At the heart of their method, they contend that there are one or more areas on the surface of the muscle which tighten more than other places in the muscle. With palpation, the practitioner can feel these little areas as being harder or less elastic than the surrounding tissue.

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[1] This drawing is from Frank Netter

[2] book published by Williams and Wilkins

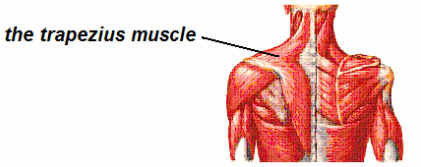
In some cases, the client is aware of pain in these points. In other cases, the client is not aware that these points are sensitive or painful until the points are pressed firmly by the therapist.

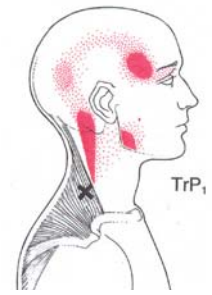
In their work, Travel and Simons make two observations which I find are of interest for body therapists trying to learn how to alleviate pain.

> 1) The most effective place to treat the pain is sometimes in the painful area, but it might also be somewhere else: the pain might be caused by a tight muscle which is at a distance to the area where the pain appears.
>
> 2) Rather than spend a lot of time massaging or kneading the whole muscle in order to bring about a lasting relaxation to the entire muscle, it is usually sufficient to spend a very short amount of time stimulating these trigger points.

If you want to fire a rifle, usually squeezing the trigger with a small amount of force is enough. You can use a lot more force hitting or squeezing other parts of the rifle, but it will not fire. Knowing the location of trigger points in the various muscles can save you a lot of time and increase the effectiveness of any massage treatment to relax tense muscles, improve movement and balance the body.

Here, on the right you can see a drawing of the trapezius muscle. Therapists often massage this muscle to release shoulder and neck tension.





The next drawing on the left showing the trapezius muscle is from the book by Travel and Simons. The area of pain as it is experienced by the client is in the areas colored red. The trigger points are marked with an "x". [3]

Looking at the drawing, you might be surprised to learn that tension in the trapezius muscle is often the cause of headaches, including some forms of migraine.

You can also see that the trigger point for this part of the trapezius muscle is found at a different place than the area of pain. For many muscles, one or more of the areas of pain are not even over the muscle itself. In these cases, massaging the painful area will not get the trigger points and usually will not be very effective in releasing the pain.

If you massage the entire trapezius muscle, you will also press the trigger points and release the tensions in the muscle. However, if you know your trigger points, you can massage only the trigger points. You will save a lot of time and get pretty much the same result as working the whole muscle. We introduce trigger points on our basis course, Rosenberg Technique of Connective Tissue Release, Face Lifting Massage Technique, and Ida P. Rolf Method.

It is very common for the therapist to dig their thumbs and fingers into these shoulder muscles, to squeeze and to knead. This kind of stimulation gives immediate relief. However, usually the tightness, stiffness and pain return in about a day and a half. The reason that the relaxation of the trapezius muscle is usually not lasting is because the cause of the tension is not found in the muscle itself, but from dysfunction of the nerve which feeds these muscles.

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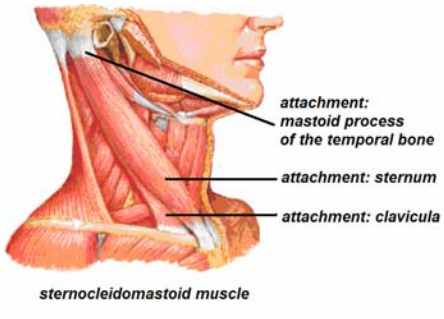
Nerve entrapments can be the cause of tension and pain.

In some cases, muscle tension and pain are due to an interference of the nerve relating to the muscle. This pressure on the nerve in rare cases comes from being squeezed between two bones. Usually, it comes from pressure on the nerve from the surrounding soft tissue, i. e., muscles and tendons.

