Methods For Correcting Upper Quarter Strain Patterns

Muscular imbalance, biomechanical strain and attitudinal rigidity all interfere with effective bodywork. This article offers solutions that can energize your practice and prolong your career.

BY ROBERT K. KING
Some 30 years ago, I entered the massage therapy field with an athletic background in competitive weightlifting and amateur boxing. I thought my experience in these two sports would provide me with the necessary strength, power and upper body development to ensure a pain-free career. Was I wrong? Within six months of full-time practice, I developed thumb tendinitis, rotator cuff strain and persistent upper back spasms. I found it baffling and ironic that my clients could feel so much better, while I was experiencing relentless myofascial strain and pain. What went wrong? Like many new massage therapists entering the field, my kinesiological knowledge and awareness were lacking, especially in reference to my massage therapy delivery system. While I had good reflexes and exceptional strength, I was unprepared for the unique functional demands of massage therapy. Individual business owners, school directors, continuing education presenters and the individual massage therapist all need to take responsibility for improving this situation. It begins with education, awareness and personal responsibility.

The entire hands-on portion of my advanced seminars is sometimes spent helpng massage therapists unload their upper body musculature from kinetic strain, cervical cranial hyperlordosis and excessive tension at the shoulders. A leverage-based lunge coming from their legs can be sometimes a brand new experience for therapists. Many are habituated in using the arms and shoulders for leverage and depth, but working hard does not translate into working deep. Apparently this is one of our profession’s closely guarded secrets.

Clinical success and longevity within a massage therapy career depend on several factors:

• A solid anatomical foundation;
• Developed palpatory skills;
• Clinical reasoning skills;
• An efficient, pain-free delivery system.

Achieving this efficient pain-free delivery system is a challenging and creative process. By correcting these stressful movement patterns in the upper back and shoulder muscles, we can positively impact therapeutic outcomes, personal self-care and our longevity in the profession. It sounds easy enough, but where to begin? There are yoga, tai chi, Pilates, the Alexander Technique, martial arts, McKenzie exercises, grounding, centering, focusing, meditation, massage and many other methods that probably work. As useful as these methods probably are, I would like to propose some programs and effective wellness strategies that you can begin practicing today.

I. Attitudinal Change May Be The First Step

The process of warming muscles, exploring tissue, applying specific hand, thumb, knuckle or elbow techniques, blending and combining strokes, and tapering off involves a delivery system that ought to reflect principles of optimal functioning. The quality of touch ought to mirror the resolution of myofascial pain. The application of our techniques ought to avoid the very conditions that so commonly undermine our clients’ health: repetitive strain, dysfunctional biomechanics, muscle imbalance and injurious movement compensations. In other words, we can’t expect our clients’ restricted muscles and fascia to relax if we are straining and provoking tissue with exertional upper body force. Instead, we seek congruence between client outcomes and the body mechanics of our delivery system.

Have you ever been on the receiving end of a massage session that was applied with upper body strain, rigid poking fingers, and a muscular effort that was clearly stressful and fatiguing for the massage therapist? This is not a satisfying therapeutic experience! Clients initiate reactive clenching, a withdrawal reflex and breath holding when overwhelmed by indiscriminate pressure. Bruising of tissue then occurs when a rigid sequence of techniques is employed with little regard for the client’s ability to accommodate the style or the pressure of a bodywork sequence. Rattling stress becomes the response of the bodyworker and the client on both a physical and an attitudinal level.

Lacking mindfulness, indiscriminate techniques might best be described as “bodywork fascism.” They demonstrate allegiance to the “system” or “formula” regardless of the individual needs of the client. Unfortunately, the client now becomes a means to the end of “following the routine.” When I have had the misfortune of receiving this type of bodywork fundamentalism, it is often from well-meaning therapists who have recently taken a continuing education workshop, usually in deep tissue, neuromuscular or one of the Asian therapies. Stressful, rigid fingers and hands insist upon the “right technique,” with little regard to warming tissue or the principles of progression for engaging myofascial layers. Sometimes the agenda-driven therapist will assume you don’t like or can’t take the deep tissue or specific work they are so invested in. The reality is that...
The Psychology Of Strain And Effort

- Techniques are delivered with strength and muscular effort.
- Upper body focused—my arm as a battering ram.
- Fragmented stressful movements fighting against gravity.
- Hand positions and techniques that strain neck and shoulder muscles.
- A “no pain, no gain” philosophy generating ongoing strain.
- I relieve client discomfort by increasing personal effort.
- Rigid allegiance to a conceptual formula: Bodywork Fascism.
- Limited endurance leading to energetic functional exhaustion.
- Intense focus on parts that need treatment… “work it out.”
- Straining to overcome tissue resistance.

