

A Mat for All Seasons

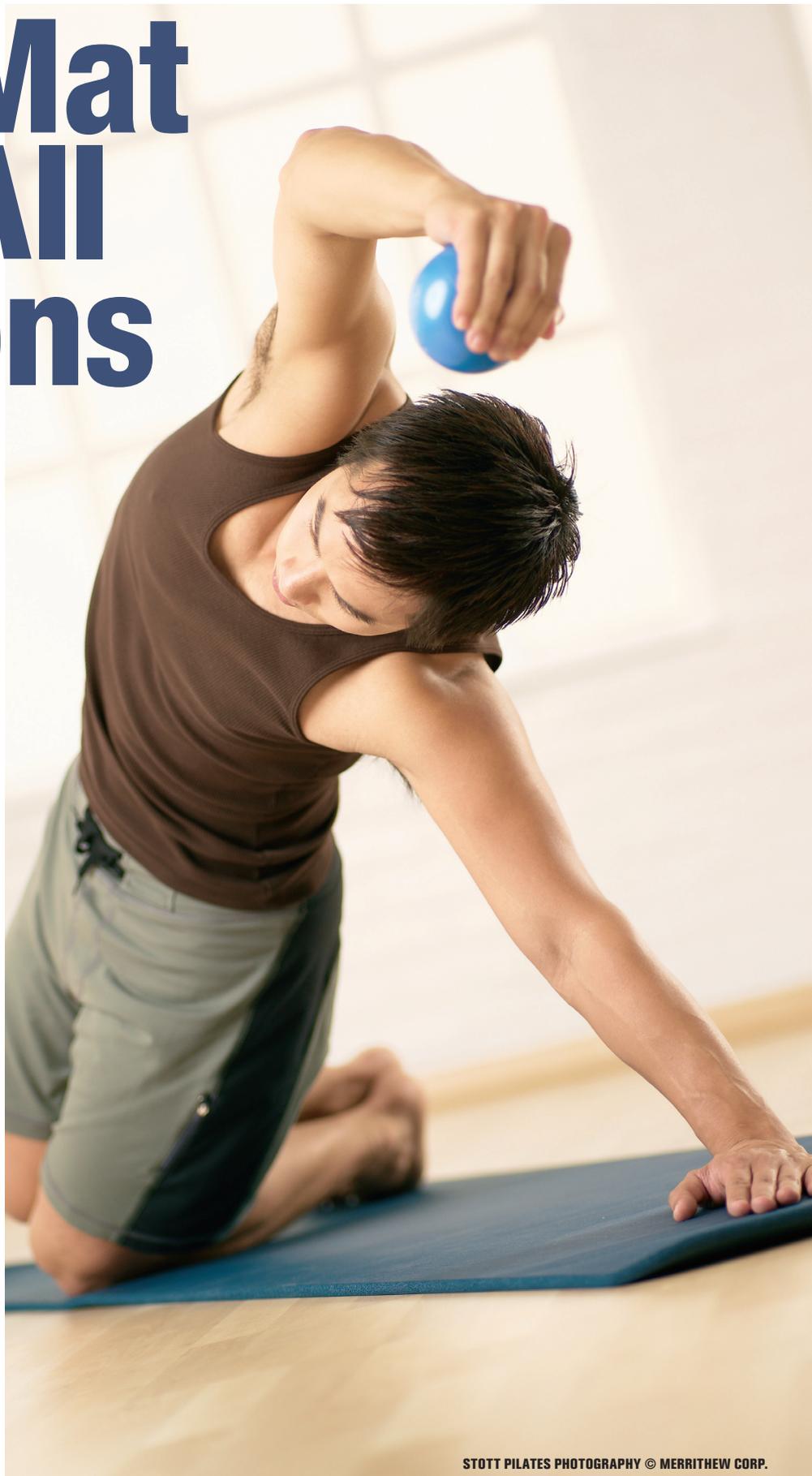
Athletes in any sport can benefit from the balance, flexibility, muscle control, and mindfulness developed through Pilates. With just a few basic supplies, you can implement a regimen that improves performance and overall health.

