



# Myofascial Release Therapy

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*A Visual Guide to  
Clinical Applications*

Michael J. Shea, PhD  
*with* Holly Pinto

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*Biodynamic Craniosacral Therapy, Volume One*

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*A Visual Guide to Clinical Applications*

Michael J. Shea, PhD  
*with* Holly Pinto, LMT, BCTMB

 North Atlantic Books  
Berkeley, California

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# Introduction

## Holly Pinto

This manual serves many purposes for today's contemporary therapist. You can use each release found in the manual individually, or you can combine releases based on your assessment of the client and what might be indicated for your session. There are many great models of bodywork out there. Use this manual as another tool to add to your toolbox. It is more important to explore your own belief systems and biases. Then you can transition from one system of work to another staying in the rhythm of the client's nervous system, which in today's chaotic world is extremely important. Creating a safe therapeutic container to provide a skillful therapy session is the goal for a successful session. We hope you find this manual useful.

## Michael Shea

I learned a lot about fascia and its manipulation at the Rolf Institute between 1979 and 1982. The work presented in this book, however, is not Rolfing. I highly recommend anyone interested in furthering their knowledge of working with the fascia to take the training at the Rolf Institute in Boulder, Colorado. My clinical practice from the beginning included many orthopedic conditions and children with spastic cerebral palsy. I was not able to apply many of the principles of organization that I learned at the Rolf Institute, and consequently began modifying what I had learned in order to adapt to the needs of my clients, especially all the infants and children I was seeing. At the same time, I was influenced by other systems of fascial manipulation such as from the osteopathic community as well as numerous colleagues working in this field. The term myofascial release comes from the original fascial manipulation developed by the osteopathic community in the early 1950s. This text is about the adaptation I made, and that my dear friend and colleague Holly Pinto has made. It is still valid now as it was when I first practiced and taught it in the 1980s.

The first place I ever taught myofascial release was in the great state of Texas in 1987. Holly Pinto was one of my first students and has continued working with the material I presented, along with integrating her own brilliant clinical skills and knowledge base in myofascial release. I am greatly honored that Holly teaches this work and spent the time to thoroughly adapt this text to the needs of the contemporary client in 2014.

This book is divided into three sections. The first section has to do with anatomy and clinical considerations. The second section comprises a photographic atlas that is thoroughly annotated, so the contemporary therapist can use it immediately in their work. Sections titled "The Work" provide a condensed, quick review of most of the techniques, but are not a substitute for learning this work. It is important that each release is read in full detail. The third and last section is a series of commentaries and

essays that I wrote about my clinical experience. While there is some overlap and redundancy within these essays, they were originally intended as a stand-alone information guide to round out a person's knowledge base.

SECTION 1

# **Theory and Application**

## CHAPTER 1

# Myofascial Release: A Holistic Approach

*Although myofascial release concepts have been used for many decades, little has been documented or written about them. The system is a complex form of soft tissue manipulation based on the operator's ability to monitor functional, anatomic, and neurologic influences. Developed by American osteopathic therapists, myofascial release led, with important exceptions, to clinically pertinent, fascially-based discussions almost exclusively in the osteopathic literature, but only after 1950.*

(Ward, 1993, p. 225)

Still today, “the study of fascia and its function as an organ of support has been largely neglected and overlooked for several decades” (Findley & Schleip, 2007, p. 2). Recently, more attention is being placed on fascia and fascial research. The finest researchers and experts in the field of fascia gathered in October 2007 at the first International Fascia Research Congress. It was a sold-out conference in Boston at Harvard Medical School. The second conference was held in Amsterdam in 2009, the third was in Vancouver, British Columbia, in 2012, and a fourth is planned to be held in Washington, DC in September 2015. The focus of these conferences is to present findings on the latest research of the human fasciae system. “The Fascial Research Congress is the first international conference dedicated to fascia in all its forms and functions” (Findley & Schleip, 2007, p. 2).

