



Matthew Zumann, owner of Golden Wellness Pilates studio in Chicago

# center your strength

These exercises will help alleviate common job-related aches involving the low back, shoulders, neck and hands.

By JoAnn Milivojevic

Photos by Chip Williams

For some time now, core and functional training have been all the rage in the world of fitness. These approaches are worth their weight in buzz because they help people function better in daily life. Core training and functional training are two sides of the same coin. Both focus on strengthening the center of the body to stabilize the spine. A strong center helps you do everything more easily—from running a marathon to working at a computer to massaging a client.

Each person is a unique musculoskeletal package with different daily activities. That's why fitness experts who specialize

in core and functional training carefully assess a client's daily activities to customize an exercise routine. There's nothing like an expert's fitness assessment, but we all share some common daily life movements. We sit. We stand. We walk. We reach up to cupboards for a can of soup.

The same is true in the massage therapist's world. Each massage therapist develops a unique working style using fundamental movements. Many of you share common job-related aches, such as to the low back, shoulders, neck and hands. A strong center, experts say, can relieve all of these.

The bottom line in injury prevention is a strong and stable core. Stability enables you to move freely using correct biomechanics. "I need strength to stabilize the spine, but I still need to be able to move the body," says Dixie Stanforth, instructor of kinesiology and health education at the University of Texas in Austin. She also is a spokesperson for the American Council on Exercise.

According to Stanforth, an unstable core will drive problems in the spine from top to bottom. Issues could show up anywhere, such as in the hips or in the feet. To

drive the point home more dramatically, Stanford asserts that if you have a weak core you are almost assured of getting some sort of injury.

With that in mind, we asked fitness experts to suggest functional core exercises that would be most applicable to the needs of massage therapists. A variety of detailed exercise routines accompanies this article, which you can share with your clients as well.

Massage therapists, like most adults, have ingrained patterns of movement both in and out of the treatment room. When those movements come from the core, we move correctly. Caroline Creager, fitness author, licensed physical therapist and owner of Berthoud Athletic Club in Berthoud, Colorado, explained the process. "Our central nervous system (CNS) recruits the deep erectors and the transversus abdominus as well as ancillary muscles," says Creager, "Sometimes the body learns compensatory movement patterns to protect injured muscles. If compensatory patterns are repeated often enough, they become habitual. "Bad habits create problems. And sometimes the body can just get plumb lazy."

"Our bodies are amazing," says Stanforth, "We figure out how to do things in the easiest way without trying. In core training we learn the sequential firing of muscles in the way that produces stability."

Low back pain is a common complaint from many people, including massage therapists. According to Creager, when you have low back problems, core stability muscles can begin to atrophy. Superficial muscles begin to take over, and the core muscles either shut off or the firing pattern is incorrect. To correct misfiring and muscle atrophy you need to retrain muscles with mind/body awareness. You need to use your mind to ensure movements come from your center.

### gain not pain

A few aches and pains after a long day at the massage table certainly aren't unusual. But don't ignore them, advises Matthew Zumann, a Chicago-based certified structural therapist and owner of Golden Wellness Pilates studio. Acknowledgement



Pilates and yoga are perfect examples of mind/body exercises that develop the core.

of the issue is the first step to recovery, according to Zumann. As a structural therapist, he understands the daily pressures that massage therapists experience.

"With my practice, there are a lot of positions that one has to be in," says Zumann. "I hold myself accountable for the right foundation. If I feel something is sore, I know I am not holding myself accountable for the

right antagonist and agonist muscles, and I have to fix it. Quite often it means engaging my underarms or my transverse abdominus more fully."

Mind/body exercises are an excellent way to strengthen your core and subsequently reduce common aches and pains. The exercises require a lot of concentration, but it can also be a lot of fun to experience your body

a new approach on how can we strengthen core muscles concurrently," says Lynn Millar, Ph.D, Andrews University and fellow of the American College of Sports Medicine. "Some of the newer core exercises, such as those performed on a ball, ask us to contract both the back and the abdominals at the same time."

While there's nothing wrong with a basic sit-up or crunch, it's more efficient to teach the body how to stabilize the spine while you are moving your arms and the legs. Pilates and yoga are perfect examples of mind/body exercises that develop the core. Both disciplines focus on quality of movement over quantity of movement.

