

## bust stress with Pilates principles

The mindful characteristics of Pilates make it an ideal way to remain placid in the churning ocean of life.

Life constantly presents changes and challenges that promote learning, growth and optimal function. Individuals respond and adapt to these trials differently. When people lose their capacity to cope successfully, they can experience negative stress. This form of stress has been identified as an influencing factor in cardiovascular disease, diabetes, immune system problems, poor wound healing and musculoskeletal

pain (Rozanski, Blumenthal & Kaplan 1999; Pickering 2001; Krantz 2000; Goetsch et

al. 1990; Sur-wit & Schneider 1993; Glaser et al. 1999; Rozlog et al. 1999; Lundberg, Dohns & Melin 1999).

The Pilates method is a successful tool for self-management of the stress reaction. In fact, in 1920 Joseph Pilates (founder of the Pilates method) defined his work with six principles that are remarkably similar to today's proven methods of managing stress: relaxation, breath, concentration, guided imagery, heightened body awareness and mindfulness. When combined with your strong cuing skills, these methods can help your clients successfully reduce the negative stress in their lives.

### 1. Relaxation

Joseph Pilates always said that "one must move without tenseness" (Pilates 1945). By this he meant that during exercise, only the muscles needed for the activity should be recruited, while all other muscles remain relaxed. Through Pilates, participants learn selective relaxation of muscles not required for the task at hand. Pilates instructors incorporate verbal cuing and physical touch to bring about selective relaxation.

**Challenge:** Preventing the shoulder blades from rising and the upper trapezius and levator scapulae from turning in when "challenged." I've seen participants struggle with this during many Pilates exercises.

**Solution/Cuing:** Cue your student to "draw the shoulder blades down the back, and reach out of the top and back of the head." You can provide a physical cue by touching the serratus anterior on either side to cause it to contract, thus repositioning the scapulae. The result of this cuing is a lengthening of the neck and slight depression and protraction of the scapulae so your client can move them down the back and "out of the ears."

**Challenge:** Incorporating the rectus

abdominis in the Hundred exercise. Often, you may see the rectus "pop up," causing the deep abdominal muscles to shut off.

**Solution/Cuing:** To engage the deep abdominals, cue your client to draw the navel to the spine. This relaxes rectus abdominis and enables the deep abdominals to engage. Some instructors may also give a physical cue by pressing on the tendon of the external oblique near the anterior superior iliac spine of the pelvis, causing the muscle to contract.

### 2. Breath

Diaphragmatic breathing is a vital part of every stress management program. It is also one of the primary principles in Pilates. Diaphragmatic breathing presents "moment awareness" in people's busy lives. That is, it reminds people to experience life in the present moment and allows them time to recognize distress and choose an alternative response.

