Advanced Myofascial Techniques

Til Luchau

Foreword by Robert Schleip
There have been numerous books written about myofascial approaches to hands-on manual therapy. Like this book, many of those come from the long lineage of fascial methodologies that include Ida Rolf’s structural integration and its osteopathic influences, dating back to Andrew T. Still’s writings on fascia from the late 1800s. And as this book does, many other books leverage our more recent learning about fascia to refine and enrich this long tradition.

However, the focus on a select set of common client complaints, and the provision of practical tools and suggestions for working practitioners to put into practice immediately, makes Til Luchau’s book unique. Experienced practitioners will find thought-provoking concepts and details, with citations to relevant research, to help them take their knowledge and creativity to an even higher level. At the same time, newer practitioners will appreciate the clarity and accessibility of the verbal and visual instructions, as well as the step-by-step progression of the techniques.

However, clarity and simplicity should not be confused for a lack of substance or sophistication. During the more than 20 years that I have known Til Luchau as a colleague at the Rolf Institute of Structural Integration, I have learned an incredible amount from him while co-teaching numerous classes and exchanging information. His unique ability to offer valuable tools to both experienced and newer practitioners dates back to Til Luchau’s early work at the Rolf Institute in Boulder, Colorado, USA. In the early 1990s, when Til Luchau was the Coordinator of that institute’s Foundations of Rolfing Structural Integration program, he was charged with developing a curriculum to teach the fundamental manual therapy skills needed for structural integration. The resulting ‘Skillful Touch’ syllabus is still used (and being further developed) by the Rolf Institute’s USA faculty today. A few years later, the Rolf Institute administration asked him to offer continuing education seminars for professionals in allied fields, introducing them to structural integration ideas to give
them immediate tools to use, and inspire their further learning. His ‘Advanced Myofascial Techniques’ workshop series was immediately popular with bodyworkers, physical therapists, massage therapists, structural integration practitioners, chiropractors, and other hands-on specialists, and although official affiliation with the Rolf Institute ended amicably in 2010, today (in mid 2014) the Advanced Myofascial Techniques seminar series has several thousand alumni worldwide. This book is therefore long overdue, and without a doubt will be welcomed by the many practitioners who have been exposed to Til Luchau’s distinctive teaching, writing, videos, and broadcasts. It will be obvious to the reader that many years of evolutionary refinement underlie the ideas and instructions in this text.

This is not a Rolfing or even a structural integration text per se; not only is the Rolfing name trademarked, but Rolfing is much more than a set of techniques, and is less focused on client complaints than on the overall relationship of the body with gravity. Furthermore, there are many other influences in this book’s material besides structural integration, including craniosacral therapy, osteopathic principles, orthopedic approaches, and the eclectic bodywork influences of Til’s time practicing at the Esalen Institute in the 1980’s.

There is more to any approach than its techniques. A quiet but pervasive point of view lies behind this book’s anatomical language, compelling graphics, research citations, and detailed practical instruction. If you look closely, you’ll see that Til Luchau’s background in somatic and group psychology (having worked for many years as a somatic psychotherapist and group leader) comes through in a quiet, almost invisible way. This almost-hidden perspective emphasizes the human, interactive elements of hands-on work, and will find resonance with the many practitioners who feel that working with their clients or patients yields more satisfying results than working on them.

This attention to the interaction between practitioner and client, in combination with attention to the technical and physical sides of
manual therapy, has parallels in our changing view of the connective tissue system itself. We are learning, for instance, that it isn’t just fascia’s interesting mechanical properties that account for its remarkable plasticity. It is becoming clear that fascia’s innervation and resulting sensitivity also plays a very important role. The beneficial effects that manual therapists see may owe as much to this fascial sensitivity as to the fascia’s purely physical properties (if not even more).