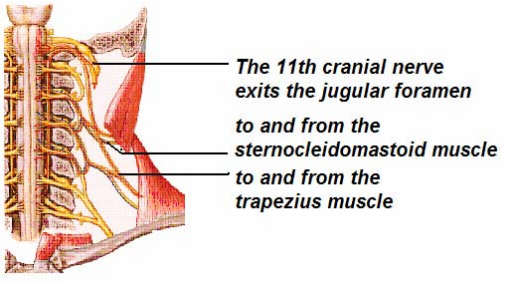
The nerve to the trapezius muscle is the 11th cranial nerve. Another muscle gets its signals from this same nerve: the sternocleidomastoid muscle. n the drawing to the right, you can see that the muscle attaches to the top of the sternum (breast bone), to the clavicula (collar bone) and to the mastoid process of the temporal bone just under the ear.



People often complain of pain and tension in their shoulder or neck, or of tension headaches coming from the trapezius muscle or the sternocleidomastoid.

To bring about a more lasting release of the pain and tension to these two muscles, requires improving the function of this 11th cranial nerve. This nerve has several branches. These branch from the spinal nerve at the top of the neck. Some of these branches enter the skull and exit again through a small opening between two cranial bones (the occipital and temporal bones). This opening is called the *jugular foramen.* It is about a centimeter long and about 2.5 millimeters wide.

It seems as if pressure on the nerve from surrounding soft tissues (muscle and connective tissue) can cause in pain and stiffness in the two muscles. The 11th cranial nerve after it leaves the skull has a core of nerve cells surrounded by an insulating layer of connective tissue cells. The blood supply to the actual nerve cells must pass through the surrounding connective tissue sleeve. Perhaps dysfunction of the 11th cranial nerve and resulting tightness in the muscle stems from a diminished supply of the blood flow to the actual nerve cells from this pressure of the surrounding tissues.



Usually, you can help the client to dramatic and more lasting relief in the tension in their trapezius and sternocleidomastoid muscles by realigning the first vertebra (atlas) in relation to the bone at the base of the skull (occipital bone). This joint between the first vertebra (atlas) and the base of the skull (occiput) is called the *atlanto-occipital joint*.

Most people have a rotated first vertebra of the neck in relationship to the base of their skull (occipital bone).

In our school, we teach a light touch, safe, simple and effective technique to release this joint. In fact, this is the very first technique that we teach on our first cranio-sacral therapy courses. You will also find a description of another safe and gentle way to realign this joint in the first chapter of my “Lærebog I KST” (Study Manual for cranio-sacral therapy). You can download this chapter free from my webside: www.stanleyrosenberg.com .

It is a tempting for therapists with training in other forms of body therapies to work deeply under the base of the skull to try to release the small muscles there (the sub-occipital muscles) with the hope of realigning the atlanto-occipital joint. These small muscles connect the occiput, to the first vertebra (the ***atlas***) and to the second vertebra (the axis) as well as the first and second vertebra to each other.

However, based on over 25 years of experience, I cannot stress enough that working deeply under the edge of the skull usually helps very little and actually causes more problems for the clients than they had when they came. Xxx (drawing of the muscles.)

The person might feel a bit tired, stressed or disoriented. Usually, the negative side effects from working deeply under the base of the cranium go over by themselves within 36 hours. Many therapists mistakenly and unknowingly tell their clients that these symptoms are a "positive" sign of the "cleaning out the body" when in fact they were caused by working deeply under the base of the skull.

Occasionally over the years, I have had clients or people calling on the phone who have been seriously disturbed by deep massage in this area by an ambitious, enthusiastic and uninformed therapist treating. Over the years, I have had two people who told me that were admitted in the emergency ward and hospitalized in the intensive care unit for several days. I also had one woman who in fact lost her sight in one eye. She had previously had eye surgery reattaching her net hind. The therapist worked deeply at the back of her neck, up and under the bottom of her skull. She screamed in pain and the therapist told her that this was a sign that he had found the area of maximum tension in her neck. Then she started to cry - he told her that it was good that she was in touch with her feelings. Then she realized that she was blind in the one eye.

I have great respect for these sub-occipital muscles. With our techniques, we release them gently and indirectly. We work on nearby reflexes, but never attempt to work directly on the muscles themselves.

You can read more in detail about my reasons for this in my chapter on the *rectus capitus posterior minor* muscle.