Myofascial release is usually taught as a positioning technique or stroke intent. As a technique or intention, its primary focus is the soft tissues of the body, especially the fascia. The approaches are either direct techniques, such as Rolfing developed by Dr. Ida Rolf, or indirect techniques, such as muscle energy and strain/counter-strain (Greenman, 1989). When joint biomechanical rules, called arthrokinematics, are integrated into the treatment, the treatment is a myofascial manipulation. The presenting symptoms of the client, the physician's orders, and the evaluation skills of the therapists are combined to determine the techniques used. The continuity of treatment methods and strategies depends upon feedback from the client, clinical observations about the client's physical and emotional demeanor, and the subjective experience of the therapist. Although presenting symptoms and physician's orders are key factors, the background and training of the therapist influences the decision to use direct or indirect techniques.

Regardless of the direct or indirect myofascial techniques chosen, the basic question remains: How should these different techniques be organized for clinical effectiveness? This chapter looks at clinical effectiveness from a holistic point of view. Initially, it will consider the skills, rather than the techniques, of myofascial release. Next, the holistic principles of the fascia connective tissue are presented followed by a review of specific treatment strategies. The final review includes conclusions based on a holistic model.

Because a holistic approach to myofascial release is about skills, this chapter starts with skills and ends with skills.

## **Holistic Skills**

Listening to both the verbal and nonverbal aspects of the client's story is a primary skill in a holistic practice of myofascial release. Failure to listen carefully and sensitively leads a therapist to make judgments that are academic and lack subjective understanding of the unique story each client brings to the treatment room. A client's body can inform the therapist about many things that can only be found out by listening to the client's words (Maitland, 1986). Listening at this depth requires a therapist to commit time to the process and to offer belief to even the most subtle remarks. Every word and body movement has purpose as clients unfold their story for the willing therapist.

Listening at this depth requires a therapist to suspend judgment until the story is told. Leaping prematurely to the end with a quick fix negates the client's uniqueness. What is very real for the client may be completely irrelevant for the therapist unless the therapist shifts perception. This skill also includes uncovering meanings held within the client/therapist relationship. Both the therapist and the client have expectations for the therapy, some of which may be unspoken or even unknown at the time. A good question to ask is: What intention does the therapist hold for the relationship and does it match the intention of the client?

Many people feel that communication between people with the same language is fairly automatic and uncomplicated. However, as is well-known, many misunderstandings can occur. Communication is downright frustrating at times between people with different points of view, especially when conversations change and involve numerous concepts and ideas that may be foreign to others. If therapists are to understand the physical problems of their clients, they need to have a quality and depth of appreciation for the complexities surrounding both verbal and nonverbal communication. Paying attention to verbal communication and the links that it has to body sensation and posture is a refined skill in the holistic practice of myofascial release.

The human body has not only an exquisite capacity to adapt and compensate for stress and trauma, but also an inherent capacity to inform. The client's body can provide clues related to the problem that may never be found by the most thorough objective examination. The most common example of this is how often the presenting problem is linked to accidents much earlier in the client's life and/ or is coupled to current social and psychological relationships. If someone is being treated for injuries resulting from a motor vehicle accident, a surprising amount of information may be obtained by asking the client where he or she was going to or coming from at the time of the accident. The subtlety and interconnectedness of some of the messages coming from the client can be priceless. From a holistic point of view, the more clients are tuned into their body, the more they will become aware of such subtleties and relatedness. Thus, part of the role of the therapist is to educate the client to notice the little things and to report them to the therapist.

Another key in holistic myofascial release is developing appropriate and insightful skills of observation. Bear in mind that vision is formed by 80 percent of neuroassociation and networking within the brain and only 20 percent from the retinas

(Varela, Thompson, & Rosch, 1992). The implications of this may be clinically significant. It is quite possible to have many thoughts triggered by observing clients. Therapists may have theoretical notions about the way a body should look, move, and perform that fail to match the individual client. These preconceptions have the potential to influence the quality of the clinical work both consciously and unconsciously. Thus, skills of observation include looking at the client holistically. That is, seeing him or her as a whole person rather than a group of symptoms and being clear that the thoughts and ideas triggered by observing the client belong to the therapist, rather than the client.