Principles Of Elegant Bodywork

- Techniques are integrated with a sense of openness and ease.
- My pelvis, legs and feet are the source of grounding and power.
- My body movements reflect working with gravity.
- My body assumes lower quarter stability prior to specific hand techniques.
- A coordinated bodywork dance based on mutually experienced levels of comfort.
- Somatic awareness and conscious breathing.
- Willingness to explore and wander around; palpatory literacy.
- Energized and intuitive bodywork.
- Focus on whole body patterns and segmental relationships.
- An elegant delivery system based on leaning, leverage and lunging for optimal impact.

Nobody wants to be pressed, poked or prodded with a rigid, unyielding hand, overly flexed arms, elevated shoulders, facial grimacing and the occasional grunt from overworking the upper body musculature.

The charts at left outline contrasting philosophies and belief systems that profoundly impact our style of bodywork. The first list portrays the stressful beliefs and psychological disposition lurking behind functional strain patterns. What we find here is a “hardening of the categories.” This mindset is “working deep equals working hard equals upper body strain equals overall personal exhaustion.” And somehow, this helps the client get better?

When fingers, hands, arms and shoulders are the major power source for tissue engagement, it compromises functional integrity, often leading to the classic cumulative trauma disorder. Perhaps even more distressing is that it is nonreflective and nonresponsive to legitimate client needs. I wonder if we all haven’t gone through this stage at one time or another in our careers—where determination overcomes discretion. We want to follow an effective therapeutic protocol, but it becomes one-sided and one-dimensional. Fortunately, we are able to step back and realize that healing does not occur in a formula.

Let’s reflect on the chart “Principles Of Elegant Bodywork” (directly left). Are these just poetic words suggesting flow, energetics and some sort of tableside dance? I think legions of wounded bodyworkers can attest that the old paradigm is not working. A vital and multidimensional paradigm is not working.

The second upper quarter strain pattern is the frequency of shoulder protraction as opposed to retraction. Serratus anterior and pectoralis minor are often overworked, especially with techniques that involve static holding or reaching across the table on a repetitive basis. While the entire trapezius muscle assist in retraction, the middle fibers, because of their line of pull, are ideally suited for this task. The middle trapezius, along with the rhomboids—which also retract the scapula—are commonly painful, fibrosed and adaptively weakened by the frequency of protraction-based techniques.

The third and most significant overuse pattern in the practicing therapist is the frequency of shoulder depression as opposed to elevation. Hypertonicity in the upper trapezius and levator scapula is a common problem for many practitioners. The lower trapezius, which functions as a scapular depressor, is often functionally inhibited.

Il. Classic Muscular Imbalances In The Upper Quarter

Moving into the biomechanical realm, we find that stressful, fragmented bodywork usually involves a classic strain pattern between three upper body muscle groups. (See the illustrations at right, and on page 76.) This pattern is sometimes referred to as the upper crossed syndrome, showing a crosscrossed pattern of myofascial imbalance between key postural and phasic muscles.

The first imbalance is between the shoulder elevators and depressors. This is an easy one. Scapular elevation is a common characteristic of deep pressure. Manual therapists all too often experience a tight burning ache in the upper trapezius and levator scapula from a table that is too high or from using the arms and shoulders as the primary power source. In fact, elevation at the scapulocostal joint is probably the most significant overuse pattern in the practicing therapist.

Conversely, the lower trapezius as one of the scapular depressors becomes functionally weak and inhibited.

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The third shoulder imbalance in the massage therapist is excessive medial rotation of the humerus. Static, cross-armed compressions are probably the most common offenders seen in clinical settings. Medial rotation overuse stresses the subscapularis, pectoralis major, anterior deltoid, the teres major and even certain fibers of latissimus dorsi. Weakened lateral rotators of the shoulder include teres

1. Scapular Elevators And Depressors

2. Scapular Protractors And Retractors
III. The Need For Self-Care Strategies

Our approach to self-care and optimal performance needs to be reflective, corrective and strategic. We need to become aware of our own symptoms of tension and strain. Commit to an ongoing program with specific clinical outcomes.


IV. Self-Stabilization Techniques

The Brugger Relief Position is a basic, very important self-stabilization technique. It reduces kyphotic strain, forward head posture and the chronic medial rotation of the humerus so prevalent among manual therapists. It provides proprioceptive input for postural correction. It is ideal, not only for bodyworkers, but for office workers who fall into chin poking, “banana back” postures. Follow the instructions carefully and you will notice an overall postural improvement within a few weeks of practice.

