Fascia Sound Massage

Reaching out to a fascinating internal network with sound

by Maria Schmidt-Fieber

Scientists have conducted research on the fascial network intensively since the 1990s. This is to be welcomed because – as we will see – this network is extremely important. It is a tissue of life and people have been working with it much longer than it has been in the focus of scientific research.

Photo: Maria Schmidt-Fieber

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Centuries-old methods viewed in a new light

Andrew Taylor Still[1], the founder of osteopathy, recognized fasciae as "layers" throughout the entire body as early as the 19th century and he described them as being outposts of the brain. He therefore instructed his students to treat these layers with the appropriate care and caution. The importance of these special tissue layers was also known in Rolfing, which was developed by Ida Rolf at the beginning of the 20th century, and in connective tissue massage, developed by Elisabeth Dicke (later in cooperation with Dr. Hermann E. Helmrich, MD) in the middle of the 20th century. By contrast, modern science, in its search for the smallest individual parts of the body, for a long time assumed that fascia was merely an unimportant sleeve that was removed to enable examination of the „important" tissue structures underneath it.

Through increasingly advanced examination methods, imaging techniques and measuring instruments, the fascial network can be captured and documented very well today in terms of quantity and quality. For example, we now understand the key importance of this network for our muscle functions. As a result, the once firm assumption that only muscles produce movement via their connection to nerves and brain is now undergoing a major change. Also, the effects of the fasciae on our organ functions and their connection with our emotions are gaining a broadened perspective. Serge Gracovetsky, a renowned former consultant to the medical department of the American space agency NASA - also known as a brilliant mathematician - received an award for the best presentation at the first international conference on the subject of fasciae at Harvard University in 2007. In his presentation, he lectured the audience on the absurdities of the traditional medical view of human beings, which considered only muscle strength and not the fascial network. He claimed that if the common theory which considered only muscles and did not take the fasciae into account were valid, the human body would simply burst apart upon lifting a load.

Research on fasciae has produced a wealth of scientifically substantiated findings. They shed new light on methods such as osteopathy, Rolfing and yoga, which to date have often been referred to as alternative or even esoteric practices. The findings also broaden the theoretical foundation of established work with sound and contribute to the development of robust explanatory models which help to explain the beneficial effects or special phenomena that are repeatedly observed (such as spontaneous healing).

The fascial network

A better understanding of fascia sound massage requires insights into this fascinating bodily network which I will describe briefly below. Already more than 150 years ago, the founder of osteopathy, Andrew Taylor Still1, referred to fasciae as a universal principle that occurs throughout nature and he claimed that fasciae occurred in humans, animals and plants and that they were present everywhere in the body, surrounding every muscle, every vein, every artery, every nerve and all organs. He explained that they contained blood and all other vessels and so many nerves that no corporeal atom of blood or nerve was lacking. According to him the transmitting fasciae contained uncountable cells, lymphatic pathways and nerves.

Today, white fibrous connective tissue and muscular connective tissue are considered to be fasciae. The fibrous connective tissue encompasses a very large group of tissue and it forms an intrinsically moveable network of many pulsating layers which are completely interconnected from head to toe. Starting directly beneath the skin - like an „inner" diving suit - and reaching into the inner depths of the body, it connects every cell, every muscle and tendon, bone, organ and vessel. It sends and receives messages from the brain and spinal cord. It is a continuous all-round network without beginning or end, it envelops and goes through our body like a 3D grid.

Components of the fascial tissue

The primary components of fascial tissue are fluid and collagen. Collagen is a binding agent that turns into glue when it is boiled - hence the term „connective tissue". Additionally, a large number of cells, sensory organs (receptors), blood, lymph and nerve endings have been discovered in this tissue. For example, there are more pain receptors in fascial tissue than in muscle tissue. The main cells of the connective tissue are fibroblasts which - depending on their task and function - appear in many different forms. In addition to the main component collagen, they produce a broad range of chemical substances and thus form the „matrix", the viscous basic substance of fascial tissue.

Fascial tissue performs various tasks in different areas of the body and develops different structures for these tasks accordingly. These structures range from solid, plate-like structures as found in the lumbar vertebral region and quiver-like casings around muscles and muscle fibre bundles right up to sheer, spider web-like structures around organs. If you have ever prepared a raw steak for frying, you

Photos: Sandra Lorenz

have held this tissue - and thus also a large amount of collagen - directly in your hands.

Carla Stecco[2], professor of anatomy in Padua, Italy, explains the structure, firmness and connections of the muscular fascial tissue to her students using the example of a citrus fruit. Directly under the rind there is a first visible layer which can be felt when peeling the fruit and which is firmly connected to the rind. Each individual segment of the fruit is enveloped by an additional layer that, in turn, is connected to the first layer. And within each segment, other small casings are visible which are also interconnected with the other layers. Figuratively speaking, the fascial network is interconnected and interwoven with all the structures in our body in precisely the same way.

