Terra Rosa E-Magazine

Open information for massage therapists & bodyworkers

No. 8, July 2011

www.terrarosa.com.au
www.massage-research.com

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Welcome to our eighth issue of Terra Rosa e-magazine. We just finished a series of workshops with Joe Muscolino workshops. Another successful workshop by a brilliant instructor. One thing important that I learnt that is if we know our anatomy well, it will help us to prevent all the caveats and remove all doubts in working deeply. Read the report of the workshop here.

In this issue, we begin with Art Riggs showing us the fundamental issue of Touch. The topic of fascia is still sizzling, and we have several unique articles. Julie Ann Day will update you on what's new in fascia research. Cassandra Wang proposed using a commercial sander as a tool (Robert Schleip mentioned this at the 2nd Fascia Congress). We reviewed the transverse diaphragms. Steven Goldstein demonstrates the oscillation techniques. And finally Giovanni Chetta discusses the biomechanics of lumbar fascia.

Tom Ockler discusses MET for the pelvis, and Erik Dalton shows us the true grit of muscle spasm. We have an interview with Eli Thompson, who has developed the Tensegri-Teach model as a tool to demonstrate the principle of tensegrity, and how the fascia network is balancing our body.

Lastly, a couple of articles that help you to save your hands. Don't forget to read 6 questions to Tom Ockler & Lauriann Greeb.

Thanks for reading and Stay Healthy

Sydney, July 2011

Refine Your Touch

Cultivate sensitivity in your work

By Art Riggs

"Refine your touch!" These three words of admonishment from a partner on my first day of bodywork training were probably the best single lesson. I've received in my bodywork career. I realized that my touch was, indeed, harsh; if I attempted to make things happen against the will of my clients and their tissue, my work was less effective and could be a cause of alienation rather than a rewarding and close connection.

Recently, I was working very deeply with a client in a particularly recalcitrant area when she suddenly volunteered, "You have such a comforting touch!" I was a bit surprised at such a nice compliment because I'm often concerned that I sacrifice a soft touch when I become over-focused on the outcome of my work, and I was concerned that I was approaching her pain threshold. So I asked her if she could explain what she meant. She responded: "Well, first, I always feel safe, so I can relax knowing that you know your anatomy and precautions and that you are always tuned into how I'm accepting the work. Mostly, your hands, elbows, and all your tools seem 'soft,' even when you're working hard or very deeply, and you always let me determine how fast I can let go. Sometimes there might even be something that could feel like pain, but it seems necessary. I feel that it is more like the pain when my mother would remove a splinter—kind of intense, but really giving a feeling of relief and actually comfort."

'Now Mr. Henshaw, let's see if we can't work some of that tension out of your neck.'

One person's pain may be another person's pleasure. Your skill will be in determining the effective zone between too conservative work, which may be interpreted as ineffective, or too goal-oriented and aggressive work, which will not only remove the pleasure of receiving bodywork, but will decrease your effectiveness as clients resist your pressure. Cartoon from: http://bigeyedeer.wordpress.com Used with permission.

In a nutshell, she said what I've tried to teach for the past 20 years: the sensations your clients receive are a function of your relationship with them and their trust of your competence, the specifics of your mechanical skill, your sensitivity to their reactions, and the focus of your attention to removing tension in areas of holding.

YOUR RELATIONSHIP WITH YOUR CLIENT

Pain does not exist in a vacuum. Much of our perception of this sensation is influenced by context, as in my client's analogy of removing a splinter. Of course, the mechanics of your techniques—including speed, pressure, direction, and depth of work —are major factors, but the context of your relationship with your clients and your intention can provide the confidence and feeling of being cared for that can make the difference between a tense struggle or a relaxed and easy session as your clients realize the benefits from a mutually focused commitment to solve problems.

Since our bodies and minds are conditioned to interpret pain as the messenger that says "Something is wrong here," fear is often a primary emotion we deal with when working deeply with our clients. The first

few minutes of your session can be your major ally in allaying the fear and bodily tension caused by this emotion. Following are some suggestions for consideration.

Establish Rapport

It's crucial to build a relationship with your clients based on mutual trust and connection. Taking time to chat with them, especially if it is the first time you have seen them, can set the tone of everything you do in the session. Just a few minutes of relaxed conversation can let your client feel like a person you actually care about on a personal level, rather than a set of symptoms.

Cultivate Confidence

Incrementally introducing your skills and working style can help ease the process. Rather than immediately beginning work on sensitive or troublesome areas, address areas that will feel good to lower the fight-or-flight charge in the nervous system. Let your clients become familiar and relaxed with your touch in areas where they feel safe before venturing into more thorny territory. Explain the rationale behind your strategies, especially in sensitive areas, and communicate that you realize the area may sometimes be uncomfortable and that you appreciate how they are working with you. Intense therapy with a clear intention will be perceived very differently from work that appears to be insensitive and without a purpose.

The most important gift of trust you can give to your clients is the knowledge you will stop immediately if they ask you to. However, there is a delicate balance between being receptive to feedback and relinquishing your control of the session and appearing to be less than confident.

Constantly asking your client if the work is too intense can call attention to the issues of pain. The client should be able to relax with confidence in your sensitivity rather than having to be overly vigilant in giving feedback. Err on the side of caution rather than overworking and having to interrupt the flow of the session by frequently stopping work and having to regain the trust and relaxation of your clients after overstimulation. Very often, if you sense that your client is tightening against your intention, it best to not suddenly interrupt the stroke. The speed at which you are working is usually the culprit—just slow down, slightly ease up on pressure, wait for both of your energies to mesh and then continue.

In tender areas, such as the iliotibial (I.T.) band, the side-lying position enables you to observe your client's face for subtle reactions to your pressure. This position also allows for powerful use of your own weight, the ability to rotate your forearm for precise use of the ulna, or a softer touch. The use of the other hand provides stability, rotates the tissue around the femur for better alignment, or anchors and stretches strokes when applying force in the opposite direction with the forearm.

THE INTANGIBLES

It is important to realize that your mind-set can determine the quality of touch as much as your specific biomechanical techniques. Probably the single most important cause of work being perceived as painful or too intense is working too quickly. Often, therapists feel a generous sense of urgency to get too much work done or cling to routines that emphasize covering the whole body with equal attention to all parts. They may end up spending unneeded time on relaxed areas and rushing on areas of holding. Many therapists report fear of clients feeling short-changed if they don't perform a full-body massage.

Although educating clients about the benefits of detailed spot work is helpful, it is also possible to have the best of both worlds by simply educating clients on the advantages of longer massages that leave enough time for a thorough unravelling of the client's holding patterns while still covering the entire body with varying degrees of focus depending on the need.

Wasted or ineffective strokes take precious time from the areas that need additional and slow care and can spell the difference between work that feels good at the time but doesn't leave lasting benefits or a session that brings significant change. Consider increasing your effectiveness by overcoming some of the following common habits that waste time.

SOFT HANDS

A Rolfer friend of mine has huge, strong, and soft hands that seem to be a cross between a bear's paw and a frog's foot. I always marvel when I see his hands remain totally relaxed as he slowly sinks into the tissue like quicksand. Having soft hands (along with elbows, fists, and knuckles) has been my major goal in touch, and I find myself continuing to improve, but must remain constantly vigilant when tension creeps in.

Virtually everyone holds some unnecessary tension in their hands that will add a harshness of touch and diminish sensitivity in reading the subtle signs that tissue gives us. One easy way to soften your hands is to make them stronger so that you can relax with the same amount of pressure being a smaller percent of your maximum effort. If you can apply the same amount of force with more relaxation and less effort, your work can become more effective and nurturing.

Squeezing balls and slowly building your strength to work with your fingers bent, rather than stiff and hyper-extended, will not only make your work easier, but will soften your touch. Work for this extended, but relaxed, joint function in all areas of your body. Having your fingers slightly flexed and your fingers spread will greatly benefit your touch in "snowplough" strokes pushing to stretch tissue. Everyone can achieve this with some work.

When freeing tight pectoral fascia and muscles, a rigid hand and wrist applying vertical force with fingers held tightly together will feel harsh to your client.

The slightly flexed and spread fingers act as springs while still maintaining mechanical integrity and precise focus of intention as you stretch tissue in any direction. You'll have a broader working area if you use your other hand to increase your effectiveness.

Superficial strokes

Do you take up too much time at the beginning of the session with superficial strokes in order to relax clients when their tension and holding patterns are deep? Related to this is an overemphasis on warming up tissue. Of course, we don't want to just dive in, but I often see therapists warming up tissue that is superficial and unrelated to actual tightness: spending inordinate time working on the gluteal muscles when the actual tightness is in the deeper rotators; working on the gastrocnemius when the soleus is the problem; or warming up the pectoralis major when the tightness is in the pectoralis minor. I frequently see practitioners spending excessive time on the external abdominals and then diving in too quickly to address the psoas, which is a totally different muscle and layer of the body.

The key is to slowly sink vertically to the layer of the body that begins to push back against you and then work horizontally at that layer to lengthen short tissue. You will benefit the more superficial areas at the same time you focus your attention on deeper areas. By the same token, don't be too attached to long, mechanical strokes performed with the same speed and pressure. Individual muscles have great variation in where their restrictions lie. Move quickly along relaxed sections of long muscles like the hamstrings, quadriceps, calves, the erectors, the I.T. band, and arms so that you can slow down and do focused, repetitive strokes in isolated areas of tightness along these areas.

Equal time

People hold tension in very different spots of their bodies, often with vast differences from one side to the

other. Each session should be a bit of a treasure hunt looking for the gold of hidden tension. Relaxed tissue can receive great benefit from quick work that enables you to concentrate on other areas. So that clients understand why I may be spending less time on an area, when I encounter an area that needs minimal work, I often explain, "This leg feels relaxed and fluid ... I won't need to spend as much time here, allowing more time for the shoulder that bothers you."

Forced results

We massage therapists are a generous lot when it comes to wanting to give our clients the best and most helpful work possible, sometimes emphasizing our objectives at the expense of comfort. Attempting to give too much benefit or offer miracles can make us work too hard and actually overstimulate our clients. Even with the best mechanics, we also can try too hard, which will give our touch an abrasive nature as well as create unnecessary strain in our own bodies. If you find yourself shaking or feel stress or pain in the joints of your hands, shoulders, back, or legs, then you are working too hard. It is important to choose realistic goals and work within yourself, even with those clients who crave intense work.

CULTIVATE SENSITIVITY

The threshold where your work becomes too intense for your client to relax is variable between individuals and also between different areas on a single client. The key to providing effective but pleasant work is to hone your awareness of the subtle preliminary signs of resistance to your pressure that precede crossing the threshold into pain. Even if you feel less effective in your strategies, it is much better to hover at a level safely below the pain threshold rather than risking over-stimulation and the disruption that stopping a stroke causes in the smooth flow of your session. Of course, it is an option to have clients inform you when you are working too hard, but then it is usually too late and they aren't able to relax with confidence if they need to be vigilant. It helps to have some tools to gauge client reactions to your work. A one to-10 scale is a safe way to begin until you hone your nonverbal sensitivities, but has the drawback of some clients becoming too involved in controlling the session rather than relaxing. Trust that you will know their limits. Some people are afraid of being wimps and it is important they feel perfectly relaxed about communicating their limits. When I occasionally use this technique, I explain that I never want to cause pain, which I arbitrarily define as "around an eight." Of course, one person's five might be another's eight, but the number is high enough for people to feel like they aren't being overly sensitive. Most important is to have them tell you when they are at a seven, so that they are comfortable, but don't have to worry about your applying more pressure.

The Pain Threshold

Notice the signs that may indicate you are nearing your client's pain threshold.

• Changes in breath—either stopped breathing or deeper, more frequent breaths.

• Changes in facial expression, especially with tightening lips or eyes.

• Curling fingers, toes, or other areas of the body.

• Resistance or tightening of the tissue you are working on.

Whenever possible, I try to position my body so that I can have eye contact. You will quickly develop a rapport and awareness of how your work is being accepted and a connection that will allow your client to relax. Most importantly, notice the cooperation of the tissue you are addressing and distinguish between tight tissue and tissue that is tightening against you. When you feel the tissue is beginning to resist your pressure rather than cooperating, it is time to ease up.

BASICS OF PAIN-FREE WORK

The following guidelines can help you modify your work in ways that may be more appealing for your clients—and you.

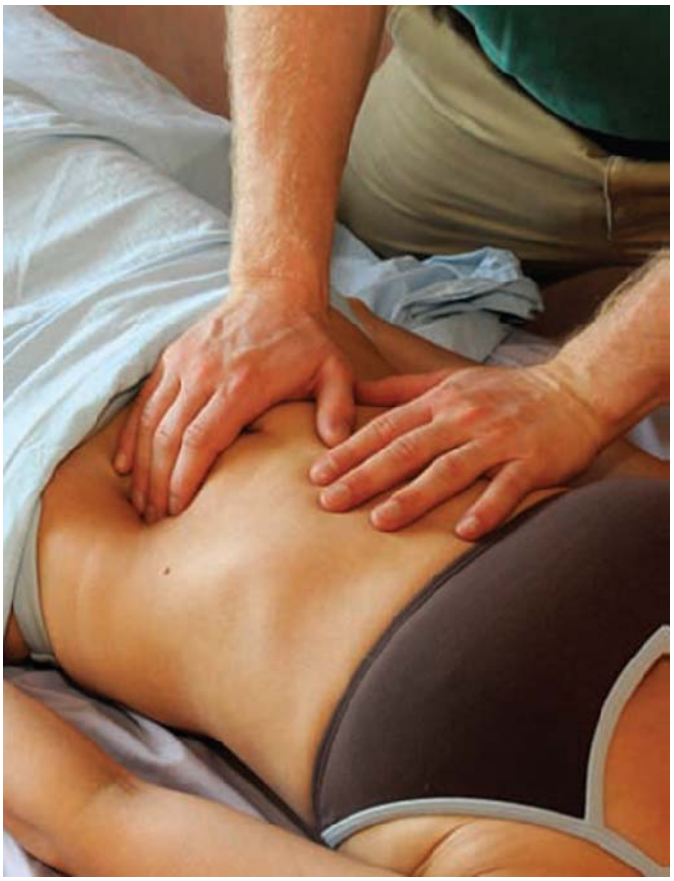
Use minimal lubrication

The goal of most deep structural work is to stretch short tissue rather than just applying pressure and squeezing. I prefer the term grabbing rather than the increasingly popular term hooking, which can imply a harsh or overly aggressive intention, thus contributing to the misperception that deep work needs to be painful. Using too much lubrication requires significantly more unpleasant pressure in order to grab and stretch short tissue rather than sliding over adhesions and other holding patterns.

Move slowly

Most often when people complain of painful bodywork, it is due to strokes moving faster than the tissue can adapt to and relax. Imagine you are pushing a heavy

Working with the psoas, the rigid fingers and small area of contact look more like surgery than bodywork. All of the client's attention will be focused on a small and sensitive area, and relaxation and release will be difficult.



The non-working hand provides a nurturing connection, while the palm of the primary hand rests comfortably on the superficial abdomen. The bent and slightly separated fingers have the ability to easily sink to the level of the psoas, where individual fingers can differentiate specific areas of tightness.

boat away from a dock. It takes a while to conquer inertia with slow steady pressure. When you feel the tissue melt, that is the time to lighten your pressure and let the tissue dictate depth and direction of release.

Pace your sessions

Although my early career motives were well-intentioned, as a goal-oriented person, my greatest sin in my early practice was trying to accomplish too much. I wish I could give recall notices to my early clients as I watched them levitate off the table as a result of my overgenerous attempts at being a miracle worker. Make your sessions a journey rather than a destination and don't become too attached to the outcome of your work. It also helps

to clarify your goals with reasonable expectations. Some therapists appear to be trying to win an argument with stubborn holding patterns, rather than having a give and take dialogue and allowing for the great educational benefit of voluntary release on the part of the client rather than coercion.

I have learned a great deal from going to yoga classes. In some poses, when I'm sweating bullets and considering crying out, the teacher will sometimes say, "We only have 30 seconds left." Suddenly, my perception of overwhelming pain dissipates as I realize that an end is in sight. I relax and move to a new level of release. When you feel that your clients are working with you for important release but are on the edge, let them know you are aware of and grateful for their cooperation and that relief is around the corner. The very tension of conscious withholding is often the last obstacle in the way of dramatic and lasting change, so lightening up in force and speed may be all that is needed to achieve that last release.

Sink vertically, then work

One of the biggest errors I see is when therapists "sink and work" vertically at the same time before encountering the layer where they want to work and before the body can adjust. Slowly sink through superficial tissue at a fairly vertical angle until you encounter resistance and then alter your direction obliquely. Once you de-

Applying force distally allows short hamstrings to lengthen and also allows for the additional benefit of decompressing the hip joint. The left hand can facilitate the stretch by moving in the same direction or can anchor tight fascia proximally to localize the stretch.

cide to work obliquely, only apply as much force as is necessary to grab the tissue and stretch it. A common error is to apply too much pressure so that the muscles actually contract out of discomfort, thus negating your efforts to teach them to relax and lengthen. Imagine pulling on a rope in a tug of war—you only need enough pressure in your grip to hold the rope; any additional pressure will only cause tension and waste energy.

