

PILATES REHAB PROGRAMMING

By Beth Evans, STOTT PILATES Instructor Trainer

Providing a rehab stream in their Pilates programming is something many facilities consider. It's no wonder then, that in a recent reader survey conducted by OnSite Fitness Magazine, 28% polled said that Pilates rehab programming is important to them.

Pilates is an ideal modality to help take care of these special populations within a facility's clientele. It can also help attract new clients who may eventually be streamed into the regular fitness programming (Pilates and otherwise).

Foremost to keep in mind is the key role Pilates can play in helping to ward off musculoskeletal injuries. A well executed, well taught Pilates program can help your members balance out their muscular system (get closer to optimal strength ratios), improve their posture (the underlying cause of so many injuries), increase their flexibility, and sharpen their coordination and balance. These benefits will help keep them healthy and injury free during their various fitness activities, their sporting activities and their daily lives.

Additionally, as part of a well-rounded fitness program and healthy lifestyle, Pilates can contribute toward preventing many so-called lifestyle diseases. Primarily because of its focus on the breath and the mind/body connection, it is crucial to relieving stress. Melanie Byford-Young, a physiotherapist and co-owner of Pacific Northwest Pilates, explains other advantages of the system, "the precision in each repetition is better done in Pilates than general exercise. Pilates has a holistic approach to the body, it is not just focused on one joint at a time, and can therefore address all the biomechanics which might lead into injury and dysfunction."

For clients who already have injuries or chronic conditions, Pilates can

be an important part of their recovery and management.

Byford-Young and her studio colleagues have helped clients with a long list of

issues: intervertebral disc injuries and other back issues, scoliosis, shoulder impingement, motor vehicle accident trauma, patellafemoral syndrome, arthritis, osteoporosis, spinal fusion, post surgical limitations, Parkinson's, breast and other types of cancer, lymphedema, pre and post partum issues and fibromyalgia.

Rehab programming can involve larger mat-based classes but will be most effective when equipment is incorporated into privates and smaller groups. The Reformer is the most versatile piece but classes can also involve the lesser-known Cadillac or the Chair. Moira Merrithew, Executive Director, Education and Co-founder of STOTT PILATES® explains, "The equipment can help clients fire into very particular muscles which is harder to facilitate with Matwork." This is where the sometimes supportive and directionally specific resistance of the Reformer and Cadillac really help.

Units like the STOTT PILATES V2 Max™ Plus Reformer or Rehab Reformer with Vertical Frame, which function as Reformers, Cadillacs and raised mats, are ideal in the context of rehab as they offer the greatest versatility. They are also excellent space savers for your rehab and non-rehab Pilates programming as they offer the greatest number of exercises from a single piece.

Pilates equipment lends itself well to the rehabilitation process because of its ability to support body weight, support the weight of limbs thereby unloading joints, and the ability to provide resistance (variable from very low load at the start of rehab) with springs thereby encouraging controlled and smooth movements. The equipment can help guide movements in the initial stages and provide opportunities to work in closed kinetic chain at the beginning of the rehab process and progress to open kinetic chain.

PJ O'Clair, owner of ClubXcel and Northeast Pilates Certification Centers in Massachusetts, who has years of experience working with many clients with many different issues and injuries, says "the equipment speeds up recovery because of the adjustable resistance it provides, the proprioceptive feedback, as well as its

encouragement of proper form. There is less chance of doing something incorrectly."

Byford-Young credits the equipment's dexterity with the ability to provide "many

modifications and progressions that can take the client from the acute stages of injury to full activity and function." She adds that clients "love working with equipment because it gives them a feeling of fulfillment and of a





having a good workout even when they are working at a low level. In a group class the equipment allows the instructor to challenge everyone in class even though they may be working at different levels.”

The Pilates Reformer is becoming a more and more recognizable piece of equipment in fitness facilities. It accommodates exercises in the supine, prone, seated, lunging, standing or kneeling positions. The permutations of amount of resistance and the ability to position the body so variously mean that exercises can range from very low load to very challenging and that every muscle group can be worked.

One of a number of things the Reformer

facilitates very well is work on alignment and function of the kinetic chain through the lower body. Participants can start out on very low load, working through careful ranges of motion in a supine position allowing the instructor to monitor alignment through ankle, knee, hip, pelvis and spine. Clients can gradually progress to higher loads, greater ranges of motion, coordination challenges, and work in more weight bearing positions.