The function of the fasciae

The functions of this universal connective tissue system are numerous and varied. It enables our stability and erect posture and, at the same time, our mobility. Throughout our entire lives, it adapts to our movement processes and patterns, shapes us and reacts to the way we think, act and feel. This mechanism of adaptation is maintained until the end of our lives, constantly adapting to the predominant basic moods and the preferred movement processes of the respective individual. The fasciae thus give our body its inner and outer form.

A further important function of the fascial network is to provide „packaging" for all bodily structures: a protective layer and casing that prevents damage from rubbing with adjacent structures. At the same time, it forms a conductive layer in which the vascular and nerve pathways can pass through the body without any major resistance. Due to the large number of nerve cells and receptors, it is also described as our largest communication network and largest sensory organ. This enables us to perceive and control our own bodies at rest and during movement at all times. For example: Where is my head? Is my back straight, rounded or hollow? Where is up and where is down?

Changes and disorders in the fascial network

The clear and elastic structure of this highly complex network changes e.g. with one-sided movements, lack of exercise, overexertion and also an unbalanced diet. The fibres that were originally soft and flexible harden, thicken, grow together, become matted and stick to one another. As a result, the metabolic environment and water content change, which leads to a higher degree of rubbing between the tissues.

I would like to draw your attention again to the image of a slice of citrus fruit in its original juicy state. When such a slice dries out it becomes rigid and hard. When I try to remove segments from this dried-out slice, I can feel how much they stick together and how hard they are. If we apply this image to the fascial network, it becomes obvious that the process of cell communication right down to the bodily functions is inhibited, disrupted and limited - with the respective consequences for nerve and organ functions, musculature, body posture and, ultimately, mental attitude.

Fascia sound massage

I have been working with Peter Hess® sound massage since 2000 and it is an important basis for my work focusing on „sound and bodywork". When I began to take major interest in the subject of fasciae towards the end of 2014, working with sound became more and more exciting for me.

Fascia research expanded my understanding of bodywork with sound

The results of research into this fine bodily network increased my understanding of my bodywork with sound immensely. The interplay between body and mind became clearer and anatomically even more tangible, especially through the scientific finding that fascial tissue transmits signals and messenger substances. For example, it reacts with tension to messenger substances released by the body under stress - an important finding for the stress and pain-relieving effects of attentive and gentle sound work. This quickly led to the question: How do sound vibrations work in the fascial network and how can I give targeted sound impulses that reach to the inner depths?

My starting point was the muscular part of connective tissue

Based on this question, my focus in the development of fascia sound massage centred on the superficial layer of this connective tissue network, in particular the function of the myofascial meridians described by Thomas Myers[3] and their communication via sensory cells (receptors). The sensory cells in the skin as well as in the entire fascial tissue register with their different qualities of perception all types of external and internal stimuli such as a light touch, pressure, movement, stretching, temperature and pain, and trigger corresponding signals. But our bodily system does not only react to (environmental) stimuli or the type of touch itself. The perception of these stimuli is also shaped by our individual and acquired way of processing them and our corresponding emotions through the limbic system in the brain. This means that the perception of a stimulus is also influenced by the situation of the individual, and emphasises the importance of a holistic and not isolated view.

Aim of fascia sound massage

As described before, a gentle approach was very important to me in order to avoid instinctive muscular defensive reactions as well as pain caused by (too much) pressure and pulling. From the very beginning, my intention and main aim in developing fascia sound massage was to apply targeted, clear and distinct sound impulses to this highly complex network of anatomical and physiological conditions and physical and mental relationships. The objective was to consciously direct impulses into this intricate network - in the sense of offering support - and then let it continue to work on its own. Impulses that

- elicit a direct relaxation response,
- affect the metabolism and functional mobility of the fascial tissue, and
- stimulate self-regulation and thus self-healing.

The therapy singing bowls developed for bodywork by Peter Hess are ideally suited for this approach.