However, in many cases, it is not enough to realign the atlanto-occipital joint to completely release these two muscles in the shoulder and neck, the trapezius and sternocleidomastoid muscles. It helps for the short term, but the effect is not as long lasting as one could wish. It is often necessary to release tension in the area of the jugular foramen where the 11th cranial nerve exits the skull. This opening, the jugular foramen, is the one small part of the long and complex joint between the occiput and the temporal bones in the base of the skull.

In our fourth level course in cranio-sacral therapy (KST III+), we teach how to test if the jugular foramen needs to be released. We also teach a simple technique to release the jugular foramen.

In one of our advanced courses in cranio-sacral, KST IV, we teach an even more specific and more effective release for the jugular foramen.

A "pinched nerve" is often incorrectly assumed to be the cause of some kinds of pain

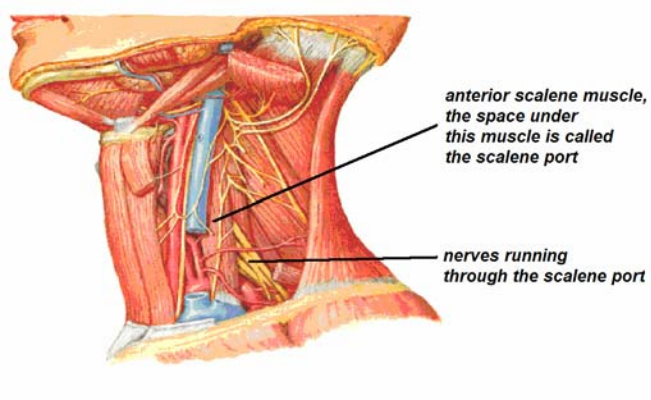
When people have pain, tingling or loss of sensation in their arms or legs, the diagnosis by medical doctors and orthopedic surgeons is that a nerve is pinched due to calcium deposits which they see on an MRI scanning. They call this spinal stenosis. Because of these mineral buildups, they claim that there is not enough room for the branches of the spinal nerve, where they pass through the space between two vertebrae. On an x-ray or scanning, it looks like the two bones "pinch" the nerve.

Sometimes, when this diagnosis is given, an operation is prescribed. The idea is to chip away at the extra calcifications of the bone in order to increase the size of the space between the two vertebrae.

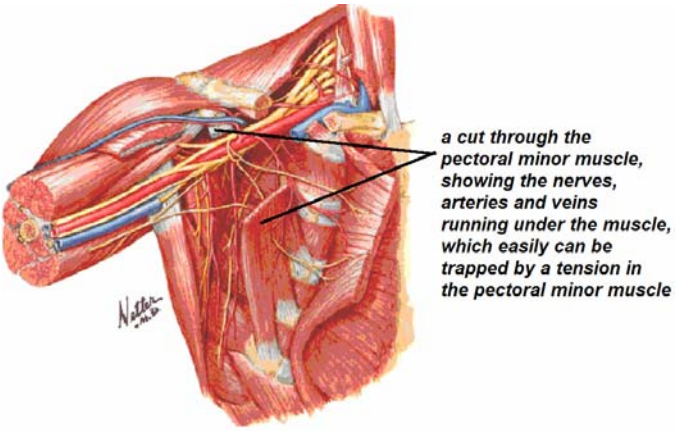
However, there are other possibilities, less invasive ways to treat a "pinched nerve". I believe that the space between two vertebrae diminishes because one vertebra rotates and tips in one direction while the other vertebra goes in the opposite direction. Muscles and ligaments connect the vertebrae to each other. Massage on the muscles, ligaments and nearby connective tissue can often realign the two vertebrae, widen the space between the vertebrae and take the pressure off a "pinched nerve".