The movement of carriage gives proprioceptive neural input, important for targeting the local stabilizing system of the body. Targeting the local stabilizers, deep muscles helping to minimize destructive shear forces and control the congruity of a joint, is key to rehabilitating many injuries involving altered body mechanics. Unlike many pieces of fitness equipment, the Reformer is not one-size fits-all. Not only does the resistance have almost infinite variability, but various adjustments (carriage stopper, footbar, headrest) control for the desired range of motion, and the flexibility and body proportions of the client. Exercises can be done in closed kinetic chain with the footbar, which stimulates local stabilization, and progress to open kinetic chain with the pulley ropes, necessary in order to return to functional activities.

The STOTT PILATES V2 Max Plus Reformer, with an additional vertical frame and adjustable pulley system at the back, allows the resistance to come from many different angles, allowing the exercises to support or challenge the participant through a much greater, 3-dimensional range of movement as well as targeting very specific muscle fibers. Moira Merrithew elaborates, “The resistance provided by the V2 Max Plus Reformer with height adjustability from different angles is invaluable in getting the correct muscles firing.”

The various stations of the Cadillac or Trapeze Table facilitate different aspects of rehab. The push-thru bar is perfect for facilitating, among other things, upper limb movement with correct form and low load. It provides a kind of pseudo closed kinetic chain, allowing movement, but guiding the movement at the same time.

PJ O’Clair found the Push-thru bar indispensable when helping a client recover from a double mastectomy, radiation and chemotherapy for breast cancer. The clients long thoracic nerve had been affected which inhibited the function of her serratus anterior muscle. “We used the push-thru bar to get mobility through the upper quadrant working with short rather than long levers so as not to pull on the soft tissue”, PJ says. “She could hold onto the bar and, with a light load, move through the range with the limb supported. The work is close to passive but not passive.” The push-thru bar is great for activating the local stabilizers around the shoulder joint, along with mobilizing the scapulae, and strengthening and balancing the muscles around the scapulae. The Roll Down bar attachment of the Cadillac can be used to facilitate spinal articulation, sequencing either from the top or bottom of the spine, and is particularly useful when client’s don’t have the abdominal strength to do these movements without assistance.

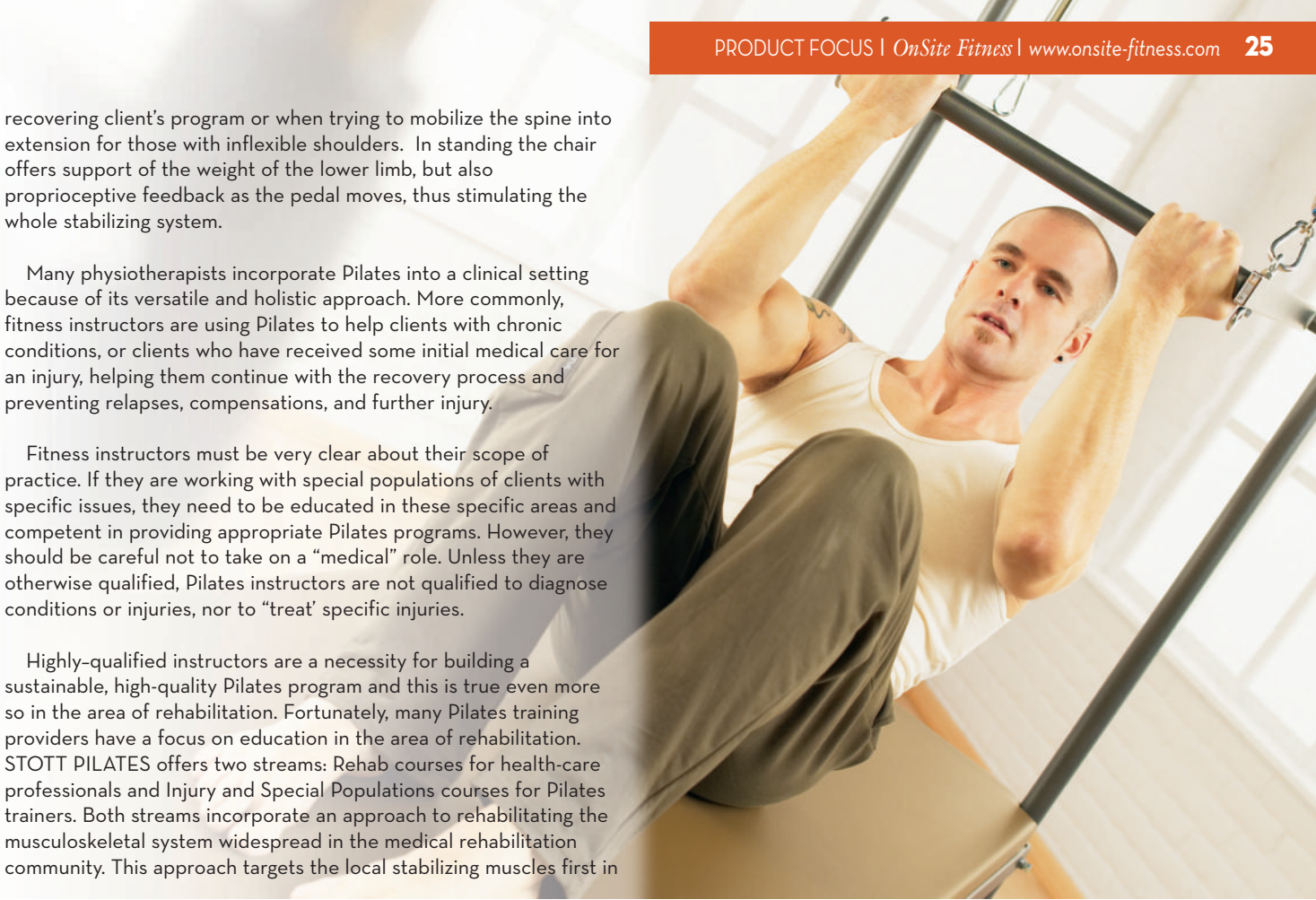
Another piece of Pilates equipment, the Stability Chair, usually thought of as a more challenging piece because of the smaller base of support, can be particularly appropriate in certain instances or rehabilitation: for example, when integrating standing work into a