Pilates, like yoga, asks you to "multitask" while you perform an exercise. It requires proper focus, breath work and concentrated precise movements that come from the center. By pulling the abdominals in (rather than letting them pooch out when you execute a movement) you're working the deeper, spine-stabilizing muscles more so than the superficial ones. Pilates creates long, lean muscles, a more relaxed and focused mind, and a very strong center. The key, of course, is to do the exercises properly. You have to think and feel your way through core exercises. (See the Pilates routine that accompanies this article.)

Most core training exercises (Pilates mat classes included) are performed on the floor. While this is certainly effective, massage therapists perform their daily work standing up with arms outstretched and loaded through the legs. So from a functional perspective, it makes sense to do some core exercises in an upright posture. Standing yoga poses (also called Asanas in Sanskrit) are ideal for this purpose.

Standing postures teach you to create a good balance point, and that requires you to engage your center. Mountain pose is one of those deceiving poses that looks like someone is simply standing there. But done correctly, there is focused concentration from head to toe. The head properly balanced over the shoulders, shoulders align over the hips, and knees are over the feet. You are equally weighted on the right and left side as well as front and back. The

## defining the core

The core of the body includes the muscles of the pelvis, abdomen, shoulders and back. Specifically, these groups include the abdominals (rectus abdominis, transversus abdominis, internal and external abdominal obliques), hip musculature (iliopsoas; rectus femoris; sartorius; tensor fasciae latae; pectineus; gluteus maximus, medius and minimus; semitendinosus; semimembranosus; biceps femoris; adductor brevis, longus, and magnus; gemellus superior and inferior; obturator internus and externus; quadratus femoris; piriformis), and spinal musculature (erector spinae, quadratus lumborum, paraspinals, trapezius, psoas major, quadratus lumborum, multifidus, iliocostalis lumborum and thoracis, rotatores, latissimus dorsi, and serratus anterior).

Source: Gatorade Sports Science Institute

through intense dedicated focus. With core training, muscle control and awareness move to exhilarating new heights.

### quality of movement

When people think of core exercises, many think of doing hundreds of sit-ups to get those washboard abs. But it isn't so much what you do, it's how you do it. "There's

# foam roller quickies

Caroline Corning Creager, physical therapist and author, especially recommends these exercises for massage therapists. Rollers come in a variety of shapes and sizes. The exercises below suggest using a full roller, which is three feet long and six inches in circumference. For all the exercises, avoid bouncing, slowly stretch to level of tolerance, and breathe throughout the stretch. Hold each position for 20 seconds. Repeat each three times. These exercises may be performed daily.

## supine stabilization 90/90

Lie on side with knees bent. Roll back onto roller with feet off floor. Place arms along side of roller. Raise one knee, then the second knee toward the chest. Maintain a 90 degree angle between knees and hips.

**Benefits:** Strengthens abdominal, back and leg muscles.



## thoracic mobilization

Lie on side. Place roller horizontal to body next to upper back. Roll back onto roller with knees bent. Place feet flat on the floor. Inhale. Place unclasped hands behind the head. Exhale. Gently lower head until light resistance is felt. Don't arch the back or pull on the neck.

**Benefit:** To relieve midback stiffness and open up the back.



## chest stretch

To maneuver yourself onto the roller, lie on your side with knees bent and roll back onto the foam roller, feet flat on the floor. Extend arms horizontally and bend one or both elbows to 90 degrees. Hold the position.

**Benefit:** Stretches entire chest area.



## stand on a foam roller

With shoes off and foam roller placed horizontally, stand on a foam roller with feet hip width apart, align knees over feet and balance. Maintain standing with natural curve in back. Place the roller near a wall or chair in case you need to momentarily assist your balance.

**Benefit:** Do this before and after giving a massage to help re-center yourself.

These exercises were excerpted from Creager's book, *Therapeutic Exercises Using Foam Rollers*. For more information, go to: [www.carolinecreager.com]. Her books are available through Orthopedic Physical Therapy Products: phone: 800-367-7393, or via Web: [www.optp.com].



energy flows up from the earth and through the crown of your head. In mountain pose, you are lifted, light yet strong, with the muscles of the core stabilizing you in that position.

Laura Jane Mellencamp is a massage therapist and owner of Yoga Among Friends in Downers Grove, Illinois. She finds that the practice of yoga is fundamental to her work as a massage therapist. This ancient discipline roots her to her center of strength, both spiritually, energetically and physically. "If you are not rooted," explains Mellencamp, "you lose energy and you will always be running after it." (See the yoga exercises for massage therapists' routine for more standing poses, pages 54 and 55.)