Of course the stunning images from Primal Pictures (and others) are a large part of this book’s message. While we admire these images’ intelligibility and beauty, let’s remember that in the real body, myofascia is not neatly separated into discrete structures; it is fascia’s often messy and complex interconnectedness that best characterizes it.

No book, no matter how lavishly illustrated or carefully worded, can substitute for the learning that happens in an in-person context. Many in this line of work learn through experiencing, feeling, and doing. Too often, books lead by thinking alone. This book’s usefulness in a wide range of clinical and educational settings, and enduring value to practitioners, is that it includes all these dimensions.

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What is fascia?

The term **fascia** (from Latin "band") generally applies to the fibrous connective tissues covering, connecting, and investing muscles, tendons, bones, vessels, organs, and nerves. It has many subtypes, which can vary from dense to loose, and from highly regular to very irregular (Figure 2.2). Academics still debate precisely which tissues can justifiably be considered fascia (2), but researchers generally agree that all of the tissues under discussion are composed of the same basic elements (fibers, cells, and a matrix or ground substance) in varying proportions and arrangements, and that all of these tissues interconnect. Fascial researcher Robert Schleip and his collaborators offer a commonly accepted definition of fascia, saying that it is the "soft tissue components of the connective tissue system that permeates the human..."
Fascia, Part 1: Understanding Fascial Change

Myofascia

What then, is “myofascia”? Strictly speaking, myofascia refers to the fascial connective tissues related to the skeletal muscles (myo meaning muscle) – their internal fascial structures, external coverings, septa, and connections. Informally, myofascia is often used synonymously with fascia (though by most definitions, there are many kinds of fascia not directly related to the muscles). At Advanced-Trainings.com, we use the term “myofascial techniques” to include the active, or “myo”, element of our approach. In many of our techniques, we employ active client movements in order to: a) mobilize and differentiate layers and structures that would be difficult to access passively; b) allow clients to modulate the intensity of the work; and c) reeducate neuromuscular movement patterns, as clients learn to move in new ways under the practitioner’s hands.

The ups and downs of fascia

Fascia has several qualities that are particularly relevant to hands-on work. Three of these are:

I. Continuity
II. Plasticity
III. Sensitivity.

Each of these qualities could be thought of as having a beneficial and a detrimental aspect, or an upside and a downside (Figure 2.3). We will discuss each of these qualities in turn, and list the techniques that utilize each of these qualities. In the next chapter, we will then describe additional fascial techniques in greater detail.
Type 1 Ankle Restrictions and Plantar Fasciitis

Ankles bend, ankles straighten. Why is this important? Try walking without bending your ankles. If you have ever attempted to walk in ski boots, you will recognize the awkwardness and stiffness that comes with a loss of ankle motion.

Ankles bend in two sagittal directions – plantarflexion (from the Latin plantaris flectere, “sole bent”), and dorsiflexion (bent towards the dorsal or upper side of the foot). While plantarflexion gives a powerful push-off to each stride and adds spring to a jump, the complementary motion of dorsiflexion is at least as important. Squatting, kneeling, lunging, running, and landing from a jump all require dorsiflexion, as do many other crucial functions related to our ability to get around and function freely. Dorsiflexion, when lost, limits more than just ankle movement – it limits our overall mobility and adaptability.

There are two main types of structural restrictions that can limit standing dorsiflexion. We will refer to them as Type 1 and Type 2:

1. Type 1 Restrictions: The contributing causes of both types of restrictions can include soft tissue shortening, hardening, or scarring from overuse, postural habit, surgery, or injury, as well as neurological conditions such as cerebral palsy. The contractions from these conditions will usually respond well to the work presented in this book. Restrictions from joint abnormalities or bone spurs are also possible, and although the work described here may be helpful, additional measures and care by other professionals is usually indicated.