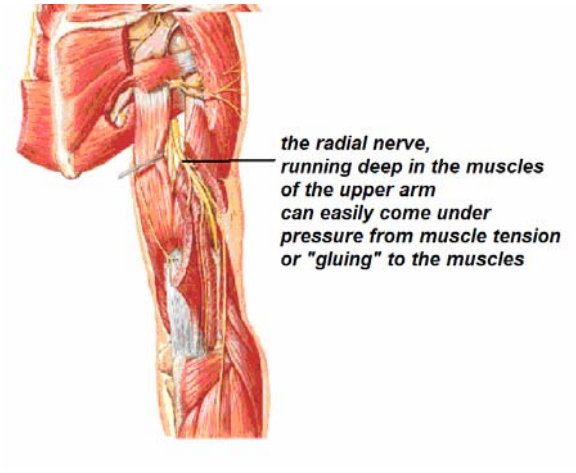
Some nerves can be trapped at places in the muscular-skeletal system other than between the vertebrae. For example, many people suffer from nerve dysfunction in their arms. They have an unpleasant tingling sensation, or a feeling of numbness or shooting pains.

Often, this condition can be released by working in the neck in the scalene port (in the connective tissue running under the deep, scalene muscles). To say this more simply, releasing tension in the scalene muscles often helps this condition.



Other times, the pain can be released by working under the *pectoral minor muscle*. Several of the nerves run under this muscle on their way to the arms.





You can sometimes find pain or dysfunction of a nerve which is under pressure from surrounding muscles or ligaments. The nerve need not be “pinched” between two bones. If the muscles put pressure on the nerve, they can reduce the blood supply to the nerve itself causing dysfunction or pain.

For example, the nerves to the arms and legs are made up of two layers – the deep core of the nerve cells themselves and an insulating layer surrounding the nerve cells. This tissue surrounding the nerve cells is a form of connective tissue and it is called perineural tissue. (***peri*** = around, ***neural*** = nerve)

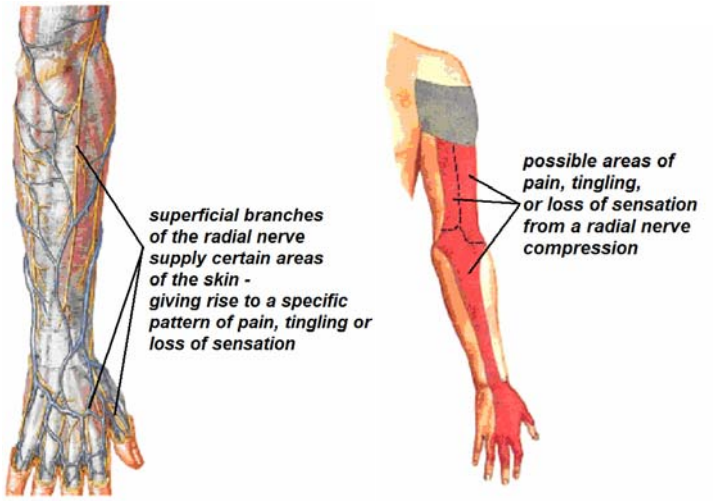
Blood vessels feeding the nerve cells themselves are embedded in the perineural tissue. If the insulation is squeezed, it can result in reduced to the blood supply to the nerve cells. This pressure can both starve the nerve cells of nourishment and it can impair the possibility for the nerve cells to eliminate their waste products which are the byproducts of normal cellular metabolism.

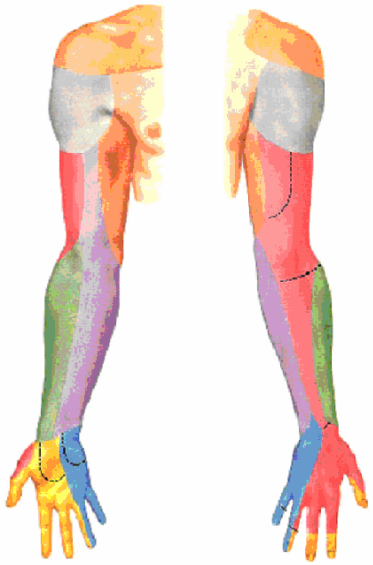
From these examples, it should be easy to understand how pressure from tension in the soft tissue can cause dysfunction, i.e. pain.

Releasing the muscle tension around the nerve increases blood supply. In many cases, this is enough to erase pain and improve the function of the muscles. I have saved many people from operations where the surgeon proposed chipping away the build up of calcium on vertebrae which were assumed to be pinching the nerve and causing the pain.

Pressure on the deep nerves often creates dysfunction in the more superficial branches of these same nerves causing pain, tingling, or loss of sensation.