## foam rollers, balls and boards

Variety is the spice of life and a great way to stay with a core strengthening program. Foam rollers, stability balls and balance boards are fun toys to add to your core training routine. What's especially nice about these devices is that it's impossible not to

engage your core when using them because quite simply, you'd fall off. But these fitness toys also provide other benefits.

"When used properly, foam rollers provide sensory motor challenges on two planes," says Creager. "They also enhance balance reactions, body awareness, muscle reeducation, motor planning and neural flexibility."

Balance boards come in various configurations. Fulcrum-based rocker boards move in only one directional plane—a good beginner's choice. The more challenging wobble boards move in every direction—look for one with a wide bottom base. The Reebok Core Board offers three levels of stability and more exercise variety. (You can do lunges, sit-ups, and push-ups, working targeted muscles and your core at the same time.) Like foam rollers and stability balls, start by holding your balance. When you are stable, add slow controlled movements such as arm raises. (For a wide variety of core training devices, including balance boards, go to [www.power-systems.com](http://www.power-systems.com).)

If you've ever noticed that one side of your body is stronger than the other, know that working on unstable devices helps even out strength differences. That's because to stabilize, your muscles must pull symmetrically. Adding a balance component to your core training routine has another important benefit: as we get older, our sense of balance deteriorates. Exercises that challenge your balance minimize that loss. Stability balls are another fun way to work your core. A good source for balance ball workouts on DVD is available through [[www.Gaiam.com](http://www.Gaiam.com)]. Look for those by fitness expert Suzanne Deason.

## not for exercise time only

In addition to developing your core during exercise sessions, you can also improve your strength throughout your day.

"Everything we do has potential to be core training," says Stanforth. "It's how you sit, stand and move all day long that is part of your core training. Learn to keep your spine stable while moving your body. If we could teach people how to do that from a young age we would see a marked decrease in back injuries."

Zumann concurs and adds an intriguing twist. "Be a detective and hold yourself accountable," he suggests. "Sometimes very mundane daily tasks need to be analyzed to ensure you are using the right supporting muscles. Non-momentum-based movements and exercise have to be incorporated into our lives for proper preventative maintenance and pain management."

Developing your awareness and your core will not only ease common massage therapy-related aches and strains—it just might eliminate them altogether. Try the following routines to experience the wealth of benefits that functional core training offers. Enjoy and have fun!

# pilates four (for the massage therapist's core)

Do these exercises four times per week for optimal benefits. Matthew Zumann states that you need only do four to six reps of each exercise because with right intention, that's all you'll need! The four exercises he details below are for spinal flexion, extension, sidebending and rotation—the principles of the Pilates series. According to Zumann, in Pilates, the word “core” refers to the deep, intrinsic musculature surrounding and supporting the spine, pelvis and shoulder girdle. These muscles provide deep strength and flexibility to the joints and fluid, supported movement. In Pilates, engaging the core, or powerhouse, includes the use of three main muscle groups:

- 1) **Pelvic floor**—same muscles used to stop the flow of urine.
- 2) **“Navel to spine” muscles**—transverse abdominals, internal obliques, and deep spinal muscles.
- 3) **Rib Cage**—external obliques drawing the bottom back ribs to the floor.

**exercise preparation:**  
**engaging the core**

Lie supine with knees bent and feet flat on floor. Palpate the front of the pelvis to see that the ASIS and pubis are on the same plane, parallel to the floor. Let palms rest on low abdomen. Inhale to expand wide, like an accordion, and exhale to engage the core. The pelvic floor will draw up into the body as though you are stopping the flow of urine. The navel deepens toward the spine without tilting the pelvis, creating a hollow bowl in the belly. The floating ribs draw into the floor, engaging the external oblique muscles in the upper abdomen. Resist the urge to shorten the front of the body and tense the neck and chest. Use these core muscles during the following four exercises.