2. Type 2 Restrictions and the Ankle Mortise: These two types of restrictions can occur together, but often one type will be the primary or most obvious restriction. In general, Type 2 restrictions...
Ankle Mobility Part 1

Type 1 Ankle Restrictions and Plantar Fasciitis

As long as your client is comfortable and able to relax into the work, you can incorporate an additional measure of passive gastrocnemius stretch with your leg (Figure 4.4). Use your soft fist or gentle finger pressure to work all the way to the proximal origins of the medial and lateral gastrocnemius heads on the posterior femur (Figure 4.5), being cautious around the nerves in the popliteal fossa at the back of the knee.

### Plantar Fascia Technique

The sole of the foot has alternating layers of broad connective tissue strata, short strong muscles, and long cord-like tendons and ligaments. Shortness in any of these layers can limit dorsiflexion through their collective continuity with the gastrocnemius/soleus complex, as seen in Figure 4.1. The plantar fascia is a strong, fibrous layer covering the entire sole, lying superficial to the short toe flexors and just deep to the subcutaneous fat of the heel (Figure 4.7). Plantar fasciitis is a common inflammatory condition of this layer, characterized by heel and mid-foot pain, and most often with point tenderness at the plantar fascia’s insertion on the distal and inferior surfaces of the calcaneus. Contributive factors include improper foot and leg biomechanics, overuse, and fascial shortness in the calf or hamstrings.

Direct work with the plantar surface of the foot, including the plantar fascia, is indicated when clients report a stretch or pain in the sole with the Dorsiflexion Test. Local plantar pain, cramplimg, and stiffness are also indications for using this technique, as is plantar fasciitis.

Because plantar fasciitis involves tissue inflammation, the conventional wisdom is to avoid working directly on the most painful areas.
Type 2 Restrictions and the Ankle Mortise

Retinacula that are too tight can irritate the bursa underneath them. They can also limit the adaptability of the ankle by binding the tendons they overlie, or by restricting the necessary spreading of the tibia and fibula around the talus.

To ensure adaptability of the crural fascia and the retinacula, use the ends of your curled fingers to feel for and release any restrictions in these outer layers. Using the tips of your nails, push proximally, rather than pulling distally.

Feel for the fibrous layers of fascia just under the skin (Figures 5.5 and 5.6). Imagine pushing up your client’s tight-but-sagging socks. The pressure is firm; your pace is slow and patient. Rather than gliding over the skin, take time to feel for the tough layers just deep to the dermis. Feel for fibrous banding here, and for any adhesion to the layers below. Ask for slow, active dorsiflexion and plantarflexion. Apply sensitive but firm proximal pressure to these areas and wait for release. Work the crural fascia of the entire lower half of the leg, as well as the retinacula of the ankle and the fascia dorsalis pedis of the instep (Figure 5.6).

Key points: Retinacula Technique

- **Indications include:**
  - Type 2 dorsiflexion restriction.
  - Bursa irritation or nerve pain at the ankle.
- **Purpose**
  - Increase layer differentiation and tissue adaptability.
  - Prepare outer layers of lower leg for deeper work.
- **Instructions**
  - Use gentle friction and tension to feel for and release any restrictions in outer layers of lower leg.
- **Movements**
  - Active dorsiflexion.
Type 2 Restrictions and the Ankle Mortise

The tibia. It can be helpful to imagine unrolling the two bones of the lower leg like the two parts of a scroll. There is, in fact, a small amount of external fibular rotation with dorsiflexion (1) and adding this dimension to your lower leg work can increase its effectiveness.

Once you’ve felt the fibula respond, shift your knuckles to a new place, repeating this technique along the entire length of the fibula, particularly at the distal end, where the tibiofibular ligaments are located.

After working the first leg, ask your client to stand and walk for a few steps, comparing the sensations of the worked and un-worked legs. Often the difference in mobility and stability will be profound. Ask your client to repeat this comparison again after working the second leg.

Key points: Interosseous Membrane Technique

Indications include:
- Type 2 dorsiflexion restriction.

Purpose
- Increase resilient adaptability between the fibula and tibia.