Observation skills may alter the way myofascial release is practiced. Holistic observation skills are based on the self reflection of the therapist, with careful attention being paid to the therapist's sensations, feelings, and inner thoughts as he or she begins to resonate with the client. Heisenberg stated in his uncertainty principle that one cannot observe something without changing it. Is it possible that looking at a client in a clinical mode could change him or her? Meaning is uncovered by paying attention to the moment-to-moment experience occurring not only within the client's body and state of mind, but also in the body and mind of the therapist. Therapeutic clarity arises from this quality of attention, which is often referred to as presence and grounding.

Therapists have many nonclinical thoughts about the client (this person is attractive, this person looks sad, etc.) and about themselves (I'm tired, I'd like to go home, etc.). These nonclinical thoughts and associated sensations are usually considered an epiphenomenon (Sheets-Johnstone, 1992). Sensations and feelings are subjective and are often discarded as having little relevance to the client-therapist relationship in a treatment session. However, personal thoughts and feelings are important and have an impact upon the relationships therapists have with their clients. This involves the psychological issues of transference and countertransference between the therapist and the client. The self-reflection of the therapist helps determine the quality, quantity, depth, and duration of touch. For example, therapists may be distracted by events in their personal lives. Sometimes these distractions are carried into the treatment room and may cause a loss of attention on the part of the therapist and thus affect the quality of touch and the treatment outcome.

Related to the skills of observation is the development of a therapeutic sense of how clients hold their unique bodily experience. This sense is based in the aesthetics of balance, form, and shape. Of particular importance are observations of symmetry and of the pattern of nervous system arousal, settling, and resolution. Understanding the three-dimensional aesthetics of balance, form, and shape requires the development of seeing with soft eyes or wide angle viewing.

One mode of learning how to treat a client is through observing the symmetry or lack of symmetry in their musculoskeletal system. Symmetry is first and foremost a result of embryological development around a midline. The therapist looks at a client and notices that one shoulder is higher, one leg is shorter, one hip is higher, or the head is not on the midline. From an embryological and developmental point of view, the body was not designed to be symmetrical (Blechsmidt & Gasser, 1978). All bodies have intrinsic, natural, right-left, front-back, top-bottom splits in their symmetry (Dychtwald, 1977). The body actually develops in a spiral pattern that mimics the double helix pattern of DNA and RNA (Dart, 1950) around a midline. Rather than look at symmetry, the holistic therapist looks at the total form and balance of the client's body. This requires a

different kind of vision.

Observing the lack of symmetry may or may not provide accurate information about clients' orthopedic trauma. However, looking more closely at the background of the client's body helps develop what is called soft seeing. Soft seeing is a skill the therapist uses to track the client's central, autonomic, and enteric nervous systems and the role that these systems have in mediating stress and shock/ trauma in the client's fascia. Soft seeing includes observing skin color, postural tone, rapid eye movements, patterns of muscular contraction, micromovements (fasciculations) such as shaking and trembling, changes in breathing, voice patterns, sweating, and so on. These signals indicate arousal of the sympathetic nervous system. The client may be experiencing an affect or imprinting coming from their held states of stress and trauma (Levine, 1997).

The sympathetic and parasympathetic are the two major divisions of the autonomic nervous system. Clinically, sympathetic nervous system arousal is supposed to be coupled into the parasympathetic nervous system (Siegel, 1999). This means that both systems are designed to function reciprocally. The parasympathetic nervous system raises its tone as the client's vagal brake attempts to lower sympathetic nervous system arousal (Porges, Doussard-Roosevelt, & Maiti, 1994). The therapist observes the client's individual style of autonomic nervous system cycling from activation and arousal to settling and resolution. This observation of autonomic nervous system cycling will produce more clinically efficient outcomes from myofascial release. The therapist will be able to pace the input of the manipulation to match the autonomic nervous system style of the client. Soft seeing starts the moment a client walks in for the appointment and lasts throughout the treatment as the therapist concurrently tracks autonomic nervous system activity.

Recognition of sympathetic nervous system arousal is clinically important, as overexcitement of the sympathetic nervous system leads to hyperarousal and greatly diminishes the effectiveness of myofascial release. Clinical signs of sympathetic nervous system activation can readily be seen regardless of whether the client is sitting, standing, or lying on the treatment table. These autonomic patterns are effects from stress and shock/trauma. They can be integrated by acknowledging them verbally and kinesthetically by slowing the technique and lightening the touch. Small spontaneous client fasciculations are verbally acknowledged by the therapist. What is important in these micromovements is for the client to become aware of the movement and to allow the arising sensation to occur without judgment or interference. This permits integration to occur between the myofascial and the autonomic nervous systems and avoids retraumatizing the client (Levine, 1997).

