



RED BARN PT NEWS

Serving the Upper Valley medical and fitness community with a physical therapy perspective on events and news in our area, significant developments in the PT field, summaries of interesting articles from the current literature, and--of course--what's new at Red Barn PT.

We've Moved!

RBPT's new home at 52 Olcott Drive, Wilder, occupies the top floor of the former CCV building. Completely renovated, it includes a new addition (on right in the photo) with entrance foyer, reception lounge, and full-sized elevator. Most of the ground floor will be occupied by HARP, a new multi-district school program managed by the Hartford School District.



The new space is a pleasure to work in and visit. We have ample and convenient parking space. Although we are still pushing some dirt to improve the landscape, the building is now fully operational. We have doubled our working space, and offer four treatment rooms, a spacious staff room, a conference room, and a 1200 SF gym with lots of new equipment, among these an elliptical trainer, a rebounder, and a wall pulley system. Downstairs, we will shortly complete a 450 SF studio that will be used for exercise and Pilates class.

in a near 90/90 position with springs attached to uprights. In this position, she could concentrate on breathing, surrendering the weight of her legs to the springs, while engaging and stabilizing with her deep abdominals.

Slowly, over several sessions, S began gently moving her hip in the supported position in springs. She gained confidence in her pain free range of motion and she could recognize and decrease splinting in her hip muscles. During this early phase of rehab, the focus was on supporting her hip and improving her core stability.

Over the weeks, as S's hip range of motions and strength increased, we moved to closed chain strengthening supine, then to hands and knees, kneeling and standing, all using the Pilates Reformer, Trapeze Table and Combination Chair. At each stage of rehab, the challenge to her trunk stabilizers increased as the dynamic nature of the movement increased. Early work on hip dissociation and core stabilization served to help this patient build safe and healthy movement strategies.

At home, S rode her stationary bike and performed mat and ball exercises to improving balance, proprioception and strength, supporting the work we were doing in our sessions.

Five months after her surgery, and nearly 2 years since having a pain free hip, S was golfing again and having no limitations in her ADL's. Her rehabilitation was sequential, systematic and Pilates-based. It addressed not only her strength and range of motion deficits, but her overall movement strategies and her core control.

References:

Anderson, Brent D., PT, OCS and Spector, Aaron, MSPT. "Introduction to Pilates Based Rehabilitation." Orthopaedic Physical Therapy Clinics of North America. 9:3 September 2000. 1059.



Pilates at Red Barn

Betsy Ogden PT, began working with us as a staff physical therapist early this summer. In addition, she is the owner of Upper Valley Pilates LLC. She will start teaching Pilates classes at Red Barn in the Fall. She will be offering an introductory and intermediate Pilates Mat class, a therapeutic Pilates class (with a reduced

number of participants for a one-on-one approach), and a modified Pilates-based exercise class for people with osteoporosis. Information and registration are through Red Barn Physical Therapy.

In-House News

Kim Likosky has registered and is preparing for the challenging Orthopaedics Specialty Certification Exam. To register for a specialty certification, the American Board of Physical Therapy Specialties requests a minimum of 2000 hours of direct patient care in the specialty field. Kim is looking forward to obtain this mark of professional distinction.

Betsy Ogden will be attending a three day course on Women's Incontinence and Pelvic Floor Dysfunction in Kansas, November 2005.

Also in November, Elizabeth Deneen will escape to Europe for the 15th Annual Meeting of the International Association for Dance Medicine and Research which takes place in Stockholm, Sweden.

Julie Bingell, our billing specialist has started her own billing agency J. B. Professional Services in Bradford, VT. She continues to process all Red Barn Physical Therapy insurance claims and payments.