Allow for rest

A friend once gave me some excellent advice: "In life, as in music, the rests are as important as the notes." I apply this wisdom to my sessions. Intense work has a cumulative drain on the nervous system and the energy of the client to cooperate. When performing intense work, I give frequent short breaks where I actually just break contact, or I lighten my touch or do feel-good work to nearby areas. This allows for a rest and the chance to evaluate, appreciate, and solidify the good work you have performed. It is difficult for the gelatine to set if it is constantly stirred.

Work towards the core

The areas that need the most work are often the most defensive and have a lower pain threshold. You can gain the trust of your client by beginning work in less sensitive areas on the periphery and extending the relaxed area into the core of holding rather than starting at the epicentre.

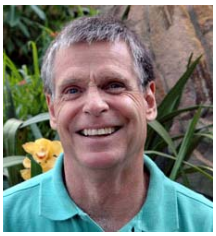
Contact large areas

Use your non-dominant hand to broaden your contact; this gives the brain some other input to consider and can actually direct attention away from sensitive areas.

Direct your strokes

Students who often cling to earlier Swedish massage training— where the emphasis is on working distally to proximally—may conflict with therapeutic goals of distracting joints and lengthening muscles away from their origins. I have my students apply the same pressure to sensitive areas and they are surprised how much more comfortable the stroke feels when moving in the direction of muscle lengthening (usually distally). Applying significant force to muscles such as the quadriceps, hamstrings, iliotibial band, rotators, and gluteals in the direction of lengthening allows them to stretch and relax, rather than buckling them into a shortened position.

The issue of pain is emotionally charged, both for our clients and ourselves. It is important to realize that pain, albeit with lots of real, variable, and emotional considerations, also has a great deal of cultural judgment. I see absolutely no purpose or benefit from imposing unnecessary discomfort in a session. However, fibrosed tissue or long-held contraction may need considerable patient force near the threshold of discomfort. Don't berate yourself if you occasionally overstep the limits of your clients' sensitivity. As my Catholic friends remind me, "It isn't a sin unless you enjoy it." For intense work, a careful dialogue—both with your touch and your unique relationship with each person—of communication and negotiation (rather than coercion) in intense work can spell the difference between an overcautious lost opportunity and profound release.



Art Riggs is the author of Deep Tissue Massage: a Visual Guide to Techniques (North Atlantic Books, 2007), which has been translated into seven languages, and the seven-volume DVD series Deep Tissue Massage and Myofascial Release: A Video Guide to Techniques. Art has conducted numerous workshops for health spas and for medical professionals. He teaches deep tissue massage in the US and around the world, including Australia.

Report on Joe Muscolino's Deep Tissue Massage, Stretching, and Joint Mobilization Workshops in Australia

Joe Muscolino's workshops in Australia were organised by Terra Rosa. The neck workshop was held on the 2nd – 3rd July 2011 in Sydney and on the 9th -10th July 2011 in Hobart. The workshop begins with the body mechanics; Joe showed us how to work from 'the core', so that we are able to generate strong pressure when desired with little effort. Therapists applauded new core body techniques to allow them to work smarter and not harder. As most therapists realize, full-time bodywork often leads to therapist fatigue and eventual injury, which is ironic given that people come to us for help with their own improper body mechanics.

Joe then explained techniques for palpating and working on the muscles of the anterior neck, specifically the scalenes and the longus muscles. He then moved into stretching: after covering the basic concepts of stretching, Joe demonstrated stretching across multiple planes so we can focus a stretch specifically to individual muscle (e.g. the upper trapezius vs. the splenius capitis, or the levator scapulae vs. the splenius capitis). The second day introduced advanced stretching techniques, specifically CR (Contract Relax) stretching, AC (Agonist Contract) stretching (AC is the basis for Active Isolated Stretching, if you are familiar with that technique), and then CRAC (Contract Relax Agonist Contract) stretching. The workshop finished with neck traction, and joint mobilisation on the neck. The joint mobilisation is enlightening and very few therapists are well-trained in this field. The workshop runs from 9 am to 6 pm every day, with 80-90% hands on.

The Techniques for the Low Back & Pelvis continued in Sydney on 4th-5th July 2011. It covered body mechanics for deep tissue work and stretching for the lower back & pelvis. The workshop continued on advanced stretching, and how to safely perform joint mobilization on the lower back and pelvis. During the stretching and joint mobilisation parts of the workshop, we are constantly reinforced to work from the core body mechanics.

Joseph Muscolino has over 25 years of professional and practical experience. He has authored eight books for therapists that make learning bodywork enjoyable and easy. He is a chiropractor and orthopedic massage practitioner and educator residing in Connecticut. Joe has a great sense of humour that makes all feel comfortable in his presence. Everyone is also impressed with Joe's teaching and enthusiasm; he is able to deliver all advanced materials in absolute clarity. Joe went from table to table giving personal attention and also adding in information. His energy, dynamics, and quality are unsurpassed. Comments include:

Joe Muscolino's workshop

Participants in Hobart (left) and Sydney (right) enjoyed Joe's company.

"*Joe's one-on-one teaching is like a personalized teaching. All my doubts were answered.*"

"Joe always has the time to check & correct for the posture and show me the way to do it. That made me to have more confidence in doing the stretch"

Participants in Hobart found Joe to be truly inspiring. His expertise of working extrinsic and intrinsic muscles with deeper techniques allows the client to reap benefits which are not usually received by lighter forms of body work.

Some personal comments include:

"Joe's teaching method is methodical, full of valuable information, with hands on training and teaching. Bad postural and massage habits I had developed were corrected making my massage techniques more effective with less effort. There was a very friendly and open atmosphere, and Joe was open to seeing the students' techniques as well. The education was invaluable and worth every cent. I would highly recommend Joe's workshops to anyone wanting to improve and add more to their skills. I look forward to future workshops." Lauren Schoenauer, Balmain, NSW.

"I was impressed with the workshops for a number of reasons - firstly, each point was clear, easy to understand and well supported with factual reason. Secondly, it was very hands-on so that each point was able to reinforce immediately with Joe getting to each table to fine-tune or compliment. Finally Joe's persona was engaging, friendly and thoroughly authoritative. I learnt a number of new treatment techniques and looked at ones I have used for some time from a different angle. All well worthwhile." Julian Walker, Frankston, Victoria.

"Joe Muscolino is a master of his profession! His broad knowledge on the human body and extensive experience made the workshops interesting and engaging. The topics were delivered with enthusiasm and great clarity. His instructions were easy to follow and understand and he always had time to check on everyone's hands-on work. Joe is definitely one of the most genuine teachers I've come across. I would highly recommend his workshops to any bodyworker. I, myself, can't wait for the next one!" Zuzana Gaalova, Queenscliff, NSW.

"I can personally tell you his two-day neck workshop was a wealth of information and has convinced me to work more deeply on this region, which is a culprit for many annoying symptoms in lives of our clients." Kay Stammers, Hobart, Tasmania.

Joe shares a lot of his articles and materials presented at his workshops at his website www.learnmuscles.com. Joe's passion for travel, and in particular Australia, will bring him back to our shores (Sydney and Melbourne) in April of 2012. All participants from Sydney and Hobart are looking forward to his next workshops. For more information see: www.terrarosa.com.au/joe

Sander as a Tool for Myofascial Release

By Cassandra Wang

It began with my client who particularly had a difficult shoulder problem in early 2009. I commented jokingly to my client, who refurbishes old wooden windows, that I needed a sander. As the joke settled, the seed of possibility sprouted. He looked at me in disbelief as a smile dawned across my face. Could a sander provider the heat and friction needed for fascia work? I purchased a small variable-speed craft sander, and rubberized drawer liner (this replaced the sand paper.) At at my client's next appointment, we were ready.

The therapy involves the use of a quarter sheet sander, drawer liner, cotton handkerchiefs, and silk handkerchiefs. I use Luigi Stecco's myofascial maps as a guide.

For stretching the fascia lines, use the drawer liner (silicon gel pad can also be used) as there is a more traction effect.

For gel to sol state therapy, use the cotton as more heat is generated. 30 seconds at a time or until there is increased redness to the skin.

For adding qi to the fascia, use the silk as there will be static electricity transfer (in ancient Chinese medicine, it was tradition to massage through silk.)

The session fully reduced the thickened tissue to a normal state resulting in the restoration of pain free range of motion.

Since that time, I have continued to apply the therapy in cases of extreme tissue thickening such as a chronic (8 yr. history) Kyphosis-Lordosis, and a knotted rhomboid (36 yr. history). Also plantar fasciitis responds to it very well.

I don't know why this works from a scientific viewpoint but clients find the therapy comfortable.

Suggestions for a name for this therapy are welcome.

Cassandra Wang has been practising holistic health for 17 years. She practiced at her clinic Body-Psynse in San Diego, CA. Cassandra is a graduate of Pacific College of Oriental Medicine. Her post-graduate education includes all major western and resonant modalities. She has been a massage instructor and a presenter at various conferences and seminars. A native of Greensboro, N.C. She has served 13 years as an Electronics technician and Command Fitness Coordinator in the US Navy. While serving, she obtained a BS in Sociology and was awarded Sailor of the Year. Honourably discharged in 1993, Cassandra continues to serve the cause of better health. Her clientele ranges from infants to seniors and those seeking general health improvement to the terminally ill. Cassandra can be contacted at http://www.bodypsynse.com/

What's New in Fascial Anatomy

By Julie Ann Day

At the 2012 Fascia Research Congress in Vancouver, physiatrist, Dr. Antonio Stecco, and physiotherapist, Julie Ann Day are teaming up to present a full day, post conference workshop entitled "Fascial Manipulation and its Biomechanical Model". Furthermore, Dr. Carla Stecco, orthopaedic surgeon and anatomy researcher, is an invited keynote speaker as well as being part of the scientific committee. She will also be holding an innovative pre-conference fascial dissection workshop. See www.fasciacongress.org for more details.

The more we know about fascial anatomy, the more our clinical work can be effective. The Stecco family and their collaborators continue to produce new studies about fascia, emphasizing the importance of researching this tissue in depth. Here is some updated information I gather from their recent findings.

First, it is important to distinguish between the superficial fascia (SF) and the deep fascia (DF) layers.

This is important because they are distinctly different in terms of structure and function. According to the Stecco studies, the superficial fascia is a membranous layer rich in elastic fibres lying beneath the cutis and within two layers of what is called the "retinacula cutis". The retinacula cutis layers consist in fibrous septa that extend vertically from the skin to the SF, and somewhat obliquely from the SF layer to the DF; adipose lobules lie between these fibrous septa. In general, the hypodermis layer is involved in the gliding of skin on underlying structures, thermoregulation, metabolic exchange, and the passage of nerves, blood, and lymphatic vessels. Clinically, it is probable that light touch techniques (e.g. lymphatic drainage, superficial massage and others) produce effects within this layer.

The deep fascia lies below the hypodermis, forming a sleeve-like layer, particularly in the limbs, which surrounds muscle groups. This layer is continuous with intermuscular septa, the epimysium (and consequently perimysium and endomysium) and, in some areas, with periosteum. The DF as compared to the SF has a robust, multilayer collagen structure and relatively fewer elastic fibres. It is thought to have a mechanical function of force transmission and, due to the large numbers of embedded mechanoreceptors, a possible proprioceptive role. Clinically, it appears probable that sustained or deep friction techniques are capable of altering tissue consistencies in this layer.

Interestingly, recent studies[1,2] have shown that the deep fascia layer in the trunk is quite different, both morphologically and functionally, from that of the limbs. Generally, apart from the thoracolumbar region, the deep fascia of the large superficial muscles (e.g. pectoralis major, latissimus dorsi and trapezius) is thinner (approximately 300 micro meter, *1 micron is a millionth of a meter*) because these muscles actually develop within the superficial lamina of the deep fascia, and are not separable from the same. This fascia adheres to these muscles via numerous intramuscular fibrous septa. Many muscular fibres are inserted into both sides of these septa and into the fascia itself, which provides additional insertions for these fibres. In fact, these muscles originate in the embryo as part of the limbs muscles but they then extend towards the midline of the trunk. Migration of limb muscles into the trunk forms an additional myofascial layer with respect to underlying muscular planes. This ensures functional continuity between limbs and trunk, including myofascial connections between the upper and lower limbs, and the two upper limbs. This firm relationship between trunk fascia and muscles allows for fine orientation of the vectorial forces created by the

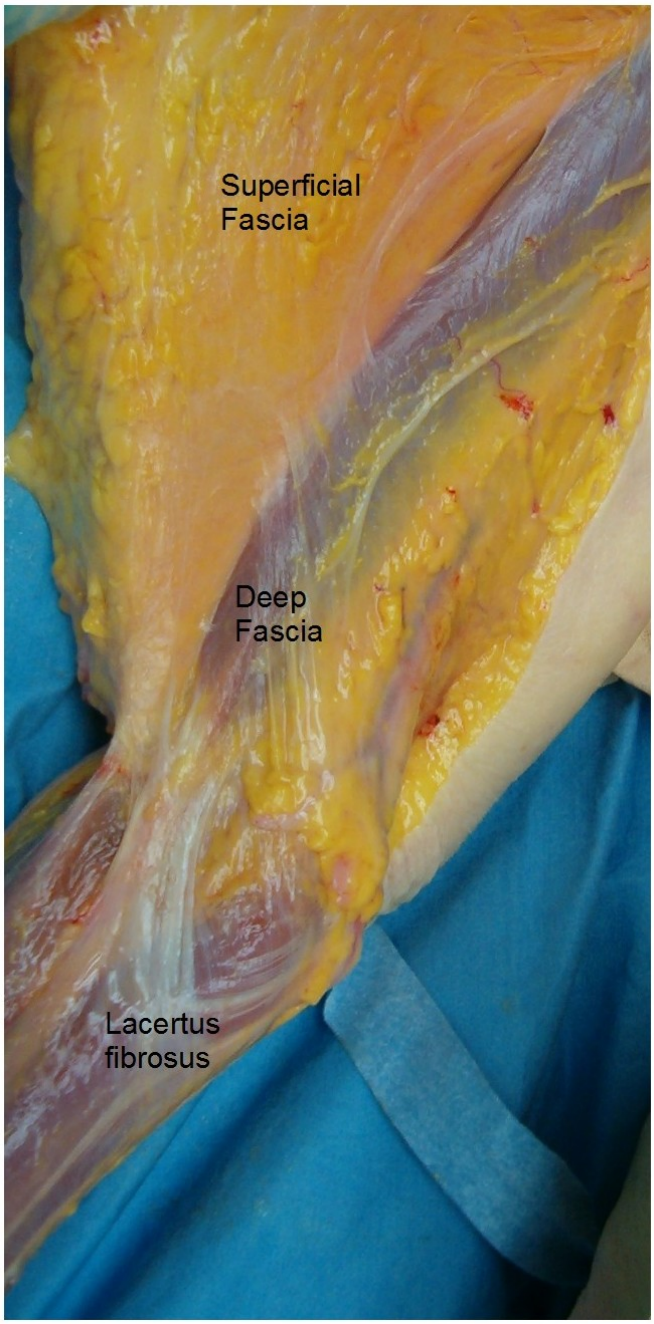
activation of the muscles: different portions of these muscles are activated according to the degree of movement. This modulates the transmission of tension more effectively.

On the contrary, the DF in the limbs is a relatively autonomous structure with respect to the underlying muscular plane. It is a much thicker (0.5 -1.8 mm), with multi-layers of parallel collagen fibre bundles, each layer oriented in a different direction. The difference in direction between one layer and the next has been repeatedly measured to be around 78 degrees. That means that the DF layer can respond to outside stretch quite nicely, with each collagen bundle layer being capable of sliding a little on one another.

In the lower limbs, the DF has significantly fewer elastic fibres as compared to DF in the upper limbs. It is easily separable from the underlying muscles due to the presence of the epimysium, which permits to the muscles to slide independently from the overlying DF. A thin layer of loose connective tissue between DF and epimysium further facilitates sliding. The DF in limbs can perceive contractions of the muscle it surrounds due to myofascial expansions that the muscles extend to the fascia and muscle fibres that insert directly onto its inner surface. We can say that limb fascia is less adaptable than trunk fascia but, being ideal for the transmission of force, it is suited to the function required of our limbs.

The body is a complex system made up of interacting sub-systems. We require interpretative models that simplify the complexity.

Stecco's biomechanical model[3] is an interpretation of one of the body's sub-systems, namely the fascial system and its focus is on the role of the DF within the musculoskeletal system. It essentially shifts our focus from muscles with origins and tendinous insertions moving bones, to motor units activating groups of muscle fibres united by fascia that bring about movement. It suggests that deep muscular fascia could act as a coordinating component for motor units grouped together into functional units (called Myofascial Units: MFU). Stecco has identified key areas of the deep fascia, called Centres of Coordination, where the tensional forces of each MFU coincide. If the DF in these areas is not sliding, then the MFU will be dysfunctional. The premise is that if manual work can restore gliding to the DF in these key areas then it can influence poor muscle recruitment, myofascial force transmission, faulty movement and pain avoidance patterns.