The second self-stabilization technique for correcting upper quarter imbalance and strain is known as Wall Angels. This exercise targets the three functionally strained muscle groups—the scapular depressors, retractors and the lateral rotators of the humerus. Slow, conscious control of the exercise is an ideal one-minute self-stabilization technique between clients. It helps to restore the scapular stabilizers and gently stretches the pectorals. It synchronizes nicely with the Brugger Relief Position by allowing for improved intercostal expansion during inspiration.

The third and most advanced of our stabilization techniques is the Power Band Pulldown. An exercise band, sometimes called power bands or therabands, surgical tubing or any rubber-based exercise product will do. By slowly and consciously initiating a “down and out” movement pulling the hand down to the base of the skull, you stimulate external rotation, retraction and scapular depression. Cocontraction of these muscle groups reciprocally inhibits their hyper tonic antagonists. This movement closely resembles the biangular lat machine often seen in health clubs. I realize there are differing biomechanical opinions regarding pulldowns behind the head, but I think you will find this exercise both safe and effective when performed carefully.

Please don’t practice any movements that hurt or require strength beyond your current fitness level.

When performed on a regular basis—up to 100 per day or 20 repetitions between each client—you will notice significant improvement in upper quarter balance and equilibrium.

The external rotators and retractors, especially the rhomboids, show improved functional competency within a few days. As you progress and grow stronger, you may wish to purchase more challenging bands to maximize your clinical outcomes.

V. Efficiency And Elegance

When movement becomes a skill, a science and an art form, the practitioner has a better chance of avoiding injury, maximizing minor, infraspinatus and the posterior deltoid. We begin to notice our bodyweight increasing and our posture hanging in medial rotation long after our last client of the day.

With increasing frequency, body therapists are finding that these three strain patterns interfere with functional efficiency and produce a gripping ache in the arms, neck and shoulders. This can be enormously discouraging, and not just for the new massage therapist. It also sets the pathological and mechanical stage for rotator cuff injury, thoracic outlet syndromes, cervical disk compression and overuse tendon injuries at the elbow and wrist. I often meet massage therapists at workshops who attend not so much to learn new approaches for their clients, but to help themselves eliminate myofascial pain, functional strain and overuse injuries in their own bodies. Healing begins on the home front.

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3. Externally rotate and retract your arms and shoulders to the starting position pictured above.

4. Inhale and then pull the band “down and out” to the base of the skull as you tuck your chin, but avoid protracting your neck forward. Visualization of the muscles being activated will positively impact your outcomes. Be sure to move slowly, perform each repetition slowly. Consciously practice shoulder external rotation, retractions to keep your elbows and wrists close to the wall. Move to the motion barrier. As you exhale, lower your elbows toward the sides of the waistline. Use muscular contractions to keep your elbows and wrists close to the wall. Move to the motion barrier. Pause and repeat.

This movement reinforces retraction of the shoulder and neck muscles, stretching the pectorals and the upper trapezius and activating the scapular stabilizers. Practice the movement slowly and consciously, performing up to 25 repetitions several times per day.

Exercise 2. Wall Angels

This exercise is similar to Wall Angels, but with added resistance. Be certain that your wrists and hands have the power band secured in a firm grip. Remember to tuck your chin, but avoid protracting your neck forward. Visualization of the muscles being activated will positively impact your outcomes. Be sure to move slowly, both in the concentric and eccentric phases of the exercise.

1. Stand six to eight inches from the wall. Tuck your chin and rotate your pelvis back against the wall. Keep the knees slightly bent.
2. Stand with your elbows raised to shoulder level and your wrists directly above the elbows, fingers extended.
3. Inhale. Raise your elbows and wrists upward trying to maintain contact with the wall. As you exhale, lower your elbows toward the sides of the waistline. Use muscular contractions to keep your elbows and wrists close to the wall. Move to the motion barrier. Pause and repeat.
4. Perform each repetition slowly. Consciously practice shoulder external rotation, retraction and depression to help stabilize upper quarter structures.

Exercise 3. Power Band Pulldowns

This exercise is similar to Wall Angels, but with added resistance. Be certain that your wrists and hands have the power band secured in a firm grip. Remember to tuck your chin, but avoid protracting your neck forward. Visualization of the muscles being activated will positively impact your outcomes. Be sure to move slowly, both in the concentric and eccentric phases of the exercise.

1. Stand or sit comfortably maintaining stable alignment.
2. Grasp the band firmly with both hands.
3. Externally rotate and retract your arms and shoulders to the starting position pictured above.
4. Inhale and then pull the band “down and out” to the base of the skull as you exhale. Slowly return to the starting position and repeat.
5. Be sure to activate the shoulder retractors to initiate the movement. Try using a mirror to be certain that your form is optimal.

Performing up to 15 repetitions between clients will powerfully reset your shoulder and upper back musculature.