Basics of fascia sound massage

In addition to established sound massage and related findings, other aspects that were helpful in the development of this special bodywork were insights into the visceral-peripheral relationships (viscera = internal organs, periphery = subcutaneous connective tissue) from Elisabeth Dicke's connective tissue massage in the 1950s as well as insights into the reflex associations between the periphery and internal organs as described by Henry Head (Head's zones) and Sir James Mackenzie at the beginning of the 20th century. In fascia sound massage, attention is initially focused on physical perception. The effect can then extend to the individual's personal situation via the body-oriented and body-related focus. Important basics for this work include:

1. Personal attitude

As in established sound massage, one's own attitude includes - in addition to an attentive and appreciative basic approach - a holistic view of human life and its intrinsic vitality (in ancient times "odem" (breath), in Sanskrit and yoga „prana"), in ancient China and traditional Chinese medicine „chi", and in ancient Japan „ki"). I refer to the vitalist model of thought (from „vita" = life), which goes back to Aristotle and features prominently, for example, in the teachings of Andrew Taylor Still and in homeopathic pharmacology. According to this model, the vitality of the human being as well as the body's wisdom and self-regulating powers are what make the functions of the organism possible in the first place.

2. Anatomical and physiological knowledge

This work requires relevant knowledge regarding the conditions and relationships of the fascial network and the body-mind system.

3. Targeted application of sound vibrations

For my work with sound vibrations, I use the sound massage method developed by Peter Hess. In this method, put simply, special therapy singing bowls designed for bodywork are placed on and/or around the fully clothed body according to a specific system and softly tapped in a rhythmic pattern. The resulting harmonious sounds calm the spirit, the mind comes to rest and attention is directed inwards. The even vibrations of the tapped bowl produce sound waves that are transmitted into the entire body via the corresponding sensory cells. Depending on age, the human body consists of up to 70% water, which conducts sound waves particularly well. Thus, the fine vibration impulses are spread out via the body fluids as well as via the receptors (sensory cells) into the organs, bones, muscles and tendons - into every cell. Many people describe this special stimulation through the sound vibrations as a very delicate massage, which gave rise to the term „sound massage".

In fascia sound massage, unlike established sound massage as just described, the singing bowls are not (only) positioned on certain parts of the body, but are moved on the body according to specific patterns. This is done with the aid of a so-called „suction lifter", which is available in various designs.

The suction lifter is attached in the middle of the singing bowl. This allows the practitioner to easily, slowly and evenly slide the resonating and vibrating bowl over individual parts of the body. The vibration impulses can be applied in a targeted manner. The fascial metabolism can be stimulated and thus influence elasticity, mobility and bodily coordination. And on the superordinate level, the self-regulating mechanisms can unfold.

By connecting anatomical and physiological conditions and relationships with a vitalist model of thought, I respect the holistic nature of human life, just as Andrew Taylor Still described it over 150 years ago with the words: „Trust nature to the end".[1]

In addition to the fundamental aspects described above, such complex work requires further basic rules - similar to those that apply to established sound massage. Most importantly, these include:

- a respectful, attentive and appreciative attitude
- togetherness in dialogue
- slow, gentle and even-paced work (effect on limbic system)
- a few clear and distinct impulses, so that these can be registered and processed clearly and distinctly by the bodily system ("less is more" principle)
- a preliminary talk clarifying whether and how a fascia sound massage may be offered
- observing contraindications

Photo: Maria Schmidt-Fieber

Photo: Archive Peter Hess® Institute

„Finally, an effective fascia massage that doesn´t hurt“

Photo: Maria Schmidt-Fieber

In any event, a practitioner's own profession and competence are crucial for deciding which offer may (and can) be made. In addition, to ensure responsible application, contraindications must be observed such as fresh or healed operation wounds, fever, acute pain, acute inflammatory processes, the first three months of pregnancy and - depending on the practitioner's training and competence - psychological disorders.

Effect of fascia sound massage

The sound vibrations and the continuous movement across the body generate vibro-tactile stimuli (vibro from vibration and tactile - the passive perception of the sense of touch). Some hypotheses about the effect of fascia sound massage can be derived from the findings of fascia research into the complex function and impact of this system, known relaxation responses, as well as research and experience with established sound massage. Scientific research studies are not yet available. However, a great deal of experience and feedback have already been gained from application of fascia sound massage in practice. The following effects are repeatedly described:

- Relaxation responses (physical, mental, emotional) are elicited.
- Relaxation is enhanced by an intense, relaxed bodily feeling and by avoidance of instinctive muscular defensive reactions.
- Muscle tone is reduced; the tissue feels more flexible and permeable (among other things, influence on fluid accumulation).
- Perception of the body becomes more focused, more sensitive and „more holistic“.
- There are measurable and noticeable improvements in bodily coordination and mobility.
- Chronic pain is temporarily reduced.
- Stability of the body increases.
- Overall physiological and structural interrelationship (functional adaptation) is perceptibly stimulated.