One goal of holistic myofascial release is to encourage clinicians to see their clients with new eyes and new hands. The clinician can view each client as a whole person, rather than just their exterior asymmetries and complaints. The therapist appreciates the client's unspoken message regarding his or her inner emotional and social circumstances. Recognizing that the client from a different cultural background may be embarrassed at being seen in his or her underwear, for example, impacts the treatment. This embarrassment or confusion may be an opportunity for the clinician to change approaches and help the client to relax, and for the therapist to do what is appropriate and correct for that client. Safety and trust are essential ingredients to a successful therapeutic outcome.

Holistic myofascial release looks at the ways the client has structured his or her past experience as it shows itself in the body. Myofascial release offers the possibility to destructure past somatic experience and to reform or create a new structure. When the client's contact with the world is thwarted by orthopedic injury, shock/ trauma, stress, and so on, the inner world of the body becomes distorted. A central focus of holistic practice is to rearrange these distorted myofascial patterns. One of the goals of this approach is to help clients experience the interconnectedness between the experience of their bodies from the inside and its relationship to the outside world. This includes how sensations, feelings, and emotions are organized in the body and how they are coupled to meaning and memory (Pert, 1997). To know how the fascia shapes itself from inner and outer experience is important to the understanding of myofascial release (Keleman, 1986).

To review, these are some of the elements of practicing myofascial release holistically: the first is to acknowledge personal thoughts and feelings and then to become centered and grounded by paying attention to the present moment. The second element is appreciating the uniqueness of the whole client by carefully listening and observing. The third element relates to the aesthetics of balance, form, and shape of how the client holds experience in his or her body, especially with the autonomic nervous system. Myofascial release is an art form, and the therapist is a sculptor. These foundational skills form the basis for organizing a treatment plan for the client. This is the beginning of a holistic understanding of myofascial release.

## **Holistic Aspects of Fascia**

When practicing myofascial release holistically, it is important to understand some biological principles and systemic characteristics of the fascial system. The first principle is that fascia is an organic crystal with an electrical, chemical, and magnetic communication system (Oschman, 1993a). An orthopedic injury, stress, or shock/ trauma to the body changes this bioelectromagnetic configuration at the cellular level. Compression of a crystalline substance, such as fascia, produces a change in the electrical field of the tissue. Change produced by compression of the crystalline lattice of the fascia is called the piezoelectric effect. Fascia is a semiconductor. Thus myofascial release may change or enhance this bioelectromagnetic configuration because direct compression of the fascia is often employed in myofascial release. Even though there is much research to be done in this field, it is known that enhancing the bioelectromagnetic configuration will increase circulation, which speeds up tissue healing response time (Rubik et al., 1994).

Second, there is a continuous fascial sheath surrounding every muscle, organ, and bone of the body. In addition, the superficial fascia is one continuous layer of fascia that is subdermal. The retinaculum of the feet and ankle contain thick fascial bands that form a bridge between the deep and superficial fasciae of the body. The fibers in connective tissue fascia include collagen, elastin, and reticulum (Oschman, 1984). There are four categories of collagen fibers. Type I is found in loose, dense connective tissue, which is the most commonly treated type of fascia. Type II collagen is found in hyaline cartilage. Type III collagen is found in the fetal dermis and lining of the arteries. Type IV collagen is found in the basement membrane of cells (Grodin & Cantu, 1992). A

continuum of structure and communication travels from every cell nucleus in the body via the microtubules within the cell through the basement membrane wall to the collagen fibers of the fascia itself (Grodin & Cantu, 1992). This implies that myofascial release may affect the client's body systemically, not just locally. The therapist needs to be able to observe the whole body of the client and the interrelationship of the fascia to the autonomic nervous system, which directly innervates the fascia.