recovering client's program or when trying to mobilize the spine into extension for those with inflexible shoulders. In standing the chair offers support of the weight of the lower limb, but also proprioceptive feedback as the pedal moves, thus stimulating the whole stabilizing system.

Many physiotherapists incorporate Pilates into a clinical setting because of its versatile and holistic approach. More commonly, fitness instructors are using Pilates to help clients with chronic conditions, or clients who have received some initial medical care for an injury, helping them continue with the recovery process and preventing relapses, compensations, and further injury.

Fitness instructors must be very clear about their scope of practice. If they are working with special populations of clients with specific issues, they need to be educated in these specific areas and competent in providing appropriate Pilates programs. However, they should be careful not to take on a "medical" role. Unless they are otherwise qualified, Pilates instructors are not qualified to diagnose conditions or injuries, nor to "treat" specific injuries.

Highly-qualified instructors are a necessity for building a sustainable, high-quality Pilates program and this is true even more so in the area of rehabilitation. Fortunately, many Pilates training providers have a focus on education in the area of rehabilitation. STOTT PILATES offers two streams: Rehab courses for health-care professionals and Injury and Special Populations courses for Pilates trainers. Both streams incorporate an approach to rehabilitating the musculoskeletal system widespread in the medical rehabilitation community. This approach targets the local stabilizing muscles first in



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the rehabilitation process, using neutral positioning, low loads, and proprioceptive feedback. Programs then advance to incorporate the global stabilizers, working in a controlled manner through fuller ranges of motion and increasing the load as able; and finally to incorporating the powerful, multi-joint, phasic global mobilizing muscles.

Facilities will also find many workshops, articles and DVDs available that link Pilates and rehab or Pilates and special populations. STOTT PILATES has recently released a series of DVDs of pre and post natal workouts. Soon to be released is a DVD of Pilates for those recovering from breast cancer treatment, as well as a new line of DVDs to accompany the STOTT PILATES Rehabilitation courses. All these have corresponding workshops taught at industry conferences and available to be brought on-site to any hosting facility. This is on top of existing back care and armchair Pilates DVDs and workshops.

Although there is a decided lack of large-scale clinical studies into Pilates and rehabilitation at the moment, it is just a matter of time before these types of studies are available. Many of the smaller studies that will lay the groundwork for subsequent larger studies have already been undertaken. The website of the Pilates Method Alliance references many of these. Byford-Young notes the "research going on at University programs in the U.K, Australia and North America is fuelled by the shear growth in numbers of people involved with Pilates who are also researchers." In the meantime, Pilates programs across North America and around the world continue to improve the health and quality of life for thousands of clients and provide a source of growth and revenue for the facilities that provide that programming.

For further information go to www.stottpilates.com and www.pilatesmethodalliance.com **OSF**

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