Instructions
- Use knuckles of soft fist to apply lateral pressure on the fibula, in combination with active.
- Dorsiflexion. Wait for slight lateral yielding of fibula.

Movements
- Active dorsiflexion.

Over-pronation and hypermobility

Our overall intention with these techniques is to relieve any dorsiflexion restrictions by ensuring that the fibula and tibia can spring and widen slightly around the wedge-shape talus, particularly in full dorsiflexion. But what about ankles that already seem too mobile, such as in
Techniques for restoring fibular mobility

**Distal Tibiofibular Joint Technique**

At their lower end, the fibula and tibia join at the distal tibiofibular joint (also known as the tibiofibular syndesmosis). This stiff articulation is bound together by tough, pearly ligaments in front (the anterior tibiofibular ligament, Figure 6.8), in back (the posterior tibiofibular ligament, not pictured), and between the bones (the interosseous ligament, also not pictured).

As discussed above, a small amount of springy adaptability in the tibiofibular joint is important for balanced functioning of the ankle, especially for full dorsiflexion, so this technique is useful whenever ankle dorsiflexion is limited.

To begin, feel for the gap between the distal end of the tibia and fibula with your thumb (Figures 6.6 and 6.7) or another tool. Once you have located this fissure between the bones (it is often more lateral than you think), bring your client’s ankle into passive dorsiflexion. When the distal end of the fibula is mobile, this fissure will open up or deepen slightly with your passive dorsiflexion, as the wider anterior part of the wedge-shaped talus pushes the fibula laterally.

If you don’t feel this slight gapping or softening between the bones, continue to apply firm but gentle pressure here, in combination with the passive dorsiflexion. There should be no pain or discomfort; be precise, but not sharp or pointed with your touch. Wait for the joint to respond, as indicated by a slight softening or lateral translation of the fibula. This may take 30–90 seconds.

While you are here, you can use a similar hand position to assess and address anterior/posterior fibular glide. Feel for evenness of fibular mobility at its distal end by stabilizing the tibia’s medial malleolus with your medial hand (not pictured),

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Figures 6.6/6.7
The Distal Tibiofibular Joint Technique combines passive dorsiflexion with pressure into the cleft between the tibia and fibula to restore lateral movement of the fibula.
end, because of its close association with the peroneal nerve.

- Since the fibula does not articulate with the femur, it is more functionally related to the ankle than the knee (at least in humans). Some animals’ fibulas do not articulate with either foot bones or femurs, making their fibulae free at both ends. In horses, the tibia and fibula form a single joined bone.

As with any single body part, work the fibula as part of a bigger picture. For example, it is a good idea to prepare for the techniques outlined in this chapter by addressing any restrictions related to a tight gastrocnemius or soleus (Chapter 4), which will be a logical compliment to the work described in this chapter. Ankle pronation/supination, hip/knee/ankle alignment, as well as hip and femur rotation (Chapter 10, Hip Mobility), are all additional aspects to consider and address as part of your overall work with ankle and lower leg issues.

References


Functionally, the toes affect whole-body balance and movement. Structurally, hammertoes are not just a toe issue. Hammertoes can involve shortened and inelastic soft tissues in the toe itself, in the foot (via the flexor and extensor digitorum brevis), and/or in the leg, where the flexor and extensor digitorum longi can be especially strong contributors to fixing the toe in a flexed position. We will begin our work by addressing the foot and toes themselves, and then we will move on to the lower leg.

**Flexor Digitorum Brevis Technique**

When contracted, the short toe flexors in the sole of the foot (Figure 7.5) contribute to hammertoes by curling the PIP and DIP (the two distal joints of the toe). The flexors are found just deep to the plantar fascia, in the most superficial muscle layer at the bottom of the foot.