*These exercises were written by Matthew Zumann, owner Golden Wellness Pilates Studio, Chicago, Illinois. He can be reached at Zumann@sbcglobal.net.*

## the hundred prep >

Lie supine, feet flat on floor, neutral supine. Inhale slowly and stretch arms (shoulder-wide, touching body, palms down). Slide the scapulae toward the feet. Exhale slowly, engage core muscles, peel head, upper spine and arms off the floor. Deepen lower rib cage into the floor and round the spine up over the floating ribs. Maintain the neutral pelvic position, checking that the abdominal wall is hollowing and deepening, not tensing and pressing upwards. Inhale and lift the arms to 6 inches, exhale to return arms to 2 inches. Continue for five to 10 breaths. Lengthen body back to floor, relax completely.  
**Benefits:** Strengthens core and scapular stabilizers, improves thoracic flexion.



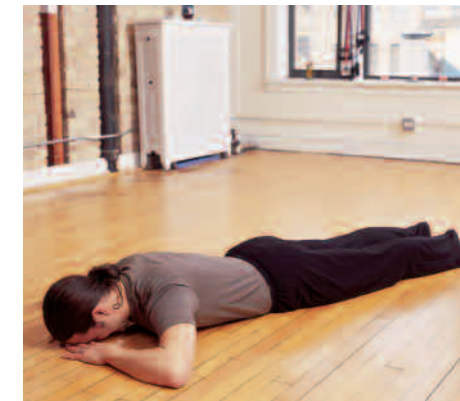
## mermaid >

Sit cross-legged or in a chair with feet on floor (if hip flexors are too tight to sit tall comfortably). Raise the right arm up to the ceiling, resisting scapular elevation. Inhale deeply to bend the spine and reach the arm to the left, palm down. Turn head to left and look down. Maintain length on left side. Both ischial tuberosities should remain bolted to the seat/floor while right side of the body stretches, ribs spreading and underarm lengthening. Exhale slowly and focus your intentions on the right internal obliques lifting the spine back to straight. Repeat on other side.  
**Benefits:** Spinal flexibility, increased lung capacity, stretches obliques, quadratus lumborum, latissimus, and scapular depressors, develops support in sidebending movements.



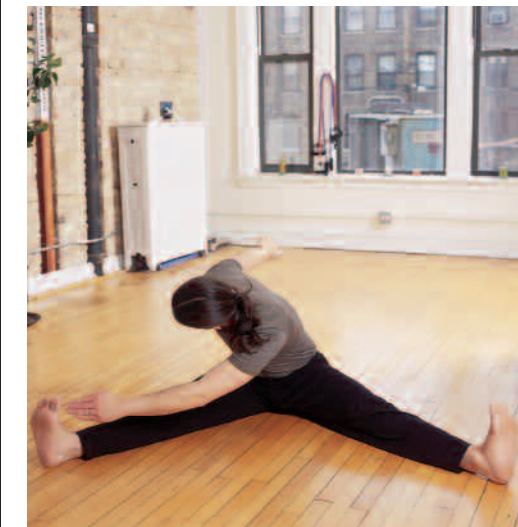
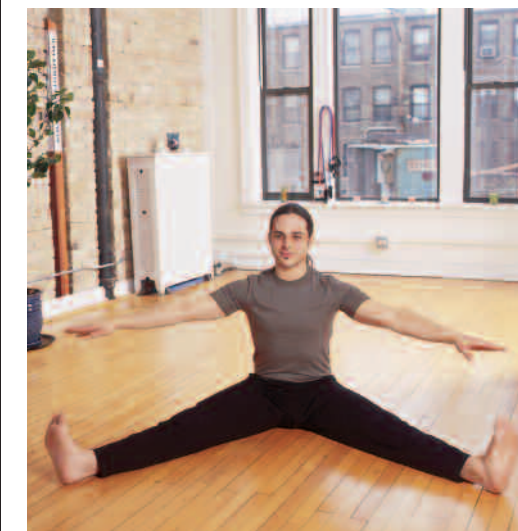
## swimming prep √

Lie prone, rest forehead on your hands, fingertips touching and palms to floor. Exhale deeply to draw the lower belly off the floor, using the transverse abdominals to maintain the length of the lumbar spine. Inhale to depress scapulae and lift the upper spine and legs 2 to 4 inches. Keep the hands glued to the forehead and the navel lifting up into the body. Visualize lengthening the spine; reaching the crown of the head across the room and stretching the thigh bones out of the hip sockets. Keep the legs very straight and release all unnecessary tension. Exhale to stretch the entire body back to the floor. Relax completely. Note that the low back should remain fairly relaxed. If you feel it engaging, release the buttocks and focus on the length of the body rather than the height.  
**Benefits:** Develops thoracic extension, stretches hip flexors (rectus femoris and iliopsoas), and strengthens scapular retractors and depressors, erector spinae, and hamstrings.