The third biological principle related to all connective tissue is concerning the ground substance. Ground substance is a viscous, amorphous solution with high water content. Ground substance contains collagen fibers and other cells, especially the fibroblasts. Histologically, the fibroblasts are the primary secretory cells in connective tissue, existing in the collagen, elastin, and reticular fibers, as well as the ground substance. It is a function of the ground substance to diffuse nutrients and process waste products. The ground substance also acts as a mechanical barrier to invading bacteria and other microorganisms. Together the various collagen fibers and ground substance are called the extracellular matrix (Grodin & Cantu, 1992).

The primary components of ground substance are glycosaminoglycans substances and water. Glycosaminoglycans substances were formally referred to as acid mucopolysaccharides. They can be divided into sulfated and nonsulfated groups. The nonsulfated group, which is predominantly hyaluronic acid, binds water. Connective tissue is approximately 70 percent water. A change in the water content of the connective tissue affects the critical interfiber distance in the ground substance. When there is an injury to the soft tissue, the ground substance appears dehydrated, and the collagen fibers bind together to form a gel-sol relationship. In an orthopedic trauma or in related stress to the fascial system, the dehydration of the ground substance causes the interfiber distance between the collagen fibers to shorten. This dehydration causes the ground substance to become like a glue or gel. The collagen fibers begin to crosslink and form a much tighter bond to protect the body. Myofascial release and purposeful movement have the potential to rehydrate the ground substance, which causes it to revert back into solution. This subsequently returns the collagen to a healthy interfiber distance. This is what is meant by the gel-sol relationship. Clinically, around the area of injury, the skin and fascia feel tight and dry. Then with appropriate manipulation, the tissue returns to buoyancy and flexibility. All of these changes in the ground substance are mediated by the bioelectromagnetic configuration of the fascia.

The fourth principle is that fascia acts like a fluid system in response to stress and strain. Stress and strains on living biological material are described by the field of biorheology in terms such as shear forces and tension. Fascia exhibits non-Newtonian-type fluid/semi-solid, chaotic behavior because of the tensile properties of collagen. Stress to the fascial system may be unpredictable in its effects. Injury to the fascial system causes systemic compensations throughout the body, not just locally. It is difficult to predict where compensatory patterns will occur (Feitis & Schultz, 1996). Somato-visceral and viscero-somatic interactions are not in register segmentally in the spinal cord (Patterson & Howell, 1989). Visceral input converges on the cord along with somatic afferents may influence the entire spinal cord and brain as one homogenous neuronal pool rather than limiting itself to discrete segments of the spinal cord (Willard & Patterson, 1992). This leaves many possibilities for systemic effects from something as simple as joint pain in the knee. Multiple referral sites from acute and chronic nerve

root irritation are distributed through the body, not just in the fascial system. Chronic knee pain may adversely affect the bladder, liver problems can affect the eyes, and so on.

Nociception, the processing of pain, has a pervasive influence in the body and central nervous system. Nociceptive mechanisms both locally and centrally contribute to the adaptive response. Thus a minor injury to a part of the body that is already under stress may push the whole system over the edge causing a reaction quite larger than normal (Willard & Patterson, 1992). For example, a client may have a subclinical bowel problem such as intermittent constipation, then sprain their ankle and develop headaches, lose sleep, and enter a period of chronic pain from seemingly innocuous events.

The fifth principle is that the body is capable of building more fascia than it can remove. Scientists feel that the need for rapid, adaptive patterning is part of the evolutionary process (Oschman, 1993a). Any injury to the soft tissues of the body undergoes a process of shortening and tightening to heal. These changes in collagenous binding begin to occur within 20 minutes of an injury or sustained postural distortion. The longer the distorted, immobile position is maintained, the more the collagen fibers will crosslink to form newer, tighter bonds. These bonds will continue to proliferate over time to adjacent joints above and below the site of the injury. Fascial binding affects the entire body because the fascia has multilayered continuity from top to bottom and outside to in. This accounts for some of the reflex activity seen in myofascial pain syndromes (Travell & Simons, 1992). Recognition of how the whole body fascial system compensates or adapts to trauma and injuries is an important treatment consideration with myofascial release.