BY KERRIE LEE BROWN

The growing popularity of Pilates as a tool for enhancing athletic performance is no accident. More and more athletes are adopting Pilates because it's a versatile way to train without overstressing the body, the benefits are well documented by research, and, quite simply, users say the results speak for themselves.

So why isn't every athletic program taking advantage of what Pilates has to offer? One reason may be the belief that Pilates involves very intricate moves only dancers can execute, or that it requires large equipment that's bulky, expensive, and hard to obtain. But in reality, while Pilates *can* involve complex movements and *can* be performed with the help of machines like a Reformer, neither is a necessity. Pilates is a holistic approach to movement, muscle development, and concentration, and it includes a broad

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spectrum of activities—some of which require only a few basic props, such as toning balls, bands or straps, and mats.

Pilates offers many physical and mental health and performance advantages. Once you see how easy it is to introduce basic Pilates exercises to your athletes, you might consider making it a part of

creating new insight into the connection between the physical and psychological components of movement, strength, and agility. Athletes achieve this through a focus on breathing, concentration during movement, and engaging multiple body systems simultaneously.

Pilates develops an athlete's kinesthet-

bilizers. These are key for promoting joint stability, which is often compromised by repetitive high-demand training. The coordination and awareness athletes gain through Pilates can improve their movement control, leading to enhanced performance.

Furthermore, the focus on postural alignment in Pilates reduces unnecessary strain on the muscles and joints. Specific strengthening exercises help balance opposing pairs of muscles that support the joints, and once athletes incorporate these concepts into their training regimen, virtually every aspect of conditioning becomes more effective and healthier.

John Garey, owner of John Garey Pilates in Los Angeles and a STOTT PILATES® Master Instructor Trainer, has worked with many competitive athletes, including members of the USA Rugby national team. He says athletes who start using Pilates often tell him it makes them think about the body and its function in a whole new way, which translates into improved performance. "Whether they're cyclists, golfers, or rugby players, athletes find they

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their performance enhancement, injury prevention, and conditioning programs. If you do, I'm confident that before long, your athletes will thank you for it.

WHY PILATES WORKS

Athletic success depends on a unique balance of mental and physical skills. But how often does a traditional training program address the mental side of athletic performance? Part of the value of Pilates is that it enables athletes to develop greater mind-body awareness,

ic awareness, or where the body is in relation to itself and the world around it. That may sound like an abstract concept, but it's an essential component of every move we make. Athletes with a greater understanding of how their body travels through planes of movement have an advantage over their opponents in efficiency, balance, and coordination.

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transfer what they've learned in the Pilates studio to their sport—often subconsciously,” Garey says. “They find themselves thinking more about their ‘center,’ or core.”

“Pilates makes athletes get back in touch with their basic training principles,” Garey continues. “The benefits are absolutely amazing—they experience increased power, strength, and mobility.”

Another reason for implementing Pilates is the way it enhances injury rehabilitation protocols. Matt Nichol, Head Strength and Conditioning Coach for the Toronto Maple Leafs, says Pilates teaches rehabbing athletes to be more mindful of their movements—integrating their pelvis, trunk, and shoulder girdle in a safe, progressive system. “Pilates can be a very effective supplement to an injury rehabilitation program,” Nichol says. “It provides athletes with a challenging workout without excessive impact or weight bearing.”

Injuries such as torn ligaments or the breakdown of joint structures like the meniscus are normally caused by an extrinsic factor (a collision or sudden pivot) or an intrinsic factor (repetitive strain or overtraining). An athlete will often compensate for lost function in an injured area through movements that disrupt the proper sequencing of their neuromuscular system. If the deeper stabilizing systems do not fire properly, big muscles are recruited to do the work of small muscles. By emphasizing movement efficiency and stabilization, Pilates addresses this problem.

Pilates can assist in injury prevention as well. The exercises in a Pilates workout develop core strength while promoting a controlled lengthening of the muscles. They enhance the overall flexibility of the lower back, hamstrings, and shoulders—three body areas where injury is often linked directly or indirectly to a deficit in range of motion.