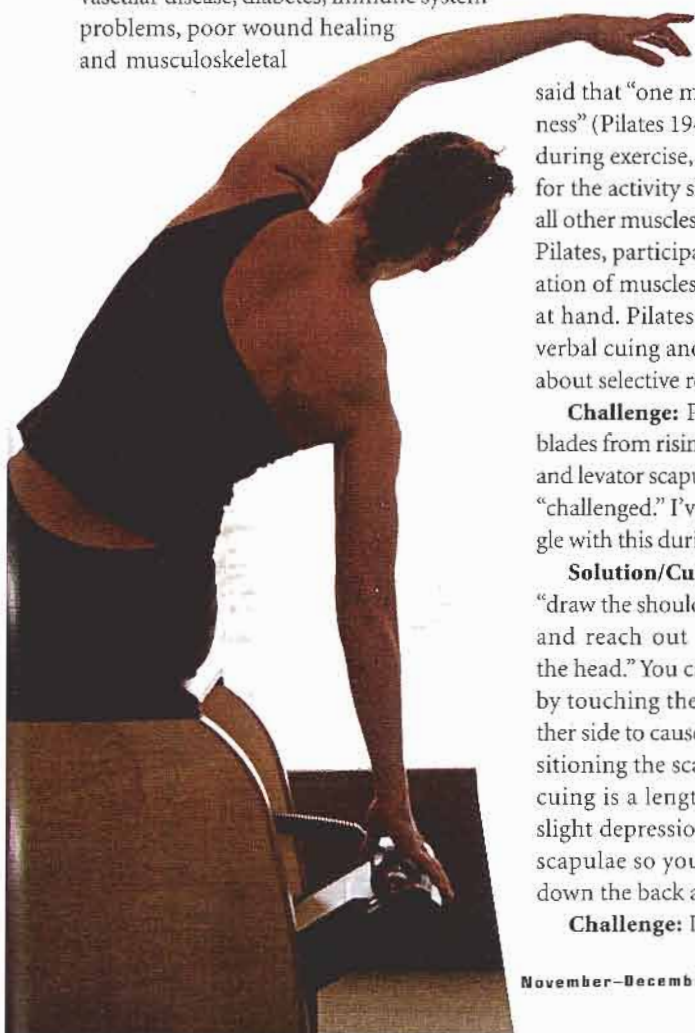
**Challenge:** Emphasizing the breath.

**Solution/Cuing:** Encourage diaphragmatic breathing by cuing deep inhalation, expansion of the rib cage, and navel-to-spine emphasis on exhalation. This engages the transversus abdominis to assist with full and complete exhalation. Some Pilates instructors incorporate Fletcher breathing, during which the exhalation is forced through the teeth. This is similar to using a spirometer, which exercises the exhalation muscles after surgery.

Each Pilates exercise demands a specific method of breath. Through careful attention to your cues to properly inhale or exhale at a certain point in the movement, your student can achieve moment awareness.

### 3. Concentration

Concentration is similar to a common stress management technique called progressive relaxation. Through this technique, one learns muscle awareness and relaxation by contracting and relaxing different muscle groups. In Pilates the



muscle groups contract and relax in specific patterns. Joseph Pilates emphasized concentrating on the correct movement each time you exercise and mastering the movements to the point of subconscious reaction (Pilates 1945).

**Challenge:** Concentrating intensely enough to master correct movements.

**Solution/Cuing:** Use specific verbal cues that underscore concentration. For example, in the exercise called Coordination, the client lies supine and then rolls up into spinal flexion with legs extended into the air. After rolling up the first time, the head and shoulders never return to the mat, although the legs and arms push in and out. The natural response is for the head and shoulders to go down when the legs and arms come back in; however, this is not permitted for a series of 5 repetitions. On the 5th repetition, the participant even adds heel beats and leg crosses. This exercise takes great concentration and control over the contraction and relaxation of muscle groups. It goes against the natural patterns of movement, so it becomes the perfect exercise to progressively relax or contract muscle groups.

#### 4. Guided Imagery

Guided imagery is a method of stress reduction that teaches relaxation by having you imagine yourself in a calm and peaceful place. Pilates is taught with imagery provided by the instructor.

**Challenge:** Guiding your client through a session with imagery.

**Solution/Cuing:** You may ask your client to bring each vertebra to the floor “like a string of pearls being dropped” or to “reach out of the leg as if you were drawing on the ceiling.”

In traditional exercise programs, the instructor leads participants. Often, students mimic the instructor without fully reproducing the movements. This can result in participants “shutting off their minds” and simply performing rote movements. In Pilates, instructors describe movements verbally and the class reproduces them; descriptive cues create a series of exercises and breathing patterns.

I learned how important cuing was when I had a blind participant. Not only did directional cues become important, but cues of feeling and imagery did also. You might lead with guided-imagery cues such as, “Reach long out of the arch of

your foot. Slap water with your hands. Zip and wrap your thighs as if you were zipping up a dress.”