## **Treatment Strategies**

At a practical level for time management during a myofascial release treatment, the superficial fascia is engaged for the first 20 to 30 minutes, followed by the deep fascia for 10 to 15 minutes. This is followed at the end of the treatment by coming back out to the superficial fascia layer and organizing the part of it known as the integrative fascia, which surrounds the erector spinae muscles. The integrative fascia is all the paraspinal fascia. Organizing the paraspinal fascia has a direct and positive biomechanical effect on the brain and spinal cord via the denticulate ligaments and its dural connections. This includes the vascular and lymphatic vessels of the spine known as Batson's plexus. These central midline elements relay tissue changes, occurring throughout the body, both biomechanically and neurologically directly into the spinal cord and brain.

When multiple treatment sessions are possible for a single client, three session units may be organized. Several options are available when viewing a series of three treatments as a unit of work. One triad might begin with a session on the lower extremities and pelvic girdle, followed by a second session on the shoulder girdle and upper extremities, then a third session specific to the axial midline and spine. Other triads might focus on three sets of three sessions: three superficial fascia sessions, followed by three deep fascia release sessions, concluding with three paraspinal integrative sessions. The combinations possible with this triad model are numerous.

There are three additional practical organizational concepts. The first is that the dorsal and ventral fasciae of the trunk migrate laterally under stress or from injury. This is a clinical observation from numerous therapists. This means that in the myofascial

release treatment, the therapist moves the fascia over the abdomen and rib cage up and back toward the spinal column to restore postural tone. Then the fascia over the spinal erectors is moved medially and down from trapezius to sacrum. Quite simply the therapist lifts the ventral fasciae up the front and drops the ventral fasciae down the back.

Strategies for manipulating fascial restrictions are based on the functional divisions of the fascial system and how appropriate contact is made with this system. These divisions are called the deep and superficial fascia. The easiest way to engage the system is at the level of the superficial fascia and the coverings of the superficial postural support muscles. After freedom is achieved in the superficial layers and enlivened with broad light contact, the deep fascia is engaged (Rolf, 1989). The deep fascia is the layer continuous with and surrounding the deep postural support muscles. These muscles include the tibialis and peroneal group in the lower extremity, the interosseous membrane between the tibia and the fibula, the adductor complex, the ilio-psoas-diaphragm group, the mediastinum, the pectoralis minor and subscapularis, the scalenes, the pterygoid muscles, and the meninges.

Second, the myofascial release therapist accesses the superficial fascia of the client along the coronal plane of the body while the client is side lying. The coronal plane is like a tailor's seam on the lateral side of a suit or pair of pants. It is the point where many fascial planes converge, such as the aponeurosis of the abdominal fascia and the lumbar fascia. The osseous margins like the iliac crest are ideal places to differentiate fascial layers as they converge at the coronal plane. Key structures to free with myofascial release are the lateral malleolus, head of the fibula, greater trochanter, crest of the ileum, the ribs, the head of the humerus, the mastoid process of the temporal bones, the parietal (bone) ridges, and the occipital squama.

Third, the therapist works with the intention to separate the fascial septa between the muscles that are not gliding over each other properly. The fascial septa are the bags or containers of the individual muscles. Injury causes the septa to bind or glue to each other via the gel-sol relationship of the ground substance, thus restricting motion. In addition, myofascial release includes work on the various retinacula on the legs, arms, trunk, and spine. It is the belief of this author that the posterior serratus muscles act as retinacula for the erectors. The retinaculi have significant potential for binding because the superficial and deep fasciae merge at each of the retinaculum. Releasing these deep and superficial fascial junctions is essential for free movement of the fascia and postural alignment.

An important treatment component of myofascial release is disengagement. As the therapist applies direct pressure to the client's body, it is important for the therapist to periodically (approximately every 3 minutes) take their hands off the client's body and observe their respiration for a minimum of two or three cycles. This allows the client to integrate the treatment into their autonomic nervous system and permits the therapist to evaluate the cumulative effect of their treatment. Without periodic disengagement or proper pacing of the work, the risk of retraumatizing the client increases as the autonomic nervous system fails to cycle properly (Levine, 1997). The central and autonomic nervous systems take longer to integrate changes in the soft tissue from myofascial release.

During disengagement, it is an ideal time to visually scan the client from head to toe.