Dissection by Dr. Carla Stecco showing superficial and deep fascia of anterior brachial fascia region. Lacertus fibrosus is highlighted to demonstrate its role as a myofascial expansion between upper arm and lower arm.

For example, in RSI (repetitive stress injuries) it is often important to look beyond the local area of strain, questioning our clients carefully about past injuries in order to identify areas that may have never resolved completely in terms of fascial gliding. While deep fascia derivatives (endo, peri, and epimysium) unite the muscle fibres of single MFUs, the myotendinous expansions mentioned above, together with biarticular muscles, form anatomical bridges between adjacent body segments to form myofascial sequences (see photo of

lacertus fibrosus as an example) . Therefore, myofascial sequences on each plane essentially unite single MFUs together. Knowledge of myofascial sequences can help us to trace back to the origin of a given dysfunction.

The perception of altered segmental tissue texture and its modification during therapy is a daily experience for most soft tissue therapists.

Trauma and injury can apparently alter fascia but further studies are necessary to clarify what actually changes in pathological conditions. Different authors claim that trauma/injury can alter properties of the extracellular matrix due to neurophysiological influences, with water loss in the tissue influencing collagen fibre bundle formation and orientation. Others implicate changes in fibroblasts with their transformation into myofibroblasts. Reduced gliding between layers of collagen fibre bundles within the deep fascia could result in an alteration of the mechanical properties of the fascia.

Fascia demonstrates viscoelasticity, a material property whereby the deformation (strain) that results from a load (stress) will vary with changes in the rate and amount of loading. Loads within the elastic limits of the tissue will deform it but then it gradually returns to its original resting length after the load is removed. Dr. Antonio Stecco is currently researching the role that hyaluronic acid, one of the components of the extracellular matrix, plays in the gliding and the inflammatory response within fascia. It is likely that a modified viscoelasticity of the extracellular matrix, with subsequent misalignment of the endofascial collagen fibres, will affect the fascia's capacity to elongate and to adapt to stretch from muscle fibres.

By applying localized friction in an area of palpable rigidity, therapists can create local heat and this may increase certain chemical reactions within tissues such as reduced secretion of inflammatory cytokines. In a recent clinical study[4], it was seen that it takes an average of 3.4 minutes of deep friction for a perceptible change to occur in rigid tissues. The redistribution of water from the tissue to the anatomical spaces surrounding the tissue also appears to be involved. This change in viscosity seems to involve an increase in the production of hyaluronic acid, and this acid also has interesting intrinsic anti-inflammatory capacities. Improved drainage of inflammatory mediators and metabolic wastes possibly contribute to the changes we feel under our hands. In addition, by reducing chemical irritation of the various receptors within the tissues our clients can experience a reduction in pain and a renewed freedom in movement.

Hopefully, we will gain a lot more information about all this at the next Fascia Research Congress.

See you in Vancouver!

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Julie Day is a physiotherapist originally from Adelaide, and have been living and working in Italy since 1984. She have always used Connective Tissue Massage in her practice and met Luigi Stecco in 1991 in Milan, at a congress about fascia. However, she didn't get around to do Luigi's course until 1999. She became a Fascial Manipulation teacher since 2003. She has taught courses and workshops in Italy, Poland, and USA. She is the translator of Fascial Manipulation English editions (2004, 2009). She is also a founding member of Fascial Manipulation Association in Italy. She presented a one day workshop with Dr. Carla Stecco at the 2nd Fascia Congress in Amsterdam.

Muscle Energy Techniques for the Pelvis

By Tom Ockler, PT

I am often asked by patients and therapists alike, why I start at the pelvis when evaluating and treating a patient, even if their chief complaint is elsewhere, like the neck or shoulder. I explain that the body is like a house and a house sits on a foundation. Structural engineers have known for centuries that if you are not on a solid and symmetrical foundation, problems...expensive problems, will eventually show up. A building or house can adapt slightly by shifting or "settling" and if this goes on long enough, you may see cracks in the drywall, cement, doors and windows become hard to open and close, etc.

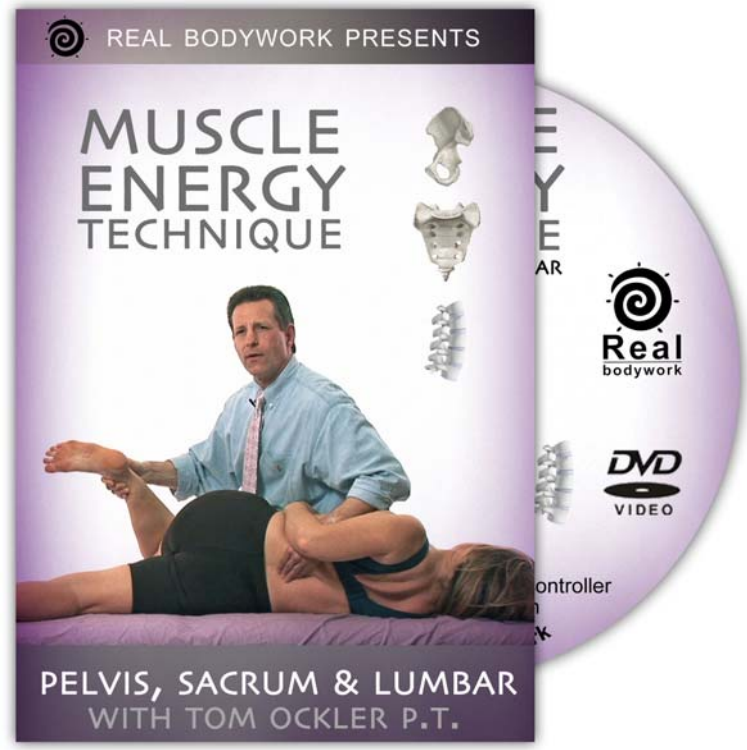
It's pretty much the same with the body. In the human body, the same "settling" (I call it adaptation) can occur as the body attempts to compensate for an unlevel or asymmetrical foundation. When, in the course of human locomotion, sports, slips, falls and life in general, the pelvis and or sacrum become asymmetrical, a functional leg length difference can appear and thus requires an adaptive shift to compensate. Your brain wants desperately for your eyes to level to the horizon so it will adapt to keep them so.

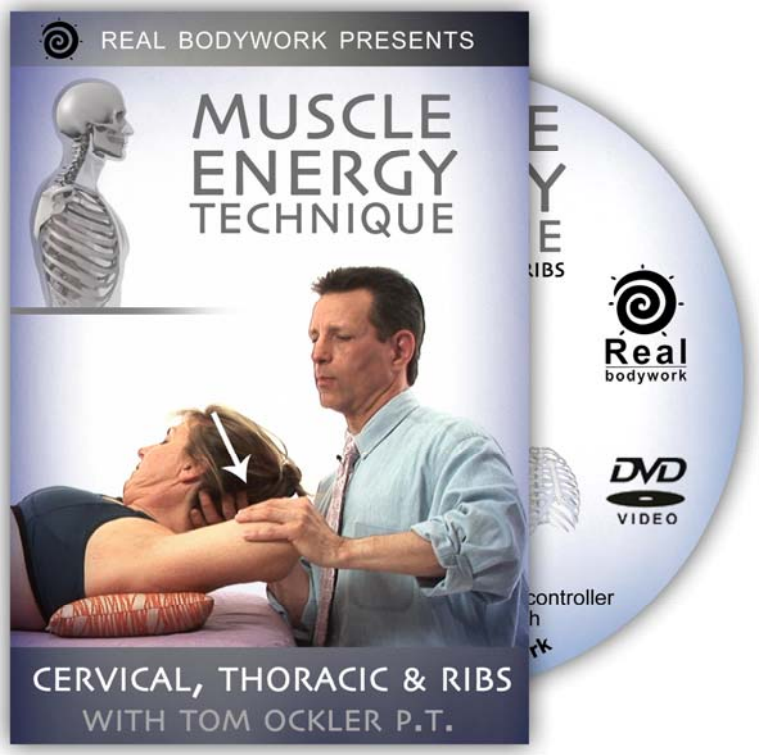
If this adaptation remains long enough, the body will alter its muscle firing pattern to keep us moving and going on with life. When the body can no longer tolerate that particular adaptation, it again alters the muscle firing order to allow us to continue with our daily activities and eventually again, no longer tolerate it. Over and over we adapt until no more adaptations can be made. This point is called “homeostatic brick” and just means, That's it! I can't tolerate this any longer..HELP! Do something. Unfortunately, this is when the patient seeks out our help, after multiple layers have been put down in place making the therapist / body workers job much more complicated.

So back to the original question, why start at the pelvis? Most therapists are drawn to the painful area and that is where we focus our healing attention. If a patient comes in with neck pain and I treated it appropriately with the muscle energy techniques, they would likely be pain free in a few short visits. But, it is also very likely that the problem would re-occur. Why? Remember I said that the body adapts to asymmetries and discrepancies that come about to help keep the eyes and head level (amongst other adaptive reasons.) And if I correct the cervical hypertonicities and hypomobilities that got a foothold as a result of the more proximal (pelvic and sacral) asymmetries without first correcting those proximal (pelvic and sacral) asymmetries, those asymmetries will just recreate the problem in the cervical spine all over again. It's just a matter of time. This is why we have so many repeat patients filling up our already overburdened health care system. Fix the foundation first (M1 manual and DVD) and then its much easier to correct the cervical or whatever other area you are working on. Not only that, they won't become a "frequent flyer" either. But don't worry about losing money if you only see the patient a few times, they'll refer multiple patients, family members, friends, strangers off the street to you. That saves you money on advertising and will fill your schedule up at the same time.

Tom Ockler P.T. has extensive teaching experience throughout the United States, Canada, England and Australia. He was a past Associate Instructor with the Upledger Foundation, teaching in their Muscle Energy and Strain Counter-Strain programs. As a teacher, Tom has earned the nickname "The Patch Adams of Physical Therapy" due to his unique style of injecting humour into complicated subjects. He has developed teaching methods that explain very complicated subjects in easily understandable formats. His two books and DVDs Muscle Energy Technique for Lower Extremities, Pelvis, Sacrum, and Lumbar Spine and Muscle Energy Techniques for the Thoracic Spine, Ribs, Shoulder and Cervical Spine have been hailed by students as the most user friendly and useful Muscle Energy manuals ever. *Read 6 Questions to Tom on page 42.*

The Best Muscle Energy Techniques DVD





ATMS News Autumn 2011, Reviewed by Allan Hudson (ATMS Head of Massage)

"My summary is that this is a high quality DVD; Tom Ockler has the ability to explain each chapter in detail and in a very relaxed, enthusiastic and confident manner. The cost of the DVD is not much in relation to the amount of information clearly communicated. I highly recommend this DVD for all manual therapists who wish to learn about Muscle Energy Technique. "

Get The Rhythm

Oscillatory Movement in Action

By Steven Goldstein

Any method of approach in bodywork optimally should integrate art, science and clinical experience.
Zachary Comeaux

Manual therapy has not utilized oscillation, rhythmic and vibratory applications as effectively as they could. It has long been recognized throughout the bodywork and osteopathic communities as an effective tool to use, but has only been used marginally.

"*Rhythmicity has a natural place in those therapeutic disciplines that intend to restore health by restoring natural motion to the body*". (Comeaux 2008).

In this article I will define how vibration has been used in massage therapy and propose that oscillatory approaches has a strong role in applied manual therapy technique.

As a Part of Swedish Massage Tradition

Massage therapy has long included Swedish massage techniques as the basic in massage education. The preliminary exposure to all advance forms of massage and manual therapy application usually began with the instruction of the 'Big Five'; effleurage, petrissage, friction, tapotement and vibration.

I would like to focus upon the last in the line of instruction. Vibration appears to me to be the poor step-child, that is, students are exposed to the techniques, and asked to apply them for sake of assessment. Because they appear difficult to master, and for that matter, difficult to understand what effect they have in creating soft-tissue change, are often left by the wayside to be discarded as a useful tool in a practitioners 'arsenal'.

"Vibrations are a group of techniques that consist of rhythmic manipulations of the soft-tissues. The rhythmic manipulation has a unique pattern of oscillation, and this pattern depends upon the type of applied vibration delivered, and has a 'vibratory signature'. This signature can be quick, light and rapid, or slow heavy and coarse." (Stelfox, Casanelia & Goldstein 2010.)

"*Oscillation skills link us with vibratory waves that animate the body and all its' systems.*" (Burman & Friedman 2006).

Vibration initiates reverberation, ripple and rebound effects within the body. Tracing and tracking the patterns of these waves is one approach to bringing balance to the body systems.

Vibration manipulation encompasses a collection of strokes that include vibration, rocking, shaking and jostling. Such movements are rhythmic and trembling or oscillating in nature, and may be applied by using the whole hand, the fingertips or even a mechanical device.

All vibratory manipulations commence with some degree of compression. After a desired depth or area is achieved, the hands tremble or oscillate, thus transmitting a 'vibration' into the underlying tissue.'(Stelfox & Casanelia, Foundations of Massage 3rd Ed., 2010 Chapter 16 The techniques of Swedish massage p175, Goldstein & Casanelia)

Osteopathy & Oscillation

Two stalwarts in the osteopathic community who have employed differing yet similar forms of oscillatory technique is an American osteopath, Zachary Comeaux, and a renown British osteopath Eyal Lederman. Both have entitled texts that begin with the word Harmonic. Lederman has written *Harmonic Technique* (Churchill-Livingstone, 2000)and Comeaux has penned *Harmonic Healing: a Guide to Facilitated Oscillatory Release and Other Rhythmic Myofascial Techniques*

Steven demonstrating oscillatory movements in a workshop.

(North Atlantic Books, 2008).

Lederman views how physics is applied when differentiating rhythmic from harmonic technique. Harmonic technique according to Lederman is the recent name given to a group of manual techniques involving gentle rocking of different body masses. "The name 'harmonic technique' is derived from that physical phenomenon called harmonic motion. This describes the rhythmic and cyclical motion of an object between spatial positions. Such patterns of movement are common to many structures in nature, including the human body. In the body, different tissues and masses display their own distinct rhythmic patterns, which are apparent during movement. These patterns are elicited during harmonic technique by applying periodic force to the patient's passive body. As these oscillations are associated with cyclical motion of joints, they can be used as articulation or soft-tissue massage." (Lederman 2000)

Comeaux also speaks of how the lineage of rhythmic motion approach was passed down from Andrew Taylor Still, the founder of Osteopathy, to his student John Martin Littlejohn, the founder of the British School of Osteopathy. Comeaux has constellated his learning from the osteopathic elders to integrate the use of oscillatory force and has named this modality as Facilitated Oscillatory Release (FOR).

Comeaux has integrated the latest theory of connective tissue research including the principles of Tensegrity, piezoelectricity, thixotrophic and tonic vibratory reflex effects. With James Oschman's Living Matrix, Comeaux views the field of bioenergetics, where traditional science has viewed as 'pseudoscience'. This is especially prevalent in the field of physiotherapy, where the majority of therapists subscribe to 'clinical reasoning' is obtained from only clinical based research and trials. Massage therapy has its same dilemma, as medical massage and rigid orthopaedic assessment is what the field know supposes as the norm. This 'pseudoscience' is at the heart of where considerable research in the past has been and is being accomplished. Especially the how and why bioenergetics phenomena exist and that it might have clinical relevance for manual therapists.

Comeaux & Oschman have long recognized how connective tissue has been known to have holographic communicative properties, and again the skeptics will argue that this is misappropriation of quantum physics to prove energetic. But this is exactly the excitement that pervades those that know how the energetic form exists and a clinical attempt to harness this form.

The form is the use of oscillation in a manual therapy setting, used for both diagnostic and treatment purposes to achieve desired clinical outcomes.

Comeaux uses FOR as a method for applying oscillatory force in a treatment sequence intended to normalize muscle tone and articular balance in traumatized or strained tissue.

At the 2nd International Fascia Congress held in Amsterdam October 2009, Comeaux demonstrated FOR to a group of scientists to stimulate a dialogue finding the mechanisms for the oscillatory technique. FOR is used for reversal of restricted motion (restore mobility) resulting from trauma and strain.

Comeaux noted that the FOR is a controlled a technique directed towards specific tissue with a specific goal, not just a general broad technique. It is a localized specific diagnostic. However it is not used by its own,

but can complement and be integrated with other techniques.

He hypothesized FOR works by the following mechanism:

- Engagement of body's endogenous rhythmic character. The body has a oscillation property: the peripheral and central nervous system. It is also called the tonic vibratory reflex.
- Conditioning by repetitive stretch which can induce the change in fascial tissue fibrin matrix .
- Pumping intra-compartmental fluids.
- Psychogenic, inducing relaxation.
- Enhanced Parasympathetic response.