#### 5. Heightened Body Awareness

There are many methods of stress management for heightening body awareness—for example, the relaxation body scan and autogenic training. In Pilates, heightened body awareness is reached through the principles of precision, control and centering. Clients learn to be very precise in their movements, making each come from just the right place and controlling each without momentum. This practice can directly affect your client’s ability to manage physical stress.

**Challenge:** Controlling movement without using momentum.

**Solution/Cuing:** In the mat exercise called Leg Circle, the client lies supine with one leg on the floor and one extended to the ceiling. He or she is asked to draw a capital “D” with the leg that is extended to the ceiling. The client *controls* breathing by inhaling at the start of the movement and exhaling on the return to the start position. The leg stops abruptly

but *precisely* at the start position before starting the movement again. The torso is held completely still during the Leg Circle, thereby reinforcing *centering*. This adds to the exercise by helping the client become aware of the trunk and where it is in space.

## 6. Mindfulness

Each of the five principles already discussed are good examples of practicing mindfulness. Mindfulness enhances a person's quality of life with an invitation to live in the present moment, reducing the effects of negative stress. When we are mindful, our full attention is in the here and now.

When I first started Pilates, I discovered it was very different from the other forms of exercise I had experienced. For example, I am an avid runner and, when I run, my mind wanders. I think about everything from my kids to my work. Conversely, when participating in Pilates, I am so busy breathing, keeping my trunk in line, relaxing and contracting the correct muscles, and listening to the imagery of the instructor that I can't possibly think of anything else! I am in the here and now and totally aware. I leave the session feeling calm and re-energized.

What we think we know can be the biggest obstacle in achieving mindfulness. Even though Pilates has been around for many years, it is a very new technique to the general population. The equipment and movements are foreign. As an instructor, you have the ability to take away students' preconceived ideas and expectations. Participants can meet the world with a "beginner's mind" and a willingness to see things as if for the first time. This benefits you immensely as an instructor, because it means clients will listen and follow more openly. The Pilates repertoire provides you with the necessary tools to empower participants to listen to themselves in a healthy, healing manner and avoid the stress reaction. ■

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## References

- Clark, M., & Romani-Ruby, C. 2003. *Pilates Matwork for Fitness and Rehabilitation Professionals*. Pittsburgh: Word Association Publishers.
- Glaser, R., et al. 1999. Stress-related changes in proinflammatory cytokine production in wounds. *Archives of General Psychiatry*, 56 (5), 450-6.
- Goetsch, V.L., et al. 1990. Stress and blood glucose in type 2 diabetes mellitus. *Behaviour Research and Therapy*, 28 (6), 531-7.
- Krantz, D.S., et al. 2000. Effects of mental stress in patients with coronary artery disease: Evidence and clinical implications. *Journal of the American Medical Association*, 283 (14), 1800-2.
- Lundberg, U., Dohns, I.E., & Melin, B. 1999. Psychophysiological stress responses, muscle pain, and neck and shoulder pain among supermarket cashiers. *Journal of Occupational Health*, 4 (3), 245-5.
- McManus, C.A. 2003. *Group Wellness Programs for Chronic Pain and Disease Management*. St. Louis: Elsevier Science.
- Pickering, T.G. 2001. Mental stress as a causal factor in the development of hypertension and cardiovascular disease. *Current Hypertension Reports*, 3 (3), 249-54.
- Pilates, J.H. 1945. *Return to Life Through Contrology*. Incline Village, NV: Presentation Dynamics Inc.
- Rozanski, A., Blumenthal, J.A., & Kaplan, J. 1999. Impact of psychological factors on the pathogenesis of CVD and implications for therapy. *Circulation*, 99, 2192-217.
- Rozlog, L.A., et al. 1999. Stress and immunity: Implications for viral disease and wound healing. *Journal of Periodontology*, 70 (7), 786-92.
- Surwit, R.S., & Schneider, M.S. 1993. The role of stress in the etiology and treatment of diabetes mellitus. *Psychosomatic Medicine*, 55 (4), 380-93.