Finally, Pilates heavily emphasizes breathing, which provides athletes with a physical and mental edge. Whether it's a basketball player preparing for a clutch free throw, a swimmer hoping to optimize the timing and depth of her breaths, or a golfer looking for an extra measure of focus and concentration while putting, greater awareness of breathing developed through Pilates can pay important dividends in virtually any activity.

HITTING THE MAT

Now, let's get into some specific Pilates exercises that can benefit athletes. Each exercise described below requires no advanced Pilates training or knowledge, and the equipment can be found in almost any fitness or athlete development facility.

Ab Prep. This exercise challenges all three levels of abdominal muscles: the local stabilizers, global stabilizers, and global mobilizers. The athlete begins lying on their back with feet hip-distance apart and flat on the mat, with the

spine in a neutral position. Toning balls, roughly the size of apples and weighing one, two, or three pounds, are placed under each hand with the palms facing down. (See Figure One on page 45.)

As the athlete inhales, they nod their head forward slightly. As they exhale, they curl the upper body off the mat until they can see their toes without pressing the lower back into the floor. They simultaneously let the toning balls roll toward their feet as their hands move forward. On the second inhalation they hold this position, then while exhaling, slowly

lower the shoulders and head back to the mat and roll the toning balls back to their original position near the hips.

In this exercise, the hands on the toning balls allow for a more neutral position of the shoulder joint, providing a proprioceptive tool to engage the shoulder musculature. It also challenges upper-body strength while relaxing the hip flexors, which are well developed in many athletes, but often too tight to support optimal movement.

Breast Stroke Prep. This exercise strengthens the upper-back erector spinae without overworking the lower-back musculature. The athlete begins lying on their stomach, legs slightly apart, with the front of the hips flat on the mat and their nose hovering slightly off the ground. The elbows are bent so that the hands are near the shoulders on either side of the mat, with palms down. Once again, each hand is placed on a toning ball. (See Figure Two at right.)

On the first inhalation, the athlete stabilizes their shoulder blades and contracts their abdominal muscles, creating a slight arch with the upper body while keeping the hands and toning balls still

and the bottom ribs in contact with the floor. As they exhale, they maintain this spine position and move the hands forward and outward (rolling the toning balls underneath), away from the torso. On the second inhalation, they bring the hands and toning balls back in, still maintaining the upper-back arch and shoulder stability. While exhaling, they lower the upper body and return to the starting position.

The toning ball under each hand challenges the shoulder girdle as the base of support by creating instability. As the arm is challenged in extension, the upper spine extends, and the movement strengthens the latissimus dorsi and posterior deltoid. In addition, by observing the athlete during this exercise, you can easily see strength imbalances between the left and right sides of the body, since the base of support is unstable.

Obliques Prep. This exercise focuses on strengthening the rectus abdominis to bring the upper body into flexion. The athlete begins lying on their back with knees up (femurs at roughly a 45-degree angle from the ground) and feet flat on the mat. The spine is neutral,

feet are hip-distance apart, and hands are behind the head. A toning ball is held between the knees. (See Figure Three at right.)

As the athlete inhales, they nod the head slightly forward. Then while exhaling, they curl their upper body off the mat, rotating the left shoulder toward the right knee. On the second inhalation, they lower the body to the starting position, then repeat the movement with the opposite shoulder while exhaling.

The hands behind the head in this exercise create a longer lever, which increases the challenge to the abdominals while supporting the head and neck in a neutral position. The obliques are strengthened as the spine rotates, and the toning ball between the knees strengthens the adductor muscles at the same time. The upper spine is forced through two planes of motion while the pelvis is challenged to remain neutral, a movement pattern that increases biomechanical efficiency.

Hip Rolls. In this exercise, sequential articulation of the spine begins at the spine's base, thus challenging coordination and neuromuscular facilitation. Like in the Obliques Prep, the athlete



Figure One: Ab Prep



Figure Two: Breast Stroke Prep



Figure Three: Obliques Prep

begins with knees off the ground and feet hip-distance apart, but this time, a toning ball is placed under the arch of each foot. The spine is neutral and arms are at the sides, with the hands near each hip, palms down. (See Figure Four on page 46.)