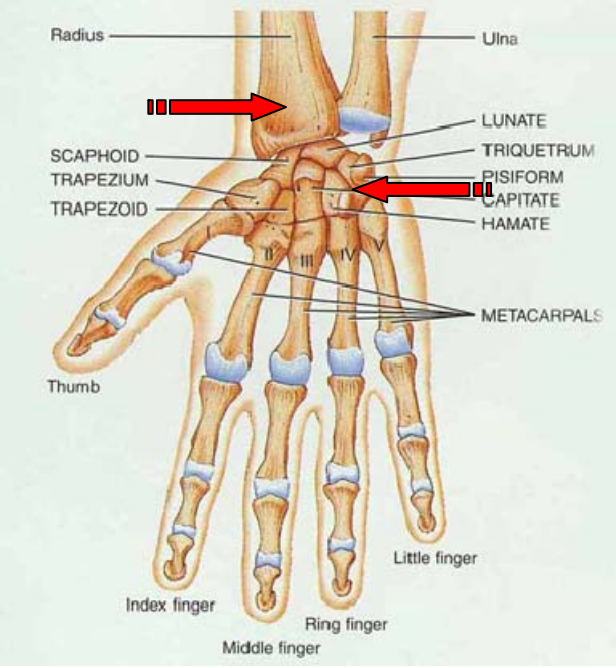
The Use of Oscillatory Technique

The ability to effectively utilize oscillation comes first with comfort in the practitioners own body.

Beginning therapists must find a state of fluid relaxation in their own body with a preferred state of a quiet inquisitive mind. When utilizing vibration or oscillation, and one will find oscillation to be more desirable in application than that of static vibrations, the practitioner strives to harness the laws of physics. Moving a body mass is harnessing the patient's own body, instead of supplying all the force from the practitioner.

The practitioner must have an awareness of the effect the oscillatory motion is having on the client in a general autonomic sense, and how this action can target specific soft-tissue structures or regions.

Do not underestimate the effect this motion has upon the body. Lederman states, "Probably the most important clinical development in harmonic technique has come from studies in disciplines outside of manual therapy. These studied have examined the effect s of passive motion on the repair process in the body and have demonstrated the importance of passive movement as a stimulus for normal homeostasis of connective and muscle tissue. Following injury, passive movement has been demonstrated to improve the quality of repair in articular surfaces, muscles, tendons and skin, as well as the revascularization of the healing tissue. Passive intermittent compression has been shown to be a potent stimulus for fluid flow in the body, and important in treating inflammation and ischaemia where there is an impediment to flow." (Lederman 2000).



Oscillatory technique can be applied anywhere on the body. Upper and lower extremity, using rhythmic rocking, shaking or jostling, or moving the axial spine by mass oscillation.

Practical exercise

Locate a joint that feels restricted. Let's look at the wrist for a moment.

First assess in a normal anatomical manner, passive range of motion at the wrist. This would include wrist flexion and extension, ulnar and radial deviation. Also assess radial pronation and supination for the forearm and elbow.

Next use passive accessory motion assessment by stabilizing the radius and ulna with one hand and attempting to assess anterior-posterior, lateral distraction or displacement, compression and distraction directions whilst holding the distal carpal row.

Once your assessment is complete, decide upon an oscillatory technique. Perhaps limb shaking, or light jostling of the wrist, or gentle moving the wrist through the various ranges of motion by fluttering or moving the hand. What you find is that due to the sophistication of articular receptor, usually both the quality of articular motion and the quality of soft-tissue tonus will change.

You could rest the forearm on the table in a handshake position with a relaxed elbow joint and attempt to role the radius over the ulna by applying movement to the brachioradialis.

All rhythmic actions will usually have slight to strong effect on the tissues.

Before long to can target the type of oscillation to achieve quite specific results. Have Fun and Experiment with rhythm!

Steven will be introducing his own Oscillatory Vibratory Workshop the second half of 2011.

Visit his website for details www.fascialrelease.com or email: stevgold51@optusnet.com.au

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Steven Goldstein, an American émigré to Australia in 1999, resides in Melbourne, Australia, where he holds a Bachelor of Health Science in Musculoskeletal Therapy and Bachelor of Arts in Education. He is an innovative massage educator instructing his unique blend of direct myofascial, indirect osteopathic releasing methods and somatic approaches known as Integrative Fascial Release (IFR) internationally since 1995. Steven regularly teaches IFR and Oscillatory Movement to manual therapists, osteopaths, and physiotherapists in Australia, Poland, and London.

An interview with Eli Thompson

When and how did you decide to become a bodyworker?

It was really a blessing in disguise. During my third year studying Mechanical Engineering I caught Hepatitis A from a local fast food restaurant. There was a small epidemic and about 100 people got sick. It knocked me out for a couple of months and when I returned to school, I realized that I was really not that interested. I was going through the motions. I started looking for something else but also looking inwards. I stumbled into the local massage school and the seed was planted. It grew remarkably fast. Working one-on-one on a manual level engaged me in a much more fulfilling way.

During the first year of my Massage training, I took Tom Myers' Anatomy Trains (AT) workshop. This really opened my eyes to the possibilities of the work. Because the AT theory pulls from so many different fields it acted as a unifying field theory for me, unifying my two worlds. It brought in my love for the new sciences as a foundation for this rather new and foreign interpersonal, touchy-feely stuff. Three years later I was certified by Tom as a KMI Structural Integrator and three years after that as a certified teacher for his School of Kinesis. Now I teach the Anatomy Trains and try to inspire others as Tom inspired me. I love it!

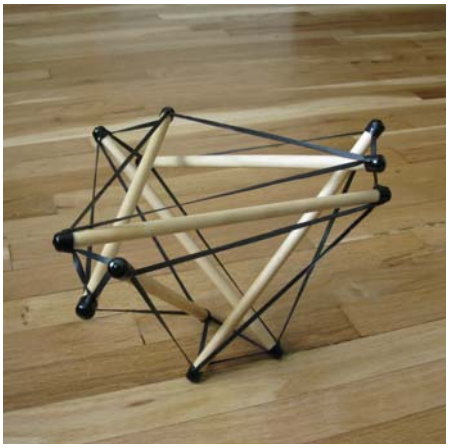
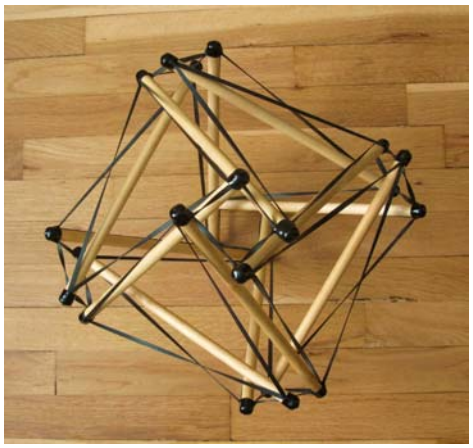
Can you describe in simple terms the concept of Tensegrity.

Tensegrity is a wonderful design principle that is used by nature everywhere. It was discovered by Kenneth Snelson, popularized by Buckminster Fuller, and a new field of research has grown around it called Bio-Tensegrity.

A Tensegrity model is composed of several solid struts that do not touch each other but rather float in a web of tension. The struts resist compression and are always pushing out while the tensile bands are resisting expansion and always pulling in. The balance between the two creates a very stable and dynamic structure. Integrity through tension; thus the name Tensegrity. The benefits of these structures is that they are always distributing strain evenly through-out the whole structure. That implies that when a tensegrity structure gets hit the whole structure takes the strain, not just the part that got hit. In comparison, a compressive model like a stack of bricks is not dynamic and all the strain accumulates at the bottom brick and the strain of an impact is managed very locally. Another remarkable property that only exists in Tensegrity structures is that if you compress a model in one dimension, the whole model will compress in all three dimensions. And the opposite is true, too. If you expand a Tensegrity model in one direction, the whole thing will expand and grow.

How does Tensegrity relate to the body and how can it be used in bodywork?

If we consider the body from the old western muscular skeletal system, the body becomes a stack of bones with hundreds of muscles hanging off of it, somehow managing to create our graceful movement. It's a parts based view and it's a hard for us to relate to it as movers. However, if we consider the body from a myofascial-skeletal system, the image changes dramatically. We start with one seamless fascial web organizing every stitch and fold of the body. Within that webbing we find concentrated pockets of muscle fibres imbedded within that web, organized neatly around a skeletal system that is being balanced and organized by the tension within that web. This is a much more holistic view that becomes much more viscerally believable. Now,

when you look at a Tensegri-Teach model it is not too big of a leap to visualize the struts as bones and the web of interconnecting bands as the fascia with the elastic nature of the bands representing the neuromuscular control of our bodies.

From a Tensegrity perspective it implies that the fascial web is always trying to distribute the strain in our body evenly, no matter what we are doing. The more stuck our tissues are the less strain is distributed through-out and the more locally it is handled. Also, the tighter we hold ourselves the more we compress globally. Our job is to free up the tissues and help the body handle its strains globally, in an expansive way.

Unfortunately, Tensegrity is quite a hard model to visualize and explain to your clients. They really need to see it and hold it and play with it. Once they feel it, it becomes much more real and meaningful to them. Only then can they appreciate the benefits of working with a manual or movement therapist who understands this.

How the Tensegri-Teach models can be used as a teaching tool for bodyworkers?

There are several obvious properties that people get as soon as they hold it. The idea that the dowels represent the bones balanced in the web of tension of the fascial web and the elasticity of the bands representing the neuro-muscular control of the tension in the web just takes saying. When they start pushing and prodding the structure I will point out that as they move one dowel, all the dowels adjust. This is the strain distribution aspect of tensegrity. It represents the fact that no muscle ever works in isolation in the body and as soon as one thing goes off in the body, the whole body starts adapting and compensating for it. The longer that happens the more it gets fascially grown into the system. It helps show the client that their shoulder problem is not only in the shoulder and the body wide pattern must be considered.

These ideas are very holistic and naturally believable to even the lay man. It doesn't take much convincing to get the client to buy into it. But being able to hold it and feel it and see it makes it even easier.

How did you come around making Tensegri-Teach model?

I was first introduced to Tensegrity by Tom in the Anatomy Trains workshop and his certification program. Back then there was a nice tensegrity kit called a Tensegri-Toy available. However, a few years later, the company closed. I was already producing Bench-Works: The Bodyworkers Bench and so I recognized the need and took on the challenge. A few prototypes later, the Tensegri-Teach model was born.

The standard Tensegri-Teach comes with the 6 dowels, are you able to do more with that?

Yes, there are any number of shapes and designs you can create with the Tensegri-Teach system. One model will allow you to create the basic Icosahedron which you can play with to create a number of different looks to it. As you add more dowels you can create bigger and bigger structures. Two Tensegri-Teach models will allow you to create a 12 dowel Octohedron. With more models you can create towers, bridges, or dome like structures that are ever increasing in complexity and adaptability. However, the simple 6 dowel and 12 dowel models are sufficient to explain the principles of Tensegrity to one's clients.

I saw that you have created a Geodesic Dome model just by using simple plastic tubes.

Yes, the Dynamic Geodesic Model illustrates how the dynamic stability of a tensegrity structure dependences on the amount of tension within it. If it is too tights it becomes stronger but more rigid. If it is too loose it

becomes wobbly and unstable until it eventually collapses under its own weight. Most cell membranes use this property of Tensegrity to organize their internal structure. For example, a Leukocyte cell holds a good amount of tension across its membrane most of the time and that gives it a spherical shape. However, when it reaches a site of inflammation it reduces that tension and morphs into a flat cell that can squeeze in between the cells of the capillary wall. Once it is through, it recreates the tension in its tensegrity structure and reforms into a sphere. This kind of dynamic adaptability is happening all the time in our bodies. This is illustrated marvellously in the Harvard Biovisions video available on Youtube http://youtu.be/HiWKHsgJ8uw.

What do you find most exciting about bodywork therapy?

I find the potential for the personal, psycho-emotional, spiritual changes most exciting. Even though this is something that can't really be planned or expected through the work, when it happens its quite wonderful. When I work with a client, I 'see' their structural imbalances and the resulting dysfunction. That is something I can work with and guild them towards long term, dramatic changes. However, I also know that as their body changes, they will change in a much deeper but more unpredictable way. As their body changes, their awareness and understanding of their body grows, too. They have the potential to live in that body differently and embody themselves differently. To feel themselves differently. To be different. It may happen in recognizable ways or it may be unrecognized by me or the client. If we change the vessel for the spirit, the spirit may manifest in new ways that can be quite wondrous. That is the magic of this work.

What is the most challenging part of your work?

I would say that shifting from a parts based, reductionist perspective of the body to a systems based Fascial Tensegrity model has been the hardest process (learn more at the AnatomyTrains.com). We are so entrained into parts based thinking. Almost everything is organized that way. But when we fully shift into a 4-Dimensional (time being the 4th) view of a completely interdependent, interwoven system we start gaining a fuller understanding of the complexity of the human body. We start being able to imagine how the changes we make will propagate over time and plan for it. It allows a multi session series to gain greater cohesion momentum and cohesion. It makes it more of a growth process than a foreign intervention that the body must struggle to adapt to and integrate. It is not a science but an art and has taken me about 10 years to start thinking in those terms.

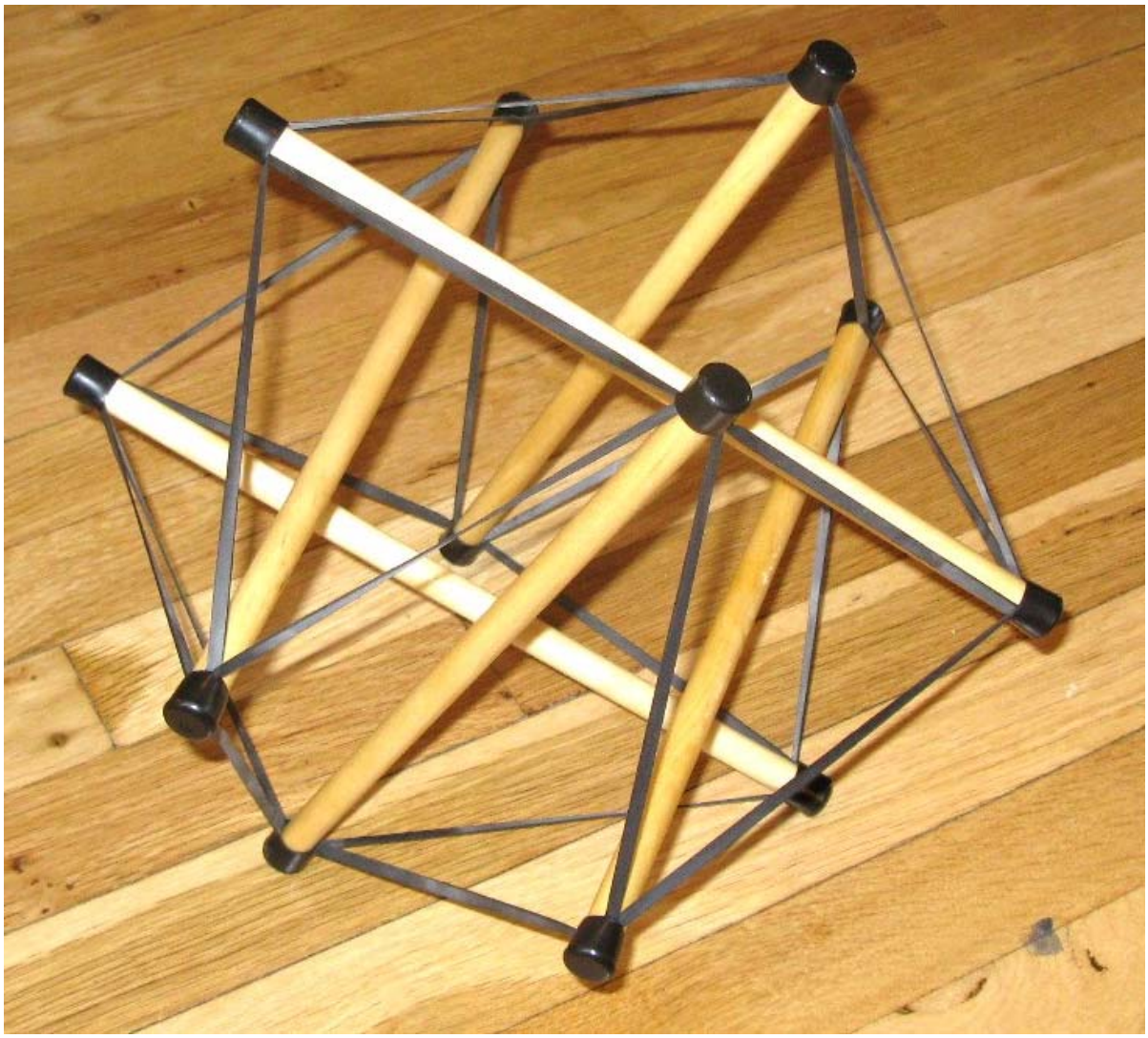
What is your current project?

I have recently redesigned the BenchWorks bench. In Structural Integration, some of the work is performed on a seated client. There are several benefits to that such as improved ergonomics, the client is more involvement in stabilization and weight bearing, and there is an increased educational component to the client of how to organize in the seated posture. We do spend so much time in that position after all. Ida Rolfs bench hadn't been redesigned since she originally created it and it was not readily available at the store. So I used my engineering background to create the BenchWorks bench which is lighter, easier to adjust, costs substantially less, and is available internationally. This second version was an attempt to reduce the chance of human error in adjusting the seat height. Overall, I am very happy with the improvements.

