

**advance**

FOR DIRECTORS IN

# Rehabilitation



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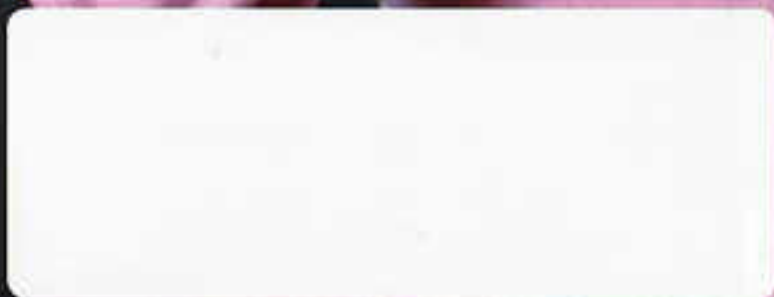
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## PRODUCTS AT WORK

BY STEVE PERCY, MS, ATC, PTA

# Training Movement

Med-Fit's Nautilus Freedom Trainer meets changing clinical demands.

**E**ACH DAY, FACILITY OWNERS AND managers must face the clinical and financial challenges of changing therapeutic environments. I recently confronted this quandary as clinical philosophies shifted toward yet another training method: "training movements not muscles," which emphasized the functional exercise school.

To enable our trainers to practice current therapeutic techniques, we renovated our facility and began researching equipment that would facilitate our functional exercise needs. However, we also understood that neuromuscular resistive training techniques continually undergo clinical metamorphosis. Thus, we needed a piece of equipment that could meet today's needs and adapt to tomorrow's changes.

Meeting our two most important criteria—versatility and size—the Nautilus Freedom Trainer, offered by Med-Fit Systems Inc. in Fallbrook, Calif., quickly emerged as my No. 1 choice.

This versatile, high-low pulley system adjusts and meets the needs of a wide range of clients. Its two counterbalanced vertical and horizontal articulating arms provide a multitude of positional adjustments. These arms are gas shock-assisted, making exercise transitions quick and effortless. This equipment effectively allows our staff to emulate and create an infinite number of exercise routines.

The Freedom Trainer pulley arms offer tremendous cable travel—more than 15 feet of movement. This feature adds a totally new dimension to triplanar-resisted gait and linkage training exercise. In addition, the machine occupies only 16 square feet in our 2,000-square-foot athletic training facility.

Our facility—the Paragon Club—is nestled among golf courses, tennis clubs and

equestrian facilities in Rancho Santa Fe, Calif. Patrons vary in age from 8 to 88 and are engaged in every activity level.

When these clients arrive at our center, athletic trainers complete evaluations and



Steve Percy instructs Jamie Firehammer as he performs a transverse rotational pull-punch movement pattern.

form individual session plans. We begin with stabilization and core exercises. The exercises progressively build up to movement routines, which promote proprioceptive facilitation and sequential neuromuscular coordination. We end programming with exercises that demand a higher level of neuromuscular stimulation, increasing intensity levels to stimulate deep fiber recruitment for maximal strength and performance development.

Typically, we begin sessions with exercises to stimulate the deep stabilizing musculature surrounding the shoulder and hip joints. The pulleys adapt easily to ensure proper positioning for these important isolation exercises. We then progress clients to single-leg stance exercises involving contralateral one-arm

push or pull motions (such as punching, pressing, rowing—from high- or low-pulley placements). These exercises help promote cross-body proprioceptive stimulation of the lower extremity joints through the upper extremity joints. For instance, performing a wood-chopping motion from a two-point stance achieves core, lumbo-pelvic and extremity stimulation, which yields neuromuscular development.

We also can transform total body movements into higher-level challenge exercises by progressively introducing unstable surfaces, such as foam rollers or balance pads. These exercises increase the body's proprioceptive demand for sensitivity to balance and coordination.

Along these same lines, we've developed a transverse rotations series to be performed seated on an exercise ball or in a one- or two-foot stance. The series incorporates twisting, pulling and punching, using single- or double-arm handholds, in a variety of movements and pulley positions. The movements promote rotation force production, which is key to athletic movement, stabilization and increased performance.

After clients have completed stabilization, core and movement patterning exercises using the system, we can set up Freedom Trainer's articulating arms to create strength challenge exercises for the prime movers of the legs and upper body. When clients perform these exercises slowly with high intensity loads, they stimulate deep fiber recruitment and maximal physiological strength development. In addition, clients who use the equipment can quickly and easily transition between exercises, such as squat-to-presses and step-ups.

The versatility of the Freedom Trainer for client adaptation and exercise selection is virtually limitless. No matter the use, the Nautilus Freedom Trainer is, by far, the most popular machine in our clinic. ■

Steve Percy, MS, ATC, PTA, is the owner of Paragon Club in Rancho Santa Fe, Calif.