Let us take a closer look at one of these nerves, the radial nerve:




areas of superficial pain, tingling or loss of sensation from the radial, medial or ulnar nerves

We focus on diagnosis and treatment of these kinds of pain from dysfunctional peripheral nerves in the arms and legs on our course in “Neurodynamics”

Nerve Root Compression - Pain from the center out

When the nerve exits the spine, it is called a nerve root. This nerve root quickly branches. The branches of the spinal nerves go to different kinds of structures, for example some go to muscles, some to areas of the skin and others to areas on the surface of the bone. A branch going to a muscle is called a “myotome”, a branch going to an area of the skin is called a “dermatome”, and a branch going to an area of the skeleton is called a “schlerotome”. In addition to this, some of the nerve roots have branches to some of the visceral organs of the body (e.g. stomach, heart, spleen). They are called visceratomes.

If the nerve root is compressed, it can lead not only to pain and dysfunction in the branch of the nerve from the nerve root on its way to the skin, muscle, areas of the skeleton or the visceral organs, but it can also lead to pain or dysfunction in the organs.

Usually, in dealing with musculoskeletal pain, massage therapists focus primarily on the muscles (mytotomes). Many years ago, I co-authored a book, “Osteomassage,” together with an American neurologist, Dr. Ron Lawrence. (The book was translated into Danish under the title “Knoglemassage.)

In the book we showed how to effectively reduce pain by using finger pressure to stimulate the nerve endings in the periosteum. (The periosteum is the living, connective tissue covering surrounding the bones).

Today, I believe that stimulating and improving function in any of the branches (dermotomes, myotomes, schlerotomes or viscerotomes) of a spinal nerve will have a positive effect on all of the other branches of the same nerve root. In fact, this observation can lead to a new way of opening the to release tensions in the body.

Nerve Root Pain – from the periphery back to the center

Trauma, dysfunction or tension in a peripheral structure (dermotomes, myotomes, schlerotomes or viscerotomes) can sometimes be the cause of pain in the area of the nerve root next to the spine. For example, a problem with the stomach can sometimes give nerve root pain in the on the left side in the middle of the back (in the area of the 8^{th} thoracic vertebra).

Can Pain Be Found Other Places in the Body?

Over the years, I explored various forms of body therapy, learned new techniques, and deepened my understanding of anatomy. I have gotten more and more of a picture of how to recognize and how to treat various kinds of pain.

These possibilities discussed so far for treatment of pain are taught in some but not all schools of massage and body work. My impression is that many most people doing various forms of body therapy know about some of these approaches. But most people do not know about all of these possibilities, even though that some of these practitioners have been doing body therapy for many years.

In some cases the pain in the body still persists, in spite of good therapeutic work with techniques based on the above approaches.

Fibromyalgia – pain that is all over or wanders around the body

The standard medical method used to diagnose fibromyalgia is to press 22 points in the body. If the person has pain in 13 of these places, then they are given a diagnosis of “fibromyalgia”. The patient is usually aware of pain in only a few of these points. Pain shows up in some of the other points when they are pressed.

For a therapist, a patient with fibromyalgia can be baffling. The therapist works to handle the pain in one area. The client with fibromyalgia almost never acknowledges that they feel better. But the client immediately complains that they now feel pain somewhere else. The therapist chases the elusive pain from place to place all through the body, session after session.

Rather than looking at the places where the client with fibromyalgia feels pain, or thinking about relieving the local areas, it is helpful to consider the possibility that the client might be in a chronic, parasympathetic state. Many women who have been in an automobile accident and sustained a whiplash type of injury have this condition. Treating them successfully for whiplash often gives relief to the fibromyalgia. Success in treatment of fibromyalgia requires restoring function in cranial nerves V, VII, IX, X and XI.

We have good results with lifting people out of parasympathetic states with our Social Engagement Protocol which we teach in KST III+.

Tensegrity, the living Matrix and Continuum

The underlying idea for the approach to body therapy taught in all of the courses at our Institute includes a connective tissue model for understanding the structure of the body. Most people doing massage,

chiropractic and orthopedic surgery develop their ideas of the body by focusing on other structures of the body, i.e. muscles, bones and ligaments.