The athlete inhales without moving, then while exhaling, they start at the tailbone and slowly peel the spine off the mat until the torso is in line with the femurs and body weight is resting between the shoulder blades. On the second inhalation, the athlete keeps tight abdominals

and holds the position. While exhaling, the spine slowly returns to the mat from the top down, as the athlete returns to the start position.

This exercise provides an excellent strength, mobility, and stability challenge by placing the toning ball under each foot—the muscles of the foot, ankle, knee, and hip must work to maintain a neutral position. Meanwhile, the back extensors lengthen, which trains balance in the posterior musculature.

Side Bend Prep. To work the lateral musculature and strengthen the del-

FINER POINTS

When putting athletes through the exercises described in this article, and any other Pilates exercises, remember these points of emphasis.

- **Breathing.** Make sure your athletes breathe through each movement. In any exercise, holding one's breath has detrimental effects. Breathing consistently increases oxygen supply to the muscle, reduces strain, and promotes fluid movement.
- **Alignment.** No matter what part of the body is working, the entire body should maintain the best alignment possible. If body segments are misaligned, tension increases and individual joints and muscles are more susceptible to stress.
- **Visual focus.** Keeping eyes focused forward helps ensure that the head and neck are properly aligned. This reduces neck and shoulder tension, improves mental focus, and can also help alleviate neural issues in the upper body.
- **Less is more.** Slow, controlled movements are sometimes harder to perform, but patience is a virtue and control is important. Performing exercises deliberately allows greater focus and helps ensure that each movement is executed correctly.

toids, obliques, and gluteus medius, side bends are invaluable. For this exercise, the athlete begins sitting on their right hip, with their right hand on the mat. The knees are bent and together, and the top forearm rests against the top thigh, with the hand holding a toning ball. While the spine feels out of alignment in this position, the shoulder blades should be held stable. (See Figure Five at right.)

After inhaling without moving, the athlete exhales while lifting the lower hip off the mat, distributing their weight evenly between the hand on the mat and the lower knee. They contract the inner thighs, abs, and glutes, and extend the top arm (with the toning ball in-hand) over the head. Then, while inhaling, the athlete slowly lowers back to the starting position. This movement is performed an equal number of times on each side.

Beyond the strength benefits, this exercise improves flexibility and range of motion. It also challenges the shoulder girdle, stabilizers, and mobilizers.

IMPLEMENTATION

Athletes new to Pilates may be surprised at how challenging these movements are, and you can adjust the number of reps in response to their feedback. A typical session might use the five exercises described above as a warmup routine, with

the athlete completing five to eight repetitions of each. During Obliques Prep and Side Bend Prep, lateral symmetry is important, so be sure the athlete performs the same number of reps on each side.

An ideal warmup prepares both the mind and body to act succinctly to create movement. A Pilates progression achieves this by activating all the major muscle groups, joint structures, and energy systems, while instilling a focus on controlled movement, breathing, and mental focus. It also lowers blood pressure and improves blood flow, which increases cardiac output.

These and other Pilates exercises can be used beyond warmup as well, and the best guide is an athlete's performance goals. For instance, if you've identified weak shoulder stabilizers as one athlete's problem, you might prescribe the Side Bend Prep and similar variants that engage the shoulder musculature. Meanwhile, an athlete who struggles with balance and coordination might use a series of Pilates movements that, like Hip Rolls, emphasize overcoming instability.

As a prelude to strength training, Pilates can target joint stabilization before loading begins. An athlete who trains eccentric strength in this way will have an easier time with deceleration movements during strength training,



Figure Four: Hip Rolls



Figure Five: Side Bend Prep

and enjoy better overall joint control.

When mind and body work in full coordination, athletes achieve large gains in strength, skill, neuromuscular balance, and biomechanical efficiency. In addition, the enhanced body awareness and mental acuity they develop through Pilates can provide a performance edge they never expected. By incorporating mat work into your athletes' training regimens, they'll find that even the simplest movements can have profound effects. ■

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