How do you see the future of bodywork and massage therapy?

I see the Manual and Movement / Strength Training professions as potentially leading the evolution of Spatial Medicine. The appreciation of how the spatial relationships in the body impact our health and function is growing. I feel that the more we focus on how seamless and integrated our Neuro-Myofascial-Skeletal systems are the more we will understand how to maintain a vibrant, dynamic body that can readily handle the changing stresses of life. I think that over the next 30 years we will show to the medical community how much can be changed with manual work, and how effective and cost effective it can be in the long run.

Eli is the founder of Benchworks Bench and Tensegri-Teach: Dynamic Learning Tools for Manual Therapists. He is also a Massage Therapist, KMI Structural Integrator, and teacher of Tom Myers School of Kinesis.



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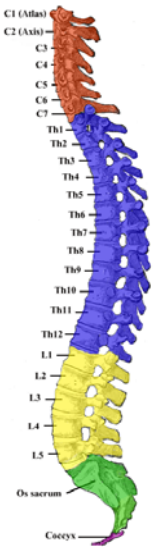

The Transverse Diaphragms

The Transverse Diaphragms

The transverse diaphragms are layers of connective tissues and fascia that run transversely through the body, these layers are perpendicular to the common myofascial planes which run longitudinally through the body. (Diaphragms comes from ancient Greek word diaphragma which means partition0).

Anatomically, the transverse diaphragms occurred in certain junction areas of the body. The concept of transverse diaphragms originated in Osteopathy, and have been used in myofascial release and Craniosacral Therapy [1].

Transverse Diaphragms occurred in what is known as *transitional zones*, or anatomically known as *junctions*, where the function of the spinal column changes. Osteopath Gordon Zink, DO considered these as the anatomical weak points [2]. Manual therapists have frequently find that these transitional regions are where most fascial restriction, muscular imbalance or somatic dysfunction can be found.

The transverse diaphragms help to compartmentalize different body cavities (Fig. 1). There are 4 major diaphragms in the body: the cranial base, thoracic inlet, respiratory diaphragm, and pelvic floor. They occurred at the junctions where the regions of the vertebrae change function. Each diaphragm is unique, stretches from the front of the body, to the back.

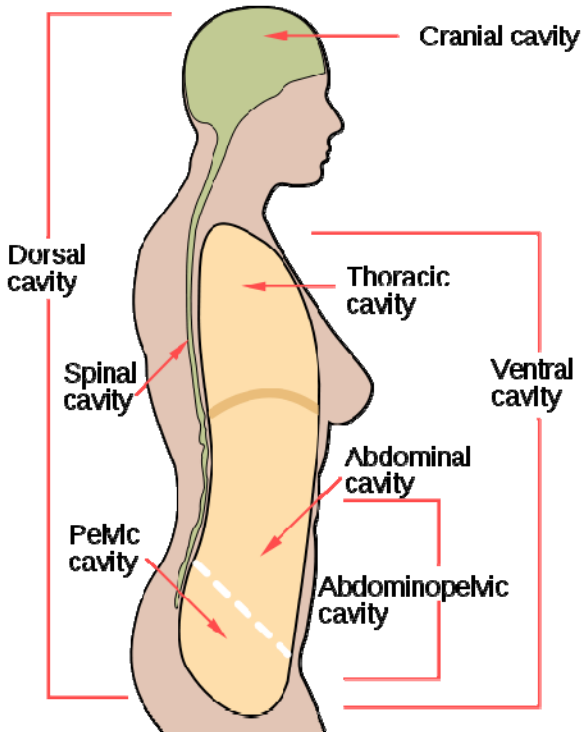

Fig 1. Major body cavities found in human. Image from Wikipedia.

The diaphragm also serves as a 'dam' of membrane or flexible layer that separates one space from another. Manual therapists often find repeated restrictions these areas, and this led to the hypothesis that these diaphragms act as dams which prevent the flow of fluid throughout the body. The transverse layers of connective tissues can inhibit the smoothness of fascial glide that run longitudinally throughout the body.

These areas can augment (when they are functional) or inhibit

Table 1. Transitional zones, junctions & transverse diaphragms (after Pope [2])

Transitional Zones	Vertebral Junctions	Transverse Diaphragms
Occipital-Atlantal (OA)	Craniocervical	Tentorium Cetebelli
Cervico-Thoracic (CT)	Cervicothoracic	Thoracic Inlet/Outlet
Thoraco-Lumbar (TL)	Thoracolumbar	Respiratory Diaphragm
Lumbo-Sacral	Lumbosacral	Pelvic Diaphragm

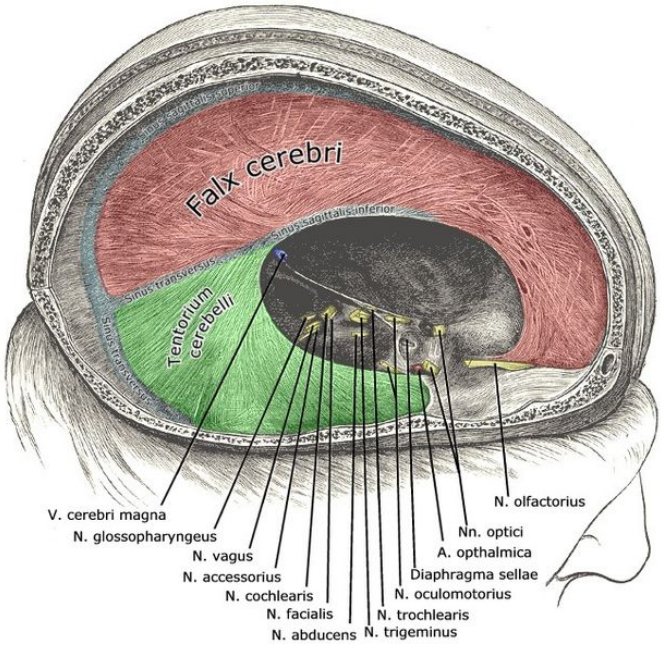

Fig. 2. Tentorium cerebilli (from Gray's Anatomy)

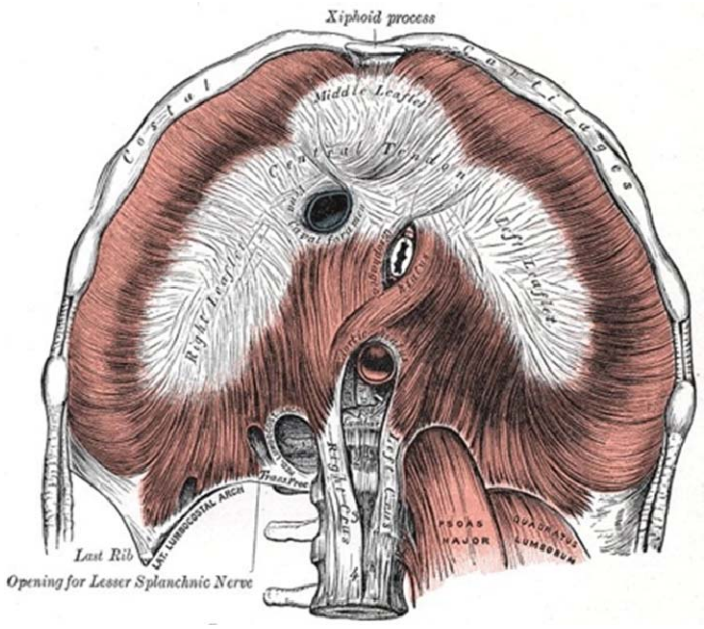

Fig. 3. The respiratory diaphragm (from Gray's Anatomy)

(when they are dysfunctional) the flow of interstitial fluids. The area of dysfunction constitutes a region where the interstitial fluid is not moving.

The Craniocervical Junction

It is a complex articulation between the occiput, atlas, and axis. There is extensive mobility at this junction, the heavy head balances on the supple cervical spine. This is the site of the tonic neck reflexes, which influences postural muscular tone throughout the trunk. If function is disturbed here, it frequently creates hypertonus of the postural muscles, disturbances of equilibrium and locomotor deficits [2]. The tentorium cerebelli (Fig. 2) is found here, it is an extension of the dura mater that separates the cerebellum from the inferior portion of the occipital lobes.

The Cervicothoracic Junction

The cervicothoracic junction is the region where the most mobile part of the spinal column is joined to the relatively rigid thoracic spine. It is also where the powerful muscles of the upper extremities and shoulder girdle insert [2].

The thoracic inlet diaphragm covers the superior thoracic aperture(the superior opening of the thoracic cavity). Anatomically it is referred as the thoracic inlet and clinically as the thoracic outlet. This is also where the brachial plexus passes. Impingement of the plexus in the region of the scalenes, ribs, and clavicles is responsible for thoracic outlet syndrome.

Thoracolumbar Junction

At the thoracolumbar junction spinal function changes abruptly as is seen in the differences in the upper (thoracic) and lower (lumbar) joints. Somatic dysfunction in this area can be associated with hypertonus of the iliopsoas, quadratus lumborum, thoracolumbar erector spinae and inhibition of the rectus abdominus muscles [2].

The respiratory diaphragm (or called thoracic diaphragm in anatomy), is found in this transitional zone (Fig. 3). The diaphragm separates the thoracic cavity (heart, lungs & ribs) from the abdominal cavity and performs an important function in respiration. Contraction and relaxation of this diaphragm provides the function for breathing and it also produces alternating intrathoracic and intra-abdominal pressure gradients which provide the pumping mechanism for the venous and lymphatic circulation.

Lumbosacral Junction

The lumbosacral junction forms the base of the spinal column and is therefore a major determinant of body statics. Movement from the legs is transmitted through this junction to the spine. The pelvic diaphragm orpelvic floor is associated with this junction (Fig. 4). It is composed of muscle fibres of the levator ani, the coccygeus, and associated connective tissue which span the area underneath the pelvis.

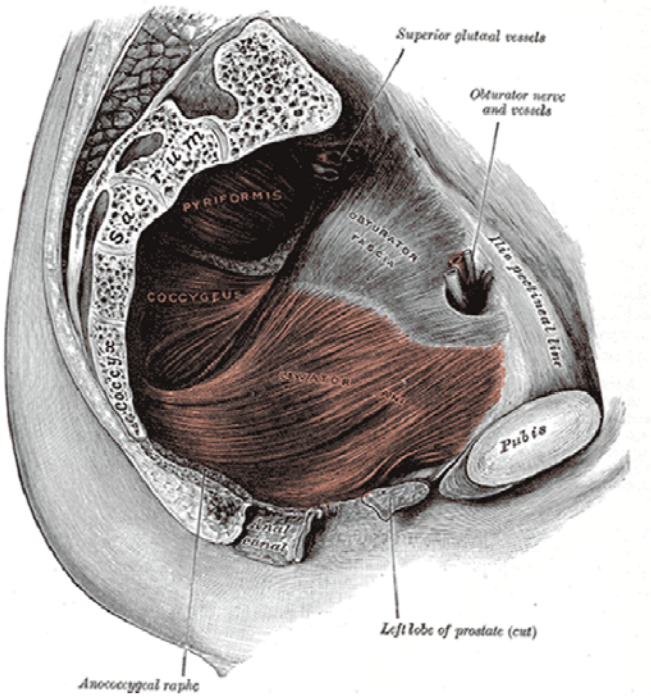

Fig. 4. The pelvic floor (from Gray's Anatomy)

The Eight Diaphragms

The Dallas Osteopathic Study Group have further identified eight diaphragms [3]:

1. Plantar fascia
2. Knee diaphragm
    a. Popliteal fascia
    b. Cruciate ligaments and transverse ligament of the knee
3. Pelvic diaphragm
4. Respiratory diaphragm
5. Thoracic outlet
c. Anterior cervical fascia
d. Subclavius muscles, costocoracoid ligaments and costoclavicular ligaments
6. Suboccipital triangle
7. Tentorium cerebelli
8. Diaphragm sellae

In myofascial release, the function of the diaphragms is evaluated by feeling for the quality—its volume and smoothness of flow—of the tide flowing through each diaphragm. The amplitude and the quality of the tide is more important rather than its frequency. Myofascial release aims at removing the "obstructions" to the flow of the interstitial fluid, which allows the tide to move more smoothly and at its optimum amplitude [3].

The myofascial release technique at each diaphragm is basically the same, with a modification of the position of the therapist's hands. Place one hand below the area

Fig. 5. Myofascial release for the pelvic floor. Photo from Beginning Myofascial Release by Real Bodywork. Photo used courtesy of Real Bodywork.

(under the client) and one hand over the area of the diaphragm. Apply a gentle pressure focussing on the diaphragm, and follow any inherent tissue motion. It is important not to allow the tissue to go back in the direction from which it has just moved. This hold will produce a softening and lengthening of tissues. Sometimes it can increase the breath, build-up of heat, and stomach gurgling. It can also encourage unwinding or unconscious movement of limbs. When a pulse, or energetic repelling is felt, it signals that the release is complete and the therapist should remove their hands. Often the signs of completion are a dramatic sigh, but just as often, a simple feeling on the part of the therapist that they are "complete" at that spot and their hands should move on to another location [3].

This myofascial release treatment aims to decreases tissue hypertonus, promotes energy and fluid exchange, and restores mobility and balance to their constituent structures.

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True Grit of Muscle Spasm

By Erik Dalton PhD

Much has been written about loss of flexibility and range of motion due to fascial contractures, trigger points, spasmodic muscles and the like, with less emphasis on the neurology that may be initiating these soft tissue changes.

Here are some thoughts on how injuries to joint capsules and spinal ligaments can reflexively spasm neighbouring tissues leading to decompensation, altered movement patterns and pain-spasm-pain cycles.

When the brain senses bony instability or ligamentous damage in-and-around the spine, information is collected so split decisions can be made to determine the extent of threat to the individual and what actions (if any) need to be taken. Layering the area with protective myospasm is one such decision. It's the brain's reflexogenic attempt to prevent further insult to the injured tissues. By 'splinting' the area with spasm, the hypercontracted (shortened) muscles, ligaments and fascia effectively reduce painful joint movements. Splinting is a common form of protective guarding clinicians address day-in and day-out... *but how does it develop and how should we treat it?*

Recently, a chiropractic buddy referred a client named Hank who came in carrying a diagnosis of chronic muscle spasm. During Hank's history-taking, he related a story of a bending/twisting incident that occurred while lifting his toddler out of the back seat of the car. Apparently, this asymmetric spinal loading maneuver resulted in 'stabbing' back pain which almost brought him to his knees. After a few treatments, the chiropractor decided Hank's back was too locked up and needed some deep tissue and stretching work. His treatment plan was to have me 'dig out' the spasm and then he would mobilize the fixated spinal joints.

Observations during gait revealed a lack of smooth cross-patterned movement between Hank's torso and hips and very little "lift" in his antigravity spring systems [1]. In fact, he wobbled from side-to-side much like John Wayne's Rooster Cogburn character in *True Grit* [2] (Fig 1). The chronic low back pain had disrupted Hank's hip abduction firing order pattern forcing him to recruit the ipsilateral QL (instead of gluteus medius) to hip-hike and lift the swing leg. It was obvious that Hank's lumbar spine had been locked with spasm for some time but elbowing the spasm didn't seem to be the answer.

Figure 1 Public Domain, John Wayne

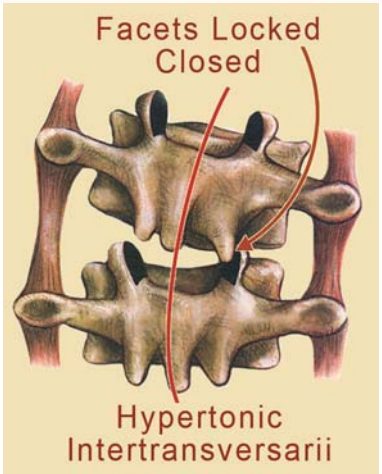

Figure 2 © 2011 www.erikdalton.com

Figure 3

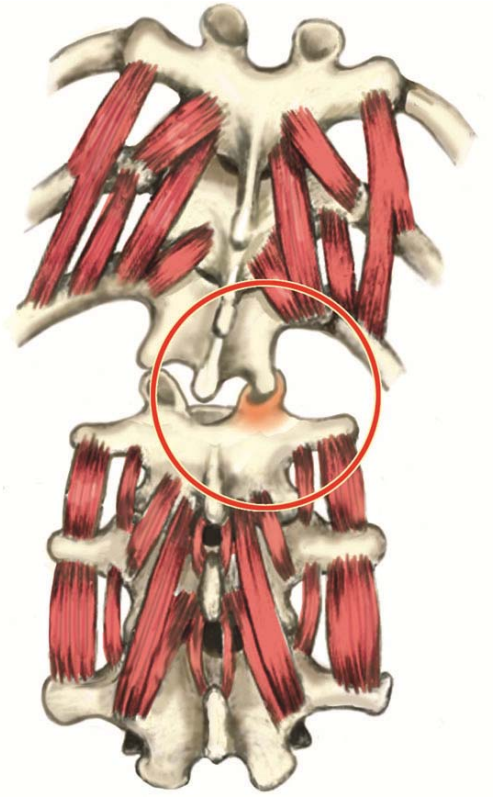

Figure 4

History and Motion-Testing

Hank's back pain history and motion testing results suggested an unstable spine that had not been allowed proper healing time due to overstretching and chiropractic adjustments. The heat emanating from Hank's back indicated an active inflammatory process at work...probably due to articular cartilage derangement and/or spinal ligament damage. When pain and inflammation bombard the central nervous system, joint reflexes are stimulated that can disrupt normal low back myo-mechanics. To test, I asked him to slowly forward bend as I palpated for low back asymmetry. This manoeuvre intensified Hank's dull, aching pain on the right side at about L4-5. As he reached his end range of trunk flexion, I applied a little overpressure which caused the right L4 transverse process to posteriorly rotated against my palpating thumb suggesting the L4 facets on the right were unable to disengage from L5 (Fig 2). To verify, I had him stand straight and try to right sidebend his torso. Normally, I'd expect the L4 transverse process to left rotate against my thumb during this manoeuvre, but the joint mechanoreceptors refused to take the joint beyond its painful restrictive barrier by inhibiting the left spinal side-benders...particularly QL (Fig 3). While motion-testing the joints, I noticed lack of tone in Hank's multifidus muscle on the right.