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Why such big smiles? Because after more than a half-year of planning and anticipation, we're done! The move went smoothly, and we were able to resume patient care at the new location without a single hour's disruption to patient scheduling. From left: Liz Blum, Sandra Beaumier, Elizabeth Deneen, Kim Likosky and Betsy Ogden outside our new facility. (Not shown: Priscilla Downey, Grace Walthour, and Julie Bingell)



McKenzie Myths

by Kim Likosky

My first job was in a spine clinic that utilized the McKenzie method of assessing and treating spine-related pain. This experience greatly influenced my course as a physical therapist. Since then, I completed the McKenzie Institute's credentialing process that includes coursework and a comprehensive exam. Mechanical Diagnosis and Therapy (MDT), aka McKenzie, utilizes symptom behavior and objective changes in response to repetitive and static loading to determine the course of treatment. As with many approaches in our profession, there are several misunderstandings and myths floating around that result in confusion amongst health care providers and our clients. Here I have selected three "myths" and provided my own insights and thoughts.

Myth #1: McKenzie Equals Extension

Probably the most recognized aspect of the McKenzie approach is the press-up, or prone back extension. It is true that many people are able to treat their back pain with extension loading, but there is so much more to MDT than repeated extension. Patient presentation can be complex; therefore the resulting treatment can involve a variety of movements; including flexion, extension, lateral forces, or a combination of these. During the process of evaluation, flexion is actually the first repeated movement tested and the motion that is able to provide the most information regarding a person's condition. Often I work with individuals that benefit from a range of movements in order to fully resolve their complaints.

Myth #2: The Disc is the Source of All Our Problems

Robin McKenzie, a physical therapist from New Zealand, has historically used the disc model to suggest what structure may be responsible for the symptomatic response to repeated movements we often see in the clinic. Although this is only a theory, we are beginning to see growing support for this theory in the literature. Treating spine-related pain can be difficult and recently research has emphasized developing methods to identify pain-generating structures. Discography and injections can be very useful in this area. However, MDT allows us to evaluate and treat our clients even if we are unable to identify the anatomical structure that is causing our patients' symptoms. At times it is difficult to answer when a patient asks me "What's causing my pain?" because we clinicians often are not certain, even with modern diagnostic studies. But utilizing MDT allows us to successfully help our clients resolve their complaints and return them to full function, regardless of the specific structure involved- whether it is a disc, facet joint, muscle spasm, or nerve root.

Myth #3: Don't Touch the Patient!

MDT strongly emphasizes self-treatment and patient education, which allows patients to play a vital role in their recovery. This lends itself to promoting independence in symptom management, but that does not mean I avoid manual assistance or techniques. I will guide someone through a progression of forces that begins with patient-generated forces, but then often evolves to therapist-generated forces that can include overpressure, manual cues, and mobilizations. The importance of self-treatment cannot be overemphasized because it gives patients the key to understanding and taking responsibility for their own progress. However, I strongly believe manual skills and the power of touch are crucial in an individual's recovery. In my experience I find manual skills to be very useful as part of progressing an individual's treatment.

There are many useful tools in treating individuals with spine-related pain, and the McKenzie method is only one of them. When patients are assessed well and appropriately, I've found it to be effective in quickly determining which individuals will respond to mechanical therapy and those that will not. In a future issue of our newsletter, I plan to provide a case study to illustrate the use of MDT in assessing and treating spine-related pain.

Pilates in the Rehab Environment

by Betsy Ogden

Not long ago, the name Pilates was synonymous with an elite and intimidating exercise program which is the domain of dancers and athletes only. Today, the method has found its way into the rehab mainstream as an efficient means of building postural awareness and strengthening the spine and the abdominal muscles—the "core", in Pilates' lingo.

As a certified Pilate's instructor and physical therapist, I have worked successfully with many, many clients and patients over the last three years and probably only a handful would be considered an elite athletes. Pilates, taught by a skilled practitioner, is accessible to all those wishing to improve their physical wellbeing, whether recovering from injury, rehabilitating from acute or chronic musculoskeletal problems, or simply wishing to improve fitness levels.

Pilates' rise to popularity in the last 10 years has been the outgrowth of the original work of Joseph Pilates, nearly 100 years in the making.