Before attempting to work with this muscle layer, begin by warming up the superficial and plantar fascias of the sole. These tissues can also contribute to toe flexure. Use any broad, superficial technique for this preparatory work (one example is the Plantar Fascia Technique, described in Chapter 4, *Type 1 Ankle Restrictions And Plantar Fasciitis*). Avoid using oil or cream, at least at this point, since reducing friction makes it more difficult to work with the sole’s distinct tissue layers. Instead, slow down and let the tissues melt. Once you have prepared the superficial and plantar fascias, use the tips of your curled thumbs to anchor the short, strong flexors in a heel-ward direction, as your client lifts his or her toes in active toe extension (Figure 7.4). You can also use passive toe extension, gently stretching the toes into extension with your free hand. This combination of anchoring into the short flexors and adding movement is very effective in lengthening contracted or shortened lines of strain in the underside of the foot. Be thorough, working
Once the surgery has healed (after at least six to eight weeks).

Although the toes and their ligaments are sensitive, ticklish, or painful on many people, if you take your time and stay in close communication with your client, the sensation will be well tolerated. The normalization of hypersensitive areas can itself be very therapeutic. Combined with the tissue changes from your work, it will yield gratifying changes in flexibility and pain reduction.

At this point, you have worked the short toe flexors and extensors, as well as the sheaths, capsules, and ligaments of the toe joints themselves. Although there is more to do, and even though you may need repeated visits to see a visible change in your clients’ toes’ resting position, in many cases, your client will already notice greater toe flexibility and comfort.

Working the lower leg

So far, we have described a number of ways that you can work with the short toe flexors and extensors, as well as with the ligaments and tissues of the toes themselves. When shortened, these muscles and their associated tendons and fasciae are the main structures within the foot that contribute to hammertoe conditions; however, the foot structures are just part of the picture.

Flexor Digitorum Longus Technique

While working with the shortened structures within the foot is an essential part of addressing hammertoe patterns, the long toe flexors and extensors (Figure 7.10) exert even more contractile forces than their shorter brevi cousins. Originating in the lower leg, the long flexors and extensors cross the ankle and attach to the most distal bones of the toes, powerfully assisting in balance, stride push-off, jumping, toe pointing, and so on. As with their shorter brevi
counterparts within the foot, when both the long flexors and extensors are shortened, they buckle the DIP and PIP (the joints of the toe itself), as well as the MTPJ at the base of the toe.

Even though they affect the toe joints, the main part of the long toe flexors and extensors are in the lower leg. We will address these components by utilizing the Golgi tendon organ reflex. When stimulated with a combination of pressure and active movement, the Golgi tendon organs (which are often concentrated near a tendon’s attachments to the periosteum) signal the motor units’ alpha motor neurons (via synapses in the spinal cord) to lower that muscle’s firing rate. With minimal effort on the part of the practitioner, working a muscle’s attachments and stimulating this Golgi response results in a reduction in local hypertonus, and enhances finer global movement coordination (4).

The proximal attachments of the flexor digitorum longus can be accessed on the medial side of the lower leg, midway between ankle and knee, on the posterior aspect of the tibia (Figures 7.11, 7.12, and 7.13). To stimulate a Golgi response here, wrap your hands around the shin and feel into the structures just behind the tibia with your fingers. This is a sensitive area, so proceed slowly. By asking your client to flex (curl) his or her toes, you will be able to locate the precise attachments of the flexor digitorum longus on the posterior side of the tibia. Rather than sliding or scrubbing, use firm but gentle static pressure here, as your client continues to actively curl and uncurl the toes. Asking your client to “gather up the sheet with your toes” is an effective cue. Feel for a release and softening of the tissues under your touch, and also feel for a shift in the initiation of your client’s movement. Once the Golgi response has engaged, movements will initiate more gradually and smoothly, and with finer control; in other words, with less of an initial jerk or all-or-nothing contraction.
Pelvic Girdle

10 Hip Mobility
11 Sciatic Pain
12 The Sacrotuberous Ligament
13 The Sacroiliac Joints
14 The Iliac