Typically, when palpating deep lamina groove muscles (rotatores, multifidi, intertransversarii, etc.), I expect to feel 'knotty' fibrosis on the side of dysfunction. These are usually the first muscles recruited as the brain's neuromatrix scans and 'maps' the dysfunctional area. If it senses exceptional weakness, it'll stiffen these short-lever muscles to protect an unstable spine (Fig 4). The burning question is this: *Does joint blockage or ligamentous damage always result in deep intrinsic muscle hypertonia (fibrosis) or, as in Hank's case, can the tissue sometimes become hypotonic or inhibited?* Contrary to what I was taught in Philip Greenman's osteopathic model [3], secondary muscle changes in the deep groove muscles from joint blockage ***do not always*** result in hypertonicity or spasm. In fact, Dr. Stuart McGill found that when a lumbar facet joint became displaced during a lifting incident, the multifidus on the side of the fixated facets began to atrophy within 24 hours.[4] (Fig 5).

Calling in the Subs

When the brain senses weakness or injury in osteoligamentous tissues, it calls for help from middle layer (core) stabilizers such as the QL, psoas, transverse abdominis, etc. Regrettably, this middle layer postural support system is best designed for lumbopelvic bracing to allow global (extrinsic) muscles and fascia to carry out normal movements of daily living...***not for facet joint stabilization***. Therefore, when the middle layer is recruited to "sub" for fixated facets or damaged spinal ligaments, firing order patterns are skewed,

motor recruitment is garbled, and coordinated movement suffers. Bottom line: Prolonged joint damage can set the stage for aberrant posturo-movement patterns which, in time, causes the brain, through the process of sensitization, to re-map and re-learn the dysfunctional movement as normal (neuroplasticity).

Due to our population's general lack of proper core support and our inability (through lack of good functional movement training) to adequately activate the middle layers, many, like Hank, find it hard to "hold on" until ligaments heal, fixated facets are released and myo-mechanics are corrected. Sadly, when the oxygen-burning middle layer muscles run out of gas, the load falls back to the damaged joint capsules, spinal ligaments and articular facets which further intensify the pain-spasm-pain cycle.

Regardless of the reason for loss of joint play, when vertebrae are not free to move, muscles assigned the job of moving them (prime movers) cannot carry out their duties and are substituted by synergistic stabilizers, i.e., the brain sends in the subs when a key player is injured. The final stage of dysfunction occurs when the middle and deep spinal layers both collapse causing the load to shift to global (outer layer) dynamic muscles such as the erectors, obliques and lats. These fast-twitch muscles burn glucose and are designed to provide bursts of energy. Spasm develops when they're forced to act both as movers and stabilizers. As they tire and tighten, the lubricating fluid between fascial bags begins to dehydrate and the facial envelops adhere to neighbouring structures often resulting in a big 'wad' of hypertrophied erector spinae tissue that therapists beat on session-after-session.

Summary

Once ligaments and joint capsules have healed, manual therapists can help maintain flexibility by elongating cross-linked collagen fibres in the joint capsules and balancing the middle and outer musculo-fascial tissue layers. Myoskeletal articular stretching techniques designed to minimize the accumulation of nociceptive tissue irritants at the injured site help normalize afferent messages to the brain; thus reducing protective muscle guarding around the dysfunctional joint. Once pain-free movement is established, functional movement training effectively restores motor control patterns and allows the brain to re-establish optimal posturo-movement patterns.

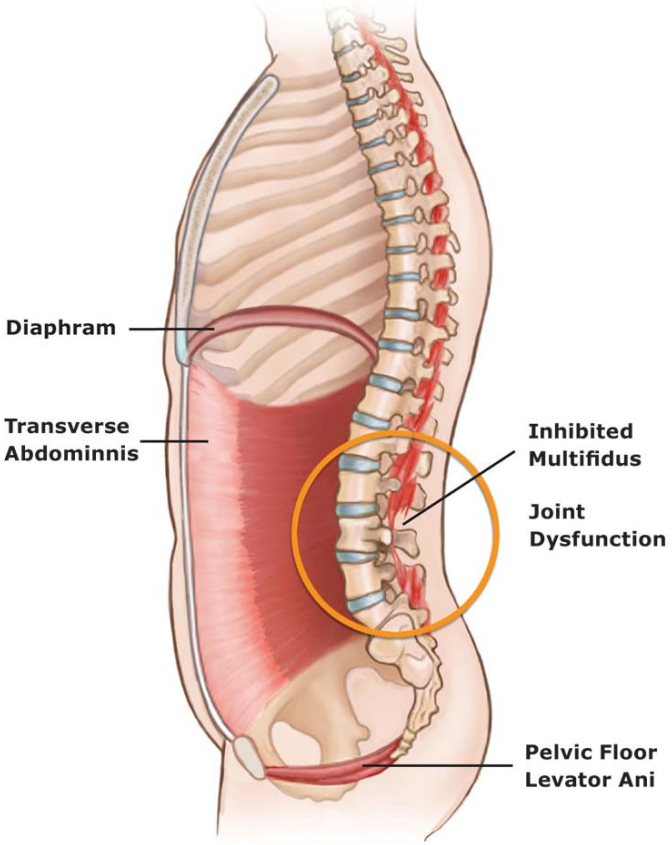

Figure 5

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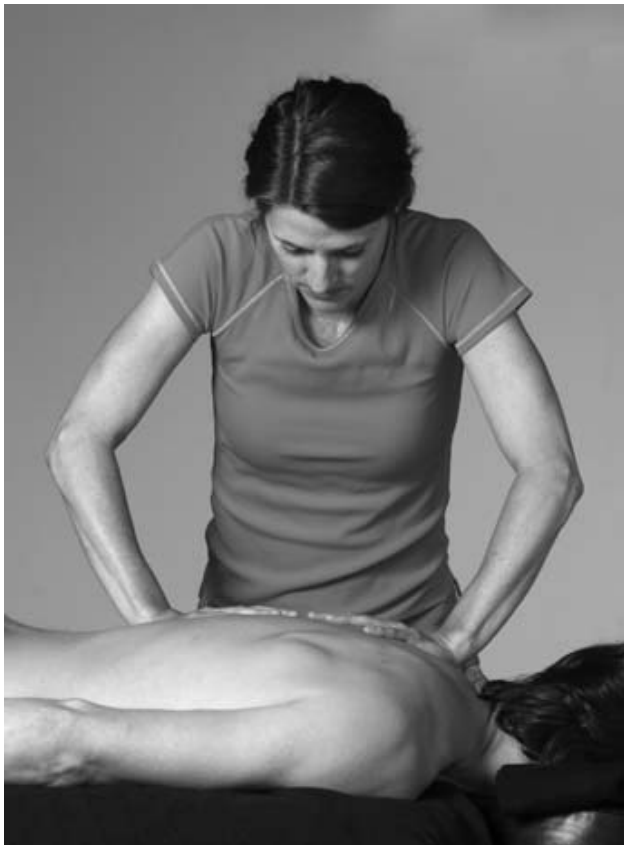
For Effective Injury Prevention, Think Holistically

By Lauriann Greene, CEAS and Richard W. Goggins, CPE, LMP

Massage is a physically demanding profession. Massage practitioners often use repetitive movements, hand force, static loading and awkward postures in their work, all recognized risk factors for developing musculoskeletal disorders (MSDs). The therapist's age, general health, previous injuries and other personal physical and emotional factors are additional risk factors. It is not surprising to learn that a 2006 study of massage therapists and bodyworkers showed that 77 percent had experienced pain or other musculoskeletal symptoms related to their massage work, and 41 percent were diagnosed with an MSD[1]. While in Australia, a recent survey among massage therapists found that there is a high number reported pain in the wrist and thumb (69%), neck (59%), shoulder (54%) and lower back (26%). The most troublesome is in wrist and pain with 42% indicating daily to weekly pain and affecting their work[2].

Before you start thinking about putting your treatment table up for sale, it's important to understand that injury is NOT inevitable. Many professions have inherent risks, and many people in these professions have successful, long-term, healthy careers. There is a great deal you can do to prevent injuries from occurring in the first place, and to minimize their effects if they do occur. The key to managing your risk of injury is to reduce your exposure to risk factors as much as possible. Taking the necessary steps to prevent injury is much easier and less disruptive to your career than dealing with an injury once it has occurred.



Fatigue may lead to poor postures, such as "wearing your shoulders as earrings."

Developing Your Multifaceted, Holistic Injury Prevention Strategy

Decades of research have shown that the most effective strategy for preventing MSDs is a holistic and multifaceted one, including five primary steps:

1. Maintaining awareness of the risk of injury in your

work

2. Understanding how risk factors cause injury

3. Reducing risk factors through ergonomics

4. Developing good body mechanics and work practices

5. Taking care of your general physical and emotional health, including physical conditioning.

Using the principles of ergonomics, you need to design your massage space to fit your body and the type of work you do. You can't use good mechanics in a poorly-designed workspace. You'll need enough space to move freely around your table to avoid static positioning and awkward postures. Your table needs to be adjustable so you can work comfortably and efficiently as you change techniques and clients (a power-adjustable table is ideal). Raise equipment to waist level so you can avoid bending to reach them or having to lift them in awkward postures. Design your work schedule so you have a consistent, manageable workload from day to day and week to week, to avoid any sudden increases in workload that could lead to injury.

Strive to develop "good" body mechanics, not "perfect" body mechanics. The idea is to continue to use your body in a natural and efficient way, while maintaining an approach that maximizes your strength and avoids overloading the most vulnerable parts of your body. Modify or eliminate any technique that causes you pain or discomfort; if it hurts, don't do it.

Take care of your general health. Maintaining good physical conditioning, getting enough sleep, eating well and avoiding unhealthy habits like smoking can have a direct effect on your ability to heal tissue damage before it progresses to the point of injury.

Sometimes, despite your best efforts to avoid injury, you may find yourself developing symptoms. Recognizing symptoms and getting early, appropriate treatment is the best way to minimize interruption to your work and get you back on the road to health as quickly as possible.

Learning to give your own physical and emotional needs the same care and consideration that you give to your clients is critical to preventing injury. Be good to yourself, and a long, healthy career will be within your grasp.

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Lauriann Greene, CEAS and Richard W. Goggins, CPE, LMP are co-authors of Save Your Hands! The Complete Guide to Injury Prevention and Ergonomics for Manual Therapists, 2nd Ed., the leading textbook on self-care worldwide since 1995. Save Your Hands! offers consulting and training services to help massage therapists prevent workplace injury, affordable continuing education courses, and the Certified Injury Prevention Instructor program. *Read also 6 questions to Lauriann on page 43.*

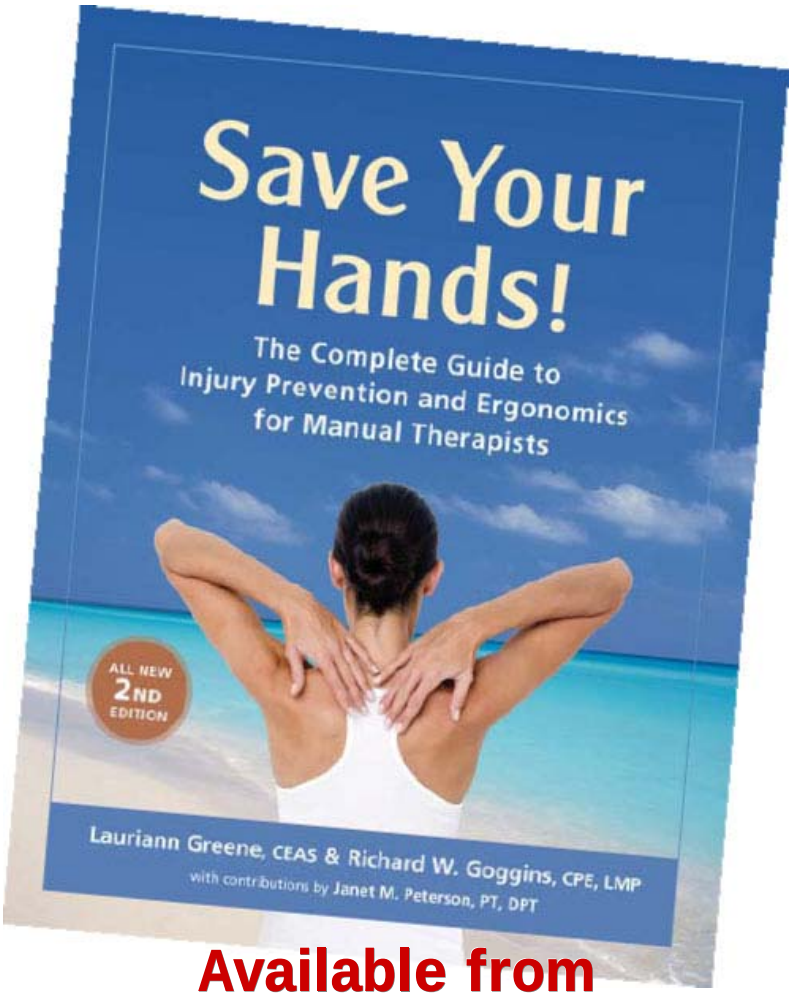
Arm yourself with the comprehensive information you need to

Save Your Hands!

The physically demanding work manual therapists do puts them at risk for musculoskeletal injury. But injury is not inevitable. Save Your Hands! 2nd Edition gives manual therapists the proven injury prevention and ergonomics strategies, real-life suggestions and practical tips they need to protect their health and prolong their careers. Whether you are a student or an experienced practitioner, this indispensable guide will help you save not only your hands, but also your back, neck, shoulders and emotional well-being throughout a long, healthy career.

In an accessible, richly-illustrated format, Save Your Hands! 2nd Edition shows you how to:

- Design your treatment space so you can work safely and efficiently
- Find alternative techniques to protect vulnerable parts of your body
- Improve your body mechanics to reduce stress and increase comfort as you work
- Stay in shape with a comprehensive physical conditioning program developed specifically for manual therapists
- Recognize early symptoms and address them effectively before they lead to injury
- Use the principles of ergonomics to more effectively treat your clients, adding value to your practice.



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Leading Experts & Educators All Agree: "Save Your Hands! Should be required reading for every manual therapist.

Journal of Associated Massage Therapists Ltd., Australia, June 2010
"This book is so good it actually reviews itself ... 'If this book does not help you prevent injuries as a manual therapist, nothing will.'... so says Steve Capellini, author and educator, who neatly sums up the merits of Save Your Hands! in a single statement. This book gets high marks for sheer comprehensiveness. You are bound to find a pearl of wisdom to suit your particular needs. Treats the therapist as a "whole" person and gives advice to span the entire career of the therapist."

Ergonomics Australia Journal, March 2010
"One of (the book's) strengths is that it offers value for the experienced OHS practitioner as well as an inexperienced member of the wider community. Ergonomists will appreciate the fact that it presents a holistic view of a person, task and environment ... something that is not always appreciated by either busy medical practitioners or business management. Their book is well written and edited and is a desirable addition on the bookshelf of any health related professional. It is a cogent textbook for the health professional and an easy read for anyone interested in understanding the problem."