Joseph Pilates was born in Germany in 1880. He suffered from a number of illnesses as a child which rendered him muscularly weak. Determined to overcome this, Joe dedicated his life to physical fitness, studying yoga, martial arts, Zen

meditation and Greco-Roman wrestling. Out of this grew his unique method of physical and mental conditioning which he and his wife Clara, a nurse, brought to New York City in the early 1920's. His first appeal was to dancers who went to him with injuries which threatened to sideline their careers. Well ahead of his time, Pilates' method encouraged non-destructive movement early in the rehabilitation process which ultimately helped to speed healing. Before long, the dance community had embraced Pilates' work.

By the 1990's many rehabilitation practitioners were using the method in fields as diverse as orthopedics, chronic pain, geriatrics, neuro rehab and more. In the rehab setting most Pilates exercises are performed on several types of apparatus. The apparatus work evolved from Pilates mat work, considered the most challenging part of the repertoire of over 500 exercises. On the apparatus, springs and gravity are used to assist an injured individual to be able to move without pain and to aide in recovery. By altering spring tension, a client can be progressed to functional movement safely and slowly. By eliminating the effects of gravity, muscle splinting and compensatory movement patterns can be reduced.

Motor Learning

Motor Learning theory suggests that faulty movement can be broken down into components. Each component is then remedied and integrated in a new, healthy movement pattern. In the Pilates environment movement is broken down on the apparatus by using springs and changing the body's orientation to gravity. Whether the desired movement outcome is walking, sitting, reaching, twisting, jumping, running or more, manipulation of the Pilates rehab environment can hasten reeducation by introducing pain free movement with progressive degrees of complexity and functionality.

Core Control

At the heart of Pilates' work was the belief that 'core control', or the ability to facilitate controlled movement through the trunk, was the essence of controlling all human movement. Well ahead of his time in this respect, we now know that the transversus abdominus muscle is a primary postural control muscle. Activated at a subconscious level during dynamic movement, as part of the body's motor plan, it provides trunk control during all dynamic movement, from walking to running marathons.

Trunk control and awareness are also greatly influenced by the multifidi muscles of the spine. Pain can inhibit these muscles, resulting in faulty compensatory movement patterns which prolong the healing process.

Working to improve awareness of this trunk musculature and to overcome compensatory movement patterns is a fundamental goal of Pilates in rehabilitation and is achieved

by working slowly through the Pilates rehab environment of apparatus and mat exercises.

The Exercise Progression

Initial sessions with patients focus on using the springs and eliminating gravity to assist movement on the apparatus. This way we help to decrease muscle guarding or unwanted muscle activity associated with pain or weakness. In this early stage, patients are taught recruitment of deep pelvic stabilizing muscles (transversus abdominus, multifidi, and obliques). Patients are encouraged to move uninjured joints while stabilizing injured sites.

Slowly, restoration of mobility at injured joints is encouraged. Using tactile and verbal cueing, correct breathing and appropriate assistance from the apparatus, patients can begin to gain confidence in pain free movement.

Challenging the newly acquired movement patterns is achieved by progressing the patient to a more functional environment on the apparatus or the mat. In advanced stages, Pilates based exercises can provide closed-chain foot and hand placements throughout a full range of all joint motions, providing articulation and nutrition to the joint and its connective tissue. Osteoarthritis, osteoporosis, degenerative joint disease and cartilage and ligamentous tears and repairs can benefit from increasingly graded loads in the Pilates environment.

The ultimate goal is to return the patient to pain free, functional movement related to their daily life, work or athletics, relying on newly found, healthy movement strategies to avoid further injury.

Case Study

S, a 48 year old female, came to me as a private client s/p THA. I had worked with this client prior to her hip surgery for approximately 8 months with the goal of maintaining hip range of motion and delaying surgery as long as possible. Her need for joint replacement was the result of avascular necrosis, possibly from a course of prednisone she had been given for another problem.

Her only post-operative rehab was the private Pilates sessions she had with me. She started 8 weeks post-operatively.

Initially she presented with antalgia, ambulating with a cane and loss of motion and strength in the L lower extremity. She was deconditioned from surgery and the weeks after spent recuperating.

S had spent many months with significant pain pre-operatively, resulting with muscular splinting around the hip and pelvic region. Early sessions aimed allowing her to relax her hips while stabilizing her trunk. Lying on her back on the Pilates Trapeze Table, her legs were easily supported