Experiences with fascia sound massage

My seminar participants working in the fields of physiotherapy, occupational therapy, massage therapy and/or as Peter Hess® sound massage practitioners and I myself have already observed many positive effects. It is very important to me that practitioners first experience the effects of this special bodywork on themselves and only then practise it with the necessary attentiveness and appreciation on others. Two typical examples of feedback from seminar participants (from medical professions and/or with sound massage training):

„Finally, an effective fascia massage that doesn't hurt!“

„I haven't had such an 'all-around' good feeling in ages.“

Seminar participants versed in work with sound often tell me that their experience with fascia sound massage differs from their previous experience with established sound massage. In particular, they describe a more intense physical sensation and say that symptoms begin to change rapidly.


Foto: Sandra Lorenz

A Peter Hess® sound massage practitioner told me after her first fascia sound massage:

„Days later I still felt strong vibrations within the layers. Everything was still vibrating and felt so three-dimensional. I don't know how else to describe it: somehow it made me feel more complete inside. In the sense of holistically connected."

At this point I would like to report on a seminar participant and three clients from my practice:

Case 1:

Sonja P., a trained sound massage practitioner, was still suffering considerably from the consequences of a physical assault she had experienced six months before she took part in my seminar „Fascia Sound Massage". Her whole posture was affected by this traumatic event; she suffered from diffuse physical problems and severe limitations in her range of motion in the back and neck areas. The neck brace had been removed only shortly before. During the two-day seminar, the change she underwent already became visible, as confirmed by other participants. She herself said at the end of the seminar: *„I can hardly believe how good I feel again."*. And after one week she reported back to me that her therapists were really surprised at the progress she had made since her last sessions with them a week before. Her osteopath was astonished at her physical permeability; her physiotherapist and her family doctor noticed measurable changes in rotation and coordination; and her psychologist immediately noticed her erect posture and the self-confidence Ms. P. had regained.

Case 2:

An adult client, who was born with an open spine (spina bifida) in the lower lumbar region, is very limited in her ability to walk, uses a wheelchair and has severe problems with bladder and intestinal functions. After each fascia sound massage, she has experienced an improvement in her bladder and intestinal functions and reported improved sleep.

Case 3:

Maria K., a client with multiple sclerosis (MS), severe balance and gait limitations, and dependent on aids such as a walker for mobility, was able to stand up straight on her own after the first session.


Photo: Maria Schmidt-Fieber

She could hardly believe how upright and stable her body felt. Only when I showed her a photo I took with my mobile phone did she believe what she felt. Her gait was also steadier, and two days later she was still able to climb the stairs in such a way that her son, who was visiting her, asked in amazement what she had done. As she lives far away she can only schedule a fascia sound massage at irregular intervals. She has reported since then that she can often enter "a state of remembrance" of this condition and the associated bodily stability by meditating.

Case 4:

For a client with limited mobility following a stroke, we tried an approach combining physiotherapy and fascia sound massage. Prior to every physiotherapy treatment of the arms and legs, a partial fascia sound massage was carried out. We wanted to test its effects on mobility and pain perception. Result: increased mobility, and the exercises were less painful. The client exclaimed in surprise *„I am getting much further than usual!"* The physiotherapist was also impressed (and now intends to learn the method).

Other frequently observed effects of fascia sound massage

Significant changes such as these do not occur all the time. Sometimes, it is „only" about physical well-being and being able to relax. Nevertheless, these examples show how profound the effects of a fascia sound massage can be. Further observations on the effect of fascia sound massage are available from occupational therapy and physiotherapy:

- **Psychosomatics:** Patients who have not been able to relax for a long time are able to do so by the second session at the latest. Patients gain confidence and a zest for life.
- **Neurology:** Symptoms reduced in patients suffering from Menière's disease with tinnitus.
- **Orthopaedics:** Complaints in the lumbar region reduced to such an extent that a patient's legs could be stretched out again while lying down; improved gait and finger extension in patients suffering from MS.

Gathering experience and continued learning

Fascia sound massage has already proved to be a very valuable addition to bodywork and many therapeutic professions. Since targeted impulses can be delivered painlessly deep into the body, it is also a good complementary and supplementary offer to support conventional fascia therapy forms.

As is the case with many other methods, fascia sound massage requires the active participation of the client/patient. It is not a „miracle method", and only if existing posture and movement patterns are reflected upon and actively co-developed can long-term effects be attained. The lifelong ability of functional adaptation requires regular active movement over a longer period of time in cases of already existing tissue changes. Most importantly, STRETCHING. And sometimes tissue changes have existed for so long and are so persistent that only a surgical solution will provide relief.

In order to document the wealth of experience with fascia sound massage and to learn from this together, I support all participants of my seminars in networking and exchanging information. Practical experience and feedback from fascia sound massage help to further develop the concept and to explore new application opportunities. Through cooperation with inpatient and outpatient pain therapy units, preparations are currently underway to investigate the effect of fascia sound massage on chronic pain and chronic wounds.

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