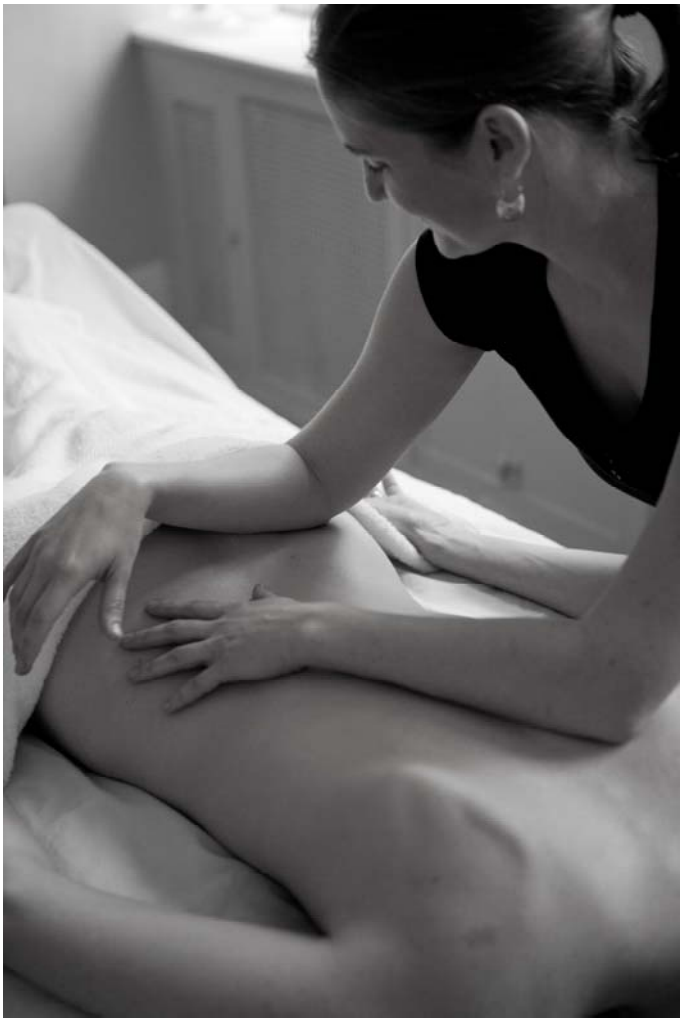
Leon Chaitow, ND, DO, Honorary Fellow, University of Westminster, London
Whether massaging, manipulating, mobilizing or palpating, the hands and their support systems are vital and precious, and yet, because of lack of awareness of ergonomics, poor posture and inappropriate use of the self, they all too often suffer wear and tear, overuse and misuse. The book provides clear descriptions, choices and methods. If the well-presented advice it contains is taken, that will allow practitioners and manual therapists to perform their work safely and effectively throughout their professional lives. Quite simply, the book is excellently conceived and constructed, and is very well presented, and I highly recommend it."

Steve Cappelini, LMT, author of Massage Therapy Career Guide, The Royal Treatment and Massage for Dummies
"If this book does not help you prevent injuries as a manual therapist, nothing will. I was especially gratified to see the new section on injury prevention in the spa setting. As one of the largest employers of manual therapists worldwide, the spa industry has unfortunately experienced many such injuries. If the advice in this volume were practiced industry-wide, it would save untold suffering, prolong thousands of careers and save spas a bundle in the bargain. Well done."

Auth Method of Forearm Massage: Massaging the Hips

By Shari Auth

I can't count the number of times I've had a massage in which the therapist kept my hips draped for the entire procedure, massaging my lower back down to my iliac crest and my hamstrings up the my sit bones but not so much as an effleurage on my hips. I would find myself disappointed and couldn't understand why this crucial area was skipped. Was it not part of their protocol or training, did they find it too personal or embarrassing, what? It was definitely the elephant in the room. Not massaging the hips is like getting a facial and skipping the nose. The hips are the biggest, most central part of the body and often a hotbed of tension and pain.



It is absolutely essential to massage the hips in every full-body massage unless the client requests otherwise. The muscles of the hips are some of the largest, strongest, and most abused muscles of the body. They are involved with sitting and walking and standing—in other words, unless you're sleeping or lying down you're probably engaging your hip muscles. I usually work the hips first, because tension there can contribute to tension in so many other areas of the body—namely the legs, back, and neck—and as the hips release, so do other areas. This is mainly due to their central location in the body; as the hips release it can create a ripple effect of release throughout the body.

To Pain Or Not To Pain

In my practice I often have had a client come in with lower back pain, and after I've massaged the muscles of the hips the pain is gone. Oftentimes, the hips carry tension that isn't apparent to the client. So, while the hips are a common place for clients to store tension, it is not necessarily the area where people feel the associated pain. There are various areas that people unconsciously clench when stressed, and the pelvis is chief among them. Sitting for long periods, such as working a desk job or flying, also creates tension in the hips that is not always consciously felt, but experienced more as a numb tension. For these reasons, a full-body massage should include the hips whether or not a client is complaining of pain in that area.

Slide down the hip, tracing the sacrum with your upper forearm. Start with a couple of superficial strokes, moving down the hip along the border of the sacrum.

However, many people do come in reporting pain the hips. Two common examples are sciatica, which is at epidemic proportions in America, and tailbone pain associated with a fall. Sciatica is often caused by a tight pirformis muscle clamping down on the sciatic nerve. If this is the case with your client, massage therapy can be effective in alleviating the pain. Likewise, falls can lead to a build-up of scar tissue in the hips, which can also be alleviated by massage therapy.

Auth Method of Forearm Massage

The Auth Method of Forearm Massage teaches an effortless technique for massaging the hips. Because the hips are some of the largest and strongest muscles in the body, they are no match for the massage therapist's comparatively smaller and more fragile thumbs, fingers, or hands. Big jobs require big tools. The forearms are perfect for working the vast terrain of the hips and the many layers of tension that can develop here. This is probably the most important area to work with the forearms. The tissue is the thickest here, and the bigger the tool, the better.

The Auth Method of Forearm Massage also teaches how to use good body mechanics while massaging the hips. There can be many layers of thick, tight tissue in the hips. When massaging the hips, as in massaging all parts of the body, it is essential to use body weight instead of muscular force to engage the tissue. If the table is low enough, you can simply lean your body weight into the tissue. In order to use your body weight, it's important to ground your body in a firm stance. You might hold the same position for some time as you wait for tight tissue to release, so it's best to be comfortable as well. The Auth Method teaches simple Qi Gong exercises for better body mechanics, and easy stances that provide the practitioner with the comfort and strength needed to perform forearm massage. (See The Auth Method Article in Terra Rosa e-magazine Issue 7, Feb 2001)

Forearm Hip Work

There are a couple of ways to work the hips. The top two-thirds can be worked in conjunction with the back (discussed below), undraping your client's hips to the top of coccyx. Or the hips can be worked in conjunction with the legs, undraping your client's entire hip and tucking the drape in at the lower back and opposite

"The hips are some of the largest and strongest muscles in the body—and big jobs require big tools."

inner thigh. I recommend doing both—working on the top of the hips before working the back, and working the lower hips to the sit bones before working the hamstrings.

To work the upper hips:

Position your client face-down. Undrape your client to their coccyx, tuck the drape in on their sides, so they feel secure. Effleurage the back and hips, spreading oil over the area. Stand facing your client at about the level of their lower back. Spread your feet wide apart and bend your knees. Place your forearm closest to your client's feet at the top of their hip just below the iliac crest and rest your other forearm gently on your client's back. Make sure your massage table is low enough and that you're standing far enough from the table so that you can lean onto your client's body, using your body weight instead of force to engage the muscles of the hips. Let your forearm sink into the tissue just below the iliac crest. Slide down the hip, tracing their sacrum with your upper forearm. (Images 1 & 2) Start with a couple of superficial strokes, moving down the hip along the border sacrum. Gradually shift more body weight onto your client's hips to sink deeper into the tissue. Work down the hip and at the end of the stroke, lift your forearm up and bring it to the inferior border of the iliac crest and begin the stroke again. In my experience, it feels better and is easier for clients to release when massage strokes on the hips move in the downward direction. Try it both ways with a partner and see for yourself.

Divide the back of the hips into 3 lanes. The first lane is along the border of the sacrum, the second is along the muscle bellies midway between the sacrum and the greater trochanter, and the third is along the posterior border of the greater trochanter. Use your forearm to work all three lanes. Trace the border of the sacrum all the way down to the coccyx. Return to your starting position and glide down the lateral hip, moving along the greater trochanter and finally, glide your forearm down the middle lane, working muscle belly.

When you come across an area that is tight, slow down and wait for a release. Likewise, if you find a muscle spasm, hold constant pressure and wait for the spasm to surrender. Encourage your client to breathe into any areas that are tight. Use their breathing as a helpful tool for deeper relaxation. Remember, massage isn't something we do to someone, it is something we do with them.

If the tissue is not responding, it might be because your pressure is too light and you need to drop more body weight onto the tissue. If the client is tensing up against your pressure, you are applying too much pressure and need to lighten up. The right amount of pressure is deep enough to contact the most superficial layer of tight tissue. Practice shifting more and less body weight onto your client's hip area; eventually you will find just the right amount of pressure. There are a lot of layers of tissue in the hips, so be patient, work layer by layer, beginning with the most superficial layer of tight tissue first. When working this way, your client will experience painless deep-tissue massage that is effective as well as enjoyable to receive.

Conclusion

Tension in the hips can contribute to tension and pain in other areas of the body, including the legs, back, and neck. Using your forearms and proper body mechanics makes working the large muscles of the hips effortless to give and painless to receive. Effectively working the hips will make you a popular massage therapist because your clients will feel great when they get off your table.

Shari Auth, L.Ac., LMT, NCBTMB is the creator of the Auth Method of Forearm Massage and the instructional massage DVD, Auth Method: A Guide to Using the Forearms. She is a licensed massage therapist and acupuncturist, and is also certified in the Rolf Method of Structural Integration. Ms Auth teaches continuing education workshops for massage therapists, has a full-time practice in the healing arts in New York City, and has been practicing since 1995. For DVD and workshop information, please visit authmethod.com. For information on her practice in NYC, please visit shariauth.com.

The Biomechanics of Lumbar Fascia

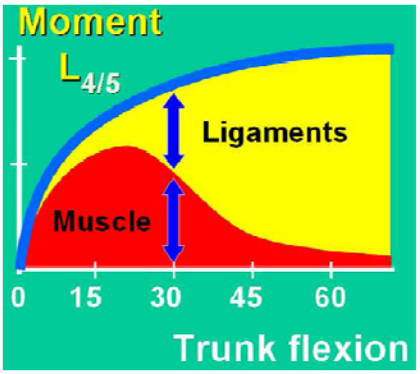
By Giovanni Chetta

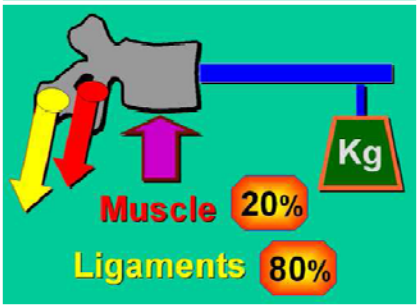
The thoracolumbar fascia has the essential biomechanical role of minimizing stress on the vertebral column and optimizing movement.

Taking a close look at the fascia will allow us to discredit several common beliefs based on interesting hypotheses, but which have never truly been demonstrated. Studies showed that intervertebral discs are rarely damaged by axial compression alone since the vertebral body is destroyed much sooner than the annulus fibrosus (Shirazi-Adl et al. 1984). The articular plate of the vertebral body breaks at an axial load (due to pure compression) of about 220 kg (Nachemson, 1970): the pressure on the nucleus of the intervertebral disc causes the end plate to fracture after the migration of the nuclear material to this area (Schmorl's nodules). Since the damage affects spongy bone, it is capable of healing in a short period of time. This is the case even though the vertebra breaks at about 1,200 kg (Hutton, 1982) and the annulus fibrosus suffers only a 10% deformation at an axial compression of at least 400 kg (Gracovetsky, 1988).

Therefore axial compression is not capable of creating annular fissures (and damaging the articular facets) unless in the case of a violent impact. On the other hand, compression associated with torsion has proven to be capable of damaging the fibres of the annulus fibrosus and the capsular ligaments of the articular facets, causing herniation in extreme cases. The damage affects the outer portions of the disc, and since it is ligament damage, it requires time to repair itself. A herniated disc is truly caused by shear forces associated with compression, except in rare cases (Shirazi-Adl et al. 1986). This leads to the belief that the intervertebral disc is not a sufficient system of weight transmission and absorption, but in reality an energy converter (Gracovetsky, 1986).

However, there is no doubt that the load of vertebral compression can reach 700 kg when lifting heavy weights (the force applied on L5-S1 while lifting a weight while in flexion at 45 degrees can be about 12 times greater than the weight itself).

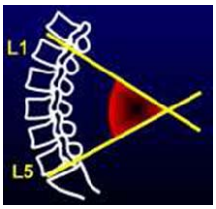




In the 1940s, it was believed that the back muscles is responsible for lifting. Bartelink proposed the idea, which is still commonly accepted today, that in order to lift a weight, the erector spinae muscles act on the spinous process of their associated vertebrae, assisted by intra-abdominal pressure (IAP), which pushes on the diaphragm (Bartelink, 1957). Since it has been proven that the maximum force that can be sustained by the erector spinae muscles is 50 kg (McNeill, 1979), a simple calculation demonstrates that according to this hypothesis, when lifting a load of 200 kg the intra-abdominal pressure should be about 15 times greater than the blood pressure (the maximum IAP value, calculated on a surface of 0.2 m^2 is 500 m Hg (Granhed et al., 1987). Bartelink's model gains meaning if the fascia is introduced into it. When lifting weight while bending the spine with a posterior pelvic tilt (or tensioning the fascia as best as possible), the spine erector muscles have little need to activate. The object is mainly lifted due to the action of the thigh extensor muscles on the hips (ischiocrural and gluteus maximus) and the fascia.

Studies showed that in Olympic athletes, the stress is divided into 80% fascia and 20% muscles (Gracovetsky, 1988). Therefore, collagen is performing a large portion of the work, since it acts as a cable and practically consumes no energy, and, thanks to its connections with the iliac crest-

spinous processes, it is almost situated outside of the body, with the advantage of being far from the fulcrum of the lever (the arm). This was a necessary evolutionary choice because in order for the erector spinae muscles to be capable of lifting over 50kg, they would have needed to increase their mass to the point that they would have occupied the entire abdominal cavity. Therefore, the additional forces (muscles and fascia) were placed outside of the abdominal cavity.



Hyperlordosis occurs when the angle formed by intersecting tangent lines at disc T12-L1 and L5-S1 is greater than 40 degrees (Gracovetsky, 1986).

The erector spinae muscles (multifidus) and intra-abdominal pressure, together with the psoas muscles, regulate lumbar lordosis from a three-dimensional perspective, thus assuming an important role as modulators of the transfer of force between the muscles and the fascia. Internal abdominal pressure does not put significant pressure on the diaphragm itself, but actually acts on lumbar lordosis and therefore the transmission of forces between the muscles and the fascia. Intraabdominal pressure flattens the fascia so that the transverse abdominal muscles (which make up the active part of the dorsolumbar fascia, since its free ends are attached to its fibres) exert a force of traction on the same plane as the fascia. When intra-abdominal pressure is low, this mechanism is disabled and all abdominal muscle action (the rectus abdominis in particular) causes the trunk to bend.

In other words, if the pressure of the internal abdominal muscles is high, the lumbar region goes into hyperlordosis, while if the pressure in the abdomen is low, the vertebral column can bend with pelvis tilted posteriorly, thus stretching the fascia (a posterior pelvic tilt before bending to lift an object is typical of people who lift weights without any problems). In this circumstance there is less opposition to the

systolic blood pressure and therefore the blood flows better to the extremities (somehow our muscular and skeletal system acts so that there is not excessive internal abdominal pressure in order to maintain peripheral blood circulation). Thus the fascia can provide its significant contribution when the vertebral column bends if abdominal tension is reduced (Gracovetsky, 1985).

In a lifting experiment of 530 N (about 52 kg) with two different lumbosacral angles (lordotic angles) of 20 and 50 degrees, it was shown that less stress on the muscles and ligaments is observed in total bending by reducing lordosis and by increasing it (greater lordosis) when upright. In the 30-50 degree range of bending, the difference in lordosis is irrelevant (the optimal condition of balance was observed at 30 degrees). A posterior pelvic tilt is advantageous at the start of lifting, while physiological lordosis is preferable when erect. If the weight must be held for a long period of time, it is preferable to bend the limbs and reduce lordosis. Therefore, there is no optimal universal lordosis, since lordosis depends on the bending angle and the weight being supported (Gracovetsky, 1988).

It is a good idea to teach the bending technique for heavy weight lifting, while it is not useful for lifting lighter weights. Also, this technique could create problems in the presence of intense myofascial contractions and/or retractions of the posterior chain (mainly the lumbar zone) due to the risk of "triggering" a myotatic reflex and a possible related muscular "block".

When carrying a backpack, changing the bending of the truck with each step creates an alternating role between the muscles and ligaments that could result in greater resistance (Gracovetsky, 1986).

Similarly, when carrying heavy bags with one or both hands a slight bending of the trunk with small oscillations during each step is more convenient than the traditionally recommended posture (which involves greater lumbar lordosis and a fixed trunk). These methods also take another significant characteristic of the connective tissue (its viscoelasticity) into account.

Viscoelasticity of the fascia

We have seen that lifting heavy weights with the deep fascia in tension is the safest way to carry out these types of movements. However, these movements must also be done quickly, because when doing these same movements slowly, it is possible to lift only one-fourth of the weight that can be lifted when moving quickly (Gracovetsky, 1988). This is due to the viscoelastic properties of the collagen fibers, which cause the fascia to elongate if kept stretched for longer periods of time; when elongated, the collagen fibers remain in their new state for a long period of time (Viidik, 1973).