They overlook the connective tissue system. Compared with other systems of the body, usually very little is written about connective tissue in most anatomy books. In standard anatomy books, there are relatively few drawings of connective tissue. This is because it is almost impossible to draw.

In the gross dissection labs in anatomy classes, the connective tissue is scraped away so that we can more easily see (and then draw) the muscles, bones, ligaments, blood vessels and nerves. More than half of the body is connective tissue. This is carefully scraped away and thrown into the waste bins when we prepare a body to make photos or anatomical drawings.

If we begin with the traditional study of anatomy as background for our massage or movement work, we miss everything about the function and structure of connective tissue. We ignore the more than half of the body which has been tossed away into a waste basket.

However, since Ida Rolf began her pioneering process of connective tissue massage (in what has come to be called “Rolfing©”), there has been a spreading of the idea of possibilities from working on the connective tissue. In fact, connective tissue release is surprisingly effective to bring about structural improvements in the body.

Connective tissue massage is taught in more and more schools. Some connective tissue techniques are called “myofascial release.”

Jim Oschman, is the author of the books “Energy Medicine”. Jim calls the connective tissue continuum in the body “the living matrix”.

We originally learned a way of working with this living matrix from Alain Gehin, who called his approach tensegrity. Because all of the structures of the body are energetically and mechanically interconnected with each other by this living matrix, you can locate where the shocks are held in the body and release them.

You can sense where the body is elastic and where it is stiff - not from direct pressure as in ordinary massage, but by working from a contact point at a distance from the trauma. The therapist either pulls or compresses the tissue while being sensitive to the body’s response to his actions. The trick is to anchor the focus of the work on the exact point where the resistance is at its maximum. When you find that exact spot, the body can respond by letting go of the tension.

In our school, Jakob Mikkelsen has refined the teaching of the tensegrity techniques even further to make it easier to learn and more effective. The therapist uses a whole body approach to localize the place which will release the whole pattern of tension.

There is a form of movement called Continuum, which was created by Emilie Conrad. People move themselves, sometimes making sounds, in order to liberate the movement in the connective tissue. Although this is hard for me to explain in a few words in this article, I can refer you to her web site. www.continuummovement.com. If you ever have a chance to take a class or private sessions with an authorized Continuum teacher, you might well enjoy the positive benefits from this simple and effective approach to renewing the connective tissue system of the body.

Releasing pain in the synapses in the brain

I have recently discovered yet another possibility for treating pain which fascinates me greatly these days. It lies beyond these "standard" approaches listed above.

I am working with positive results with a special technique to directly affect the nerve synapses in the brain itself. A synapse is a junction of two nerves. I have been inspired to explore this approach from my looking at some drawings from a course in German New Medicine which was developed by a German oncologist, R. Hamar. Whereas his approach to understanding the cause of disease is controversial, the drawings inspired me to find a new way of working on pain in the body.

I have found that in some cases, working energetically on the synapses and nerve endings in the brain can bring about pain relief when all of these other approaches discussed above have not worked or have only been partially effective. In my explorations of these maps of the brain, sometimes, I started to treat the synapses first and found that it was not necessary to look anywhere else to bring about satisfactory pain relief.

(Some people in our school have already been introduced to it in November 2005 on "KST V" in Copenhagen and in one of the presentations of our children's course, "KST for Børn fra 0-2" taught by Karin Osric in Silkeborg.)

To people with pain,

Pain is information from your body to your awareness.

You have many choices to find relief from the pain.

You can take a pill and no longer feel the pain.

You can bite your teeth together and get on with it even that you have pain.

You can find a therapist who can interpret also can use the information coming from that pain and hopefully to get the cause, treat the cause and improve your health.

To body therapists

As body therapists, no matter how good we get to diagnose patterns of pain, diagnose them and treat them, there will always be pains that do not fit into anything that we have learned. These cases push us to keep learning.

Also, it is important for us to remember that we are not trained in medical pathology. It is best to encourage our patients to see their medical doctor if your efforts are not successful in a few treatments, or if people respond in unexpected ways. Pain can often come from pathology. We are not trained to diagnose for pathology.