## saw √

This movement incorporates rotation with flexion. Start seated with legs extended, and spread to a comfortable width, shoulders over the pelvis. Feet are flexed and arms extended. Inhale, lengthen the spine and expand the floating ribs towards the back wall. Exhale to rotate the spine, and stretch forward and downwards. The ischial bones remain anchored to the floor. Reach the right little finger toward the left little toe. The back arm medially rotates and reaches back with the palm pressing up toward the ceiling. Look at the back hand. Spiral the spine and exhale completely. Inhale to fill the lungs and articulate your spine to the upright starting position. Exhale to repeat on other side.  
**Benefits:** Wonderful spine stretch and overall trunk strengthener and lengthener. Develops support for movements involving rotation.  
**Modifications:** Slightly bend knees or sit on folded towels to ensure a fully erect spine and differentiation between the femurs and pelvis.



# yoga postures

(for massage therapists)

Photos by Chip Williams

After practicing the seated Pilates exercises, move to your hands and knees to transition into a few yoga postures. Square your body so that your hands are under your shoulders and your knees are under hips. Curl your toes under and lift into downward facing dog. "It's not pushing from the upper body," cautions Mellencamp. "It's about sinking into the earth and pulling energy up and extending it out." She suggests following the sequence shown in the photos at the right.



## downward facing dog

Root your hands and your feet by extending the heels down and forward into the palms, fingers wide, and distribute your weight equally front to back and side to side. Spiral the shoulder blades down and move the chest toward the thighs. Allow your head to release toward the earth. Engage your core to keep yourself stable.

**Benefits:** Opens the hips and shoulders, stretches the back and strengthens the core.

## mountain pose

Stand with your feet about 4 to 6 inches apart. Don't lock knees, don't grip your toes. Expand the space of your feet so you are standing directly in the center. A good way to practice is to rock forward and back on your feet to find your center of balance. Lift up through the pelvic floor and keep the natural curve of your spine. Lift through the thighs. Extend through the pelvic area. Drop your shoulders away from your ears. The upper body is effortless. Focus on your breath. As you inhale the breath moves from the earth up your spine; as you exhale your breath is moving back down into the earth. On the exhale, feel the energy move through your body and out of your hands. This practice develops the consciousness that your hands are an extension of your whole body. Hold this position through three to five breath cycles.

**Benefits:** For massage therapists, grounding from the earth is as important as the breath.



## < warrior one

Place one foot forward, and bend the knee about 90 degrees with the knee aligned over the toe. The other foot is about 3 feet back on a 30 degree angle. Adjust the width of your legs so that you can balance onto both feet equally. The pelvis is facing forward and the femur is spiraling forward. Press into the back leg while you push energetically forward. Lift up through the pelvis and spiral through it. Arms are lifted with the shoulder blades and pulled down through the scapula. Hold the position through three to five breaths cycles; switch sides.

**Benefits:** Explores the use of oppositional energies and develops core strength.



## < warrior two

Legs are about hips width apart, one foot faces forward, the other is on a 30 degree angle. Front knee is bent about 90 degrees. The front leg is open so the knee is moving toward the toe pushing through the inner thighs, pulling up from the inner thigh. Avoid squeezing the buttock muscles, roll the hips underneath you, which lifts the core engaging the lower abdominals. Extend the arms horizontally from the shoulders, palms face down. Avoid lifting shoulders so you're not creating tension in the cervical spine. Stay connected to your center while you reach your fingers out beyond the limits of your skin. Hold the position through three to five breaths; switch sides.

**Benefits:** Develops endurance, steadies the mind, and opens the pelvis to enable more breath into the belly.

## child's pose

A good ending position is this pose of the child. It's all about relaxation and breathing deep. Seated on your knees, fold your body forward as your head touches the floor. Arms may be extended gently forward with the palms down or placed behind you with palms face up. Let yourself melt into the earth, releasing any muscular effort. Breathe deeply and feel the air fill your back. Relax in this position through three to five breaths cycles.

**Benefits:** Enables deep relaxation and breathing into the back of the body. Releases the lumbar spine.

JoAnn Milivojevic is a Chicago-based freelance writer who teaches fitness classes, and practices what she preaches. She writes frequently about health and fitness subjects. She can be contacted at JoAnnMil@comcast.net.