Due to its viscoelasticity, the fascia deforms under stress in a short period of time, and therefore it is necessary to constantly alternate the structures that are subject to the stress. The amount of force needed to elongate the fascia even further depends on how much it has already been stretched, as greater forces will be required to elongate it further (the more elongated the fascia is, the more difficult it is to elongate it further), in a non-linear relationship (according to Kazarian's studies in 1968, collagen's response to the loads applied has at least two time constants: about 20 min. and about one-third of a second). The limit that should not be exceeded in order to avoid breaking the fibers of the fascia is two-thirds of the maximum elongation.

Posture and tensegrity

The search for universal solutions regarding posture is mistaken because it ignores the fundamental property of connective tissue: viscoelasticity. We are not statues. Postural stability is assured in the gravitational field by constant

movement, the alternating use of fascia and muscles, or in other words, their functional oscillation. The myofascial-skeletal system is a structure that is not stable; rather, it is in constant dynamic equilibrium. We are a redundant system, meaning that changing the internal distribution of weights does not necessarily entail postural modification; the control and efficiency of this system is essential first and foremost for the wellness of the vertebral column. As mentioned previously, the periosteum has a maximum concentration of stress sensors (interstitial receptors) that rapidly bring information (and not only regarding pain) to the brain. The dorsolumbar fascia is therefore more than an agent of transmission; without it we would not have

efficient control over our muscles. The “enemy” is the split of the fascia from the periosteum (which occurs by exceeding 2/3 of the maximum elongation); when the fascia is damaged, rehabilitation is very difficult, and results in an imbalance in functional biomechanics and coordination. In children the fascia is immature, because the ossification of the vertebrae is incomplete, and therefore nerve impulses are not transmitted efficiently. Consequently, children move similarly to people who suffer from back injuries caused by damage to the collagen (forced to increase muscular activity).

Function and structure

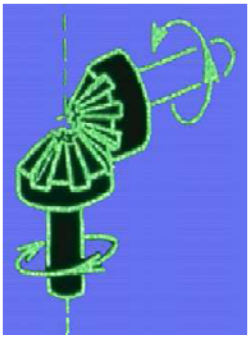
Function precedes and molds structure, and postural coordination is more important than structure.

It is no coincidence that man represents the ultimate cybernetic system: 97% of the motor fibres active in the spinal cord are involved in cybernetic processing activities and only 3% are used for intentional activities (Galzigna, 1976). Cybernetics is the science of feedback. The body must always know its environmental conditions in order to instantaneously and properly organize itself in order to carry out its necessary processes. Senses can never be separated from the motor function: the environment is constantly being sensed and assessed, highlighting the need for gravity, synesthesia, and proprioception. “Being and functioning are inseparable,” Morin (1987). Reflexes are the main road.

Human beings need to move for their own survival and state of wellbeing. This is why locomotion is the activity that takes precedence over all others. In the living world, specific human motion is of the utmost importance and represents the most complex natural process. The traditional idea that human beings distinguished themselves due to their intellectual qualities has been discarded and at this point it is well-known that these qualities originated with the acquisition of the morphomechanical achievement of bipedalism (the freedom of the hands is a consequence of this). The current human body is mainly the result of the need for ambulation with maximum efficiency on two feet in a stable gravitational field. In agreement with this theory, man must be able to move with a minimal consumption of energy within a constant gravitational field and while subjecting its various structures (muscles, bones, ligaments, tendons, etc.) to a minimal amount of stress during walking.

The engine of specific human motion

In 1970 Farfan was the first to propose the idea that movement advances from the pelvis to the upper extremities, or in other words, that movement starts from the iliac crest and proceeds to the upper extremities. In the 1980s Bogduk explained the anatomy of the soft tissues that surround the vertebral column, and in the 1990s, Vleeming clarified the association of the pelvis with the lower limbs. Finally, Gracovetsky (1988) demonstrated that the vertebral column is the primary engine of movement, “the spine engine”. This role of the backbone is still evident in our “ancestors”, fish and reptiles, but a man whose lower limbs have been completely amputated is capable of walking on the ischial tuberosities without significant alterations in movement, or in other words, without interfering in the primary movement of the pelvis. This essentially demonstrates two things:



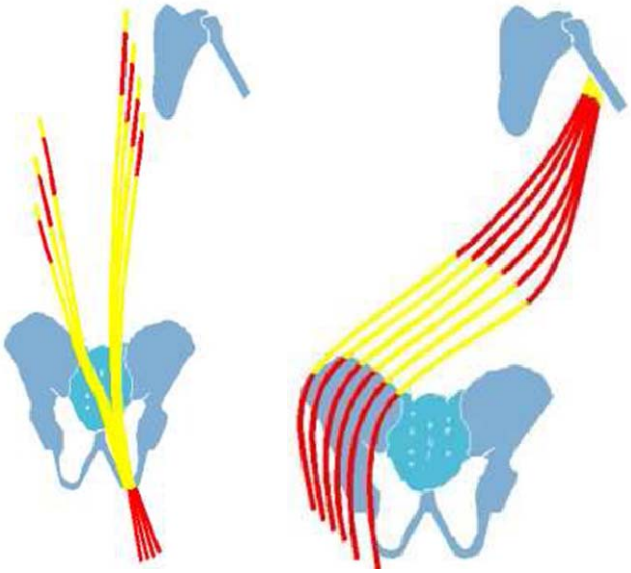
1) The intervertebral facets and discs do not prevent rotation, they favour it; the vertebrae were not built for static structural stability. In fact, lumbar lordosis together with lateral flexion induces torsion of the vertebral column mechanically through a mechanical "coupled motion".

2) The role of the lower limbs is secondary to that of the vertebral column. By themselves they are not capable of rotating the pelvis to allow movement, but can amplify movement. The lower limbs are a result of the evolutionary necessity of increasing the speed of our movement. The greater power required for this purpose could not have come from the muscles of the trunk, which would have had to develop to be impossibly large and cumbersome. Therefore, evolution prepared other muscles, positioning them outside of the trunk on the lower limbs for functional and spatial purposes. The first responsibility of the lower limbs is to provide energy that allows us to move at high speeds. Thanks to the lower limbs, intervertebral movements and rotations on the transverse plane in particular can harness the complementary contribution of the hip extensor muscles (gluteus maximus, biceps femoris, semitendinosus, and semimembranosus) to which the spine is connected through specific and substantial myofascial chains:

a) sacrotuberous ligament – longissimus lumborum muscle (located on the sides of the spinal column)

b) sacrotuberous ligament and iliocostalis thoracis (allowing the right ischiocrural muscles control some of the left thoracic muscles and vice versa)

c) gluteus maximus muscles – latissimus dorsi (which controls the movement of the upper limbs).



All of these ischiocrural-vertebral column connections form a pyramid that assures strong mechanical integrity for the upper and lower limbs. The fascia is necessary to transmit this complementary force for specific human motion from the lower limbs to the upper limbs. The energy rises along the lower limb and is "filtered" by them (the ankle, knee, and hip are critical steps in this process) to reach the vertebral column in the appropriate phase and amplitude. In this way the trunk can use this energy by rotating each vertebrae and the pelvis appropriately (Gracovetsky, 1987).

Nonetheless, the rotation of the pelvis around the vertical axis during walking by the muscles that exert a force of traction downwardly creates an efficiency problem.

This problem is resolved by using the gravitational field as a temporary warehouse in which the energy released by the lower limbs with every step is accumulated: during the rise of the center of gravity (phase of deceleration) kinetic energy is stored as potential energy and subsequently transformed back into kinetic energy to accelerate the body (the body is lifted using the kinetic energy acquired while falling).

The associated curves are therefore in phase opposition: the increase in potential energy occurs as the kinetic energy is consumed and vice versa. In standard deambulation (7 km/h), muscular activity is required only to maintain the ratio between the two forms of energy in accordance with the specificity of the process. In other words, the muscular factor is not required to deal with the periodic rise in the center of gravity, but to control the contribution of the environment by modulating the instantaneous relationship between potential and kinetic energy, containing it within the limits of the construction of specific motion. As this responsibility is delegated to the red skeletal muscle fibers (aerobic), they consume small amounts of energy (Cavagna, 1973): an individual weighing 70kg walking on flat ground for 4km spends an amount of energy covered by consuming 35g of sugar (Margaria, 1975). For this reason, man is a tireless walker, differently from quadrupeds, whose motion requires a greater expenditure of internal energy (Basmajian, 1971).

Thanks to the myofascial system, specific human motion occurs with maximum efficiency in the gravitational field. Therefore, our initial hypothesis appears to have been demonstrated.

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Research Highlights

Massage therapy eases lower back pain

Massage therapy helps ease chronic low back pain and improve function, according to a randomized controlled trial that the Annals of Internal Medicine published in July 2011. The first study to compare structural and relaxation (Swedish) massage, the trial found that both types of massage worked well, with few side effects.

"We found that massage helps people with back pain to function even after six months," said trial leader Daniel C. Cherkin, PhD, a senior investigator at Group Health Research Institute. Better function means they are more able to work, take care of themselves, and be active.

The trial enrolled 400 Group Health Cooperative patients who had had low back pain for at least three months. Their pain was "nonspecific," meaning with no identified cause. They were randomly assigned to one of three treatments: structural massage, relaxation massage, or usual care. Usual care was what they would have received anyway, most often medications. The hour-long massage treatments were given weekly for 10 weeks.

At 10 weeks, more than one in three patients who received either type of massage—but only one in 25 patients who got usual care—said their back pain was much better or gone. Also at 10 weeks, a questionnaire showed nearly twice as many massage patients (around two thirds) as usual-care patients (more than one third) were functioning significantly better than at the trial's outset. Patients in the massage groups spent fewer days in bed, were more active, and used less anti-inflammatory medication than did those with usual care. "As expected with most treatments, the benefits of massage declined over time," Dr. Cherkin said. "But at six months after the trial started, both types of massage were still associated with improved function." After one year, the benefits of massage were no longer significant.

Gua Sha reducing chronic neck pain

Researchers in Germany conducted a first-of-its-kind randomized, controlled trial of the traditional East Asian healing technique Gua sha in patients with chronic neck pain. Writing in the journal Pain Medicine, researchers report enrolling 48 outpatients with chronic, painful restriction of cervical spine mobility. At the start of the study subjects were randomly assigned to either Gua sha applied to the upper back and entire neck (30 subjects) or to a control treatment with local application of a thermal-heat pad (24 subjects). The single-treatment session lasted up to 30 minutes and subjects were then followed for 7 days post-therapy.

Neck pain severity after 1 week significantly improved in the Gua sha group compared with the control subjects group. Significantly favourable treatment effects were also found with Gua sha for pain at motion, scores on the NDI, and dimensions of quality-of-life . The use of adjunctive oral analgesics was comparable but rare in both groups during the one-week observation period. No serious adverse events were reported and minor adverse effects included slight muscle aches or soreness in the area of treatment in both groups.

Treating chronic lower back pain can reverse brain abnormality

It likely comes as no surprise that low back pain is the most common form of chronic pain among adults. Lesser known is the fact that those with chronic pain also experience cognitive impairments and reduced gray matter in parts of the brain associated with pain processing and the emotional components of pain, like depression and anxiety.

In a longitudinal study published in the Journal of Neuroscience, a group of pain researchers from McGill University found that if you can alleviate chronic low back pain, you can reverse these changes in the brain.

The team began by recruiting patients who have had low back pain for more than six months and who planned on undergoing treatment — either spinal injections or spinal surgery — to alleviate their pain. MRI scans were conducted on each subject before and six months after their procedures. The scans measured the cortical thickness of the brain and brain activity when the subjects where asked to perform a simple cognitive task.

Not only did the team observe recovery in the anatomical function of the brain, but also in its ability to function. After the subjects were treated, researchers found increased cortical thickness in specific areas of the brain that were related to both pain reduction and physical disability. And the abnormal brain activity observed initially during an attention-demanding cognitive task was found to have normalized after treatment.

While more research would be needed to confirm whether chronic pain actually causes these changes in the brain, the main author hypothesizes that chronic low back pain, at the very least, maintains these differences. "If you can make the pain go away with effective treatment," she added, "you can reverse these abnormal changes in the brain."

6 Questions to Tom Ockler, PT

1. When and how did you decide to become a bodyworker?

I guess it was a few years after I graduated from PT school. I was unhappy with what they taught and the outcomes I was getting. I also had the misfortune of possibly causing one of my patients a spondylolisthesis (broken back bone) while doing a manipulation. That was way back in 1982 and I have not done a manipulation since. So, I needed to come up with a safer more effective way to treat patients that actually addressed the cause of the problem and cured them. That's when my search lead me to such wonderful techniques as Muscle Energy Technique and Counterstrain.

2. What do you find most exciting about bodywork therapy?

I think the best part of this type of work is the dramatic changes that happen, even with the most complicated patients. My practice is one that sees the worst of the worst cases; those that our less-than-perfect medical system has given up on. Using these techniques makes such a huge difference and they are completely safe. No chance of doing any damage. In the USA, the health care system is really a sick care system with virtually no prevention. The system is so overloaded that practitioners can't spend much time and the methods used to treat complicated patients are the same as the simple ones. It's like a conveyor belt and if the simple techniques don't work, then you are out of luck. The Muscle Energy Techniques, once mastered, can transform these patients in very short order.

3. What is your most favourite bodywork book?

Besides my own manuals M1-M2-M3-M4 I really like Positional Release Therapy by D'Ambrogio and Roth. I use it a great deal.

4. What is the most challenging part of your work?

I guess the chronic nature of most of my patients is a challenge but again, with these techniques its much easier.
Getting patients to do their follow up stabilization is always a chore.

5. What advise you can give to fresh massage therapists who wish to make a career out of it?

Save your hands, they are your tools and cannot be replaced. Use elbows, styloid process, pisiform, any bony prominence you can and always remember to stretch your fingers, wrists and forearms regularly.

Stay away from sugars and processed foods. They are depleted of nutrients, enzymes and minerals and your body can't repair itself well. They also lead to inflammation in your body. Inflammation has a host of domino effects on your body that will shorten your career.

6. How do you see the future of bodywork and massage therapy?

I cannot speak for the future of the profession in Australia, as you have a national health care system. However, in the United States, people are really looking at alternative and complimentary adjuncts to health care and massage research is showing a tremendous benefit to overall health, vitality and longevity. I would think the Australians have learned this already so you have a bright future ahead of you.

6 Questions to Lauriann Greene

1. When and how did you decide to become a bodyworker?

I had problems with back pain for quite a while, and I found that massage was the most helpful treatment for me. When I decided to change careers in 1992 (I had worked in the music industry for years), I felt I wanted to help people through massage as I had been helped by several very talented therapists for my back pain. I went through an 1100 hour program at Seattle Massage School to become a Licensed Massage Practitioner (LMP).

2. What do you find most exciting about bodywork therapy?

I'm continuously amazed by the power of touch. An experienced, skilled massage therapist or bodyworker can have a profound effect on the client's physical and emotional health. It's wonderful how massage combines science and art, intellect and intuition, knowledge and creativity. There are so many different ways to treat any one condition, it's truly up to the experience, skill and creativity of the therapist to find the treatment that works for the client and is also comfortable for that therapist to deliver..

3. What is your favourite bodywork book?

Besides our own book, Save Your Hands! 2nd Edition ☺ I'd have to say Trail Guide to the Body by Andrew Biel, and not just because I was the Associate Editor for the book. Palpation is so important for manual therapists, and Trail Guide is THE essential guide to learning palpation.

4. What is the most challenging part of your work?

Getting therapists to understand how essential it is for them to actively implement a multifaceted injury prevention strategy in their work. It's so much easier to prevent injury than it is to treat it once it happens, and yet many therapists don't get interested in self-care and injury prevention until they're already having symptoms. Ideally, all therapists would learn effective injury prevention at school, so they learn good habits from the beginning. Schools tend to teach body mechanics, but body mechanics by itself has not been shown to prevent injury. There are many factors that contribute to causing injury, so it takes a combination of different tactics to keep the therapist healthy.

5. What advise you can give to fresh massage therapists who wish to make a career out of it?

Take care of yourselves! One of the principal reasons therapists leave the profession is injury or ongoing symptoms. The rate of injury among massage therapists and bodyworkers is very high. Proven methods exist to prevent injury, and it's possible to heal and get back to work quickly if you recognize the first symptoms and treat them early and effectively. You need to find a balance between client care and self-care. You can't help others if you hurt yourself - you deserve as much consideration as your clients do.

6. How do you see the future of bodywork & massage therapy?

I think we're just starting to understand how important massage and bodywork are to health and well-being. I think we'll see these therapies become an essential, basic part of preventive medicine in the years to come. I'm involved in efforts to raise teaching standards in the profession, and I think we'll see massage and bodywork instructors who are more highly trained and therefore even more effective. I'm also doing all I can to make sure that self-care, injury prevention and ergonomics are taught at every school by instructors who have been trained to teach evidence-based information in this very important subject.