

▶▶ 15 minute



# abs workout



Joan Pagano







>> **15 minute**

# abs workout

Joan Pagano





London, New York, Melbourne, Munich, and Delhi

**In memory of my father**

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DVD produced for Dorling Kindersley by  
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**Gaffer** Jonathan Spencer  
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First American Edition, 2009

Published in  
the United States by  
DK Publishing  
375 Hudson Street  
New York,  
New York 10014

09 10 11 10 9 8 7 6 5 4 3 2 1

AD407—January 09

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Published in Great Britain by Dorling Kindersley Limited.

A catalog record for this book is available from the Library of Congress.

ISBN 978-0-7566-4203-7

DK books are available at special discounts when purchased in bulk for sales promotions, premiums, fund-raising, or educational use. For details, contact: DK Publishing Special Markets, 375 Hudson Street, New York, New York 10014 or [SpecialSales@dk.com](mailto:SpecialSales@dk.com).

**Health warning**

All participants in fitness activities must assume the responsibility for their own actions and safety. If you have any health problems or medical conditions, consult with your doctor before undertaking any of the activities set out in this book. The information contained in this book cannot replace sound judgment and good decision making, which can help reduce the risk of injury.

Printed and bound in China by Sheck Wah Tong  
Printing Press Ltd.

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# author foreword



**Throughout my career** of 21 years in fitness, my clients have shared a wide variety of intimate issues with me regarding their health and well-being, and, naturally, their appearance, too. A personal fitness training session is highly individualized and very confidential, inviting people to feel free to discuss their most important concerns about their bodies.

**In these private conversations,** I've learned that my clients above all want to be healthy and stay in shape. A fit body is a common goal, and if I had to name the most challenging area of the body, I would say definitely it is the midsection. People of all ages—from 15 to 95 years old—have asked me countless questions about how they can reshape the abdominal region. Women rank protruding bellies, expanding waistlines, and flabby abs as three top trouble spots. Men want to know how to lose their love handles and sculpt the ultimate six-pack.

**It is very rewarding for both my clients** and me when they achieve the results that come from following a dedicated, structured exercise routine. The exercises I've chosen for this book target your midsection from every angle, using a variety of positions to give you the best results, both aesthetically and functionally. As you tighten your waist and tone your tummy with these exercises, you will enjoy other benefits as well. When you



strengthen these muscles, you firm up, giving definition to your torso. You also develop core strength, which improves your posture, creates support for the lower back, and relieves upper-back and neck pain. A strong core provides stamina, stability, and power in your everyday activities. You look and feel better.

**Doing the routines as suggested** in this book will tone your abs and strengthen your core. To get even better results, supplement these workouts with regular cardio activity. Cardio exercise will enhance your body's sculpting effect by reducing the layer of fat that covers your muscles to reveal a more defined shape underneath. Do at least 30 minutes of cardio activity—like walking, jogging, stair climbing, cycling, or swimming—five days a week. You don't have to do it all at once: You can do it in 10- or 15-minute increments. Just be sure to squeeze it in.

**And, of course, be mindful** of eating a healthy diet every day.

Best of luck in your training program,

A handwritten signature in black ink that reads "Joan Pagano". The signature is written in a cursive, flowing style. The background behind the signature is a light green rectangular area.

# >> how to use this book

This book focuses on abdominal exercises to strengthen and firm your torso, flatten your belly, and stretch out the muscles for a long, lean line. The step-by-step photographs offer clear instructions for each exercise, while the gatefolds provide an easy reference for each routine.

The accompanying DVD demonstrates all four sequences. As you watch the DVD, page references to the book flash up on the screen. Refer to these for more detailed instruction. In the book, some of the exercises have a starting position, shown in the inset, and the large photographs show the exercise. Annotations give you tips on proper positioning and white dotted-line “feel-it-here” circles help you focus on specific areas of the body where you should be able to feel the muscle working.

Each 15-minute program begins with a three-minute warm-up sequence, which gradually builds in intensity. The main workout consists of 10 minutes of exercises that work the core muscles of the abdomen and spine. Stretches are interspersed to lengthen the muscles and provide a restorative moment. The two-minute cool-down at the end of each routine provides a more complete stretch.

The routines are geared to a beginning level of fitness, although Core Challenge requires more strength and skill. If you are new to exercise, gradually build up to this routine. The introductory spreads, FAQs, and general information at the end of the book also offer advice for beginners.

Do the routines 3 to 4 times a week. You can do multiple routines in one day, but must allow a day of rest before repeating them. The recovery time is just as important to the development of the muscle as the exertion. For maximum results, do 30 minutes of moderate cardio activity (swimming, walking, or cycling) along with your ab routines.

## Safety issues

Before you begin any exercise program, check that it is safe for you. You will find the Physical Activity Readiness Questionnaire (PAR-Q), devised by the Canadian Society for Exercise Physiology on p117. Complete this first to see if you need to get clearance from your doctor.

## core basics at a glance



**Gatefold A** quick glance at the gatefold summaries at the end of each section provides a reminder of sequence and proper form.

>> floor bridge/diamond crunch

>> floor torso twist/reverse crunch



**13 Bridge** Return to neutral position and begin with a Pelvic tilt (inset). Then inhale, exhale, and, starting at the base of your spine, peel your back off the floor, one vertebra at a time, until your torso forms a straight line from knees to shoulders. Incline as you release down, rolling through the curve in your low back. Repeat 5 times.



**15 Torso twist** Return to neutral position, hands behind head, and bring your legs together, knees and feet touching. Reset your abs. Slowly rotate your pelvis to one side, moving your knees halfway to the floor (inset). Inhale, then exhale and crunch up toward the ceiling 10 times. Relax your knees to the floor and rest in a Spinal twist, turning the head in the opposite direction, then repeat to the other side.



**14 Diamond crunch** Lie with your knees out to the sides, soles of your feet together, as close to your body as possible. Connect your ribs to your hips, then rest your head in your hands and tighten your abs. Exhale as you lift your shoulder blades (inset). Extend your arms toward your feet, crunching up higher. Return hands behind your head, release down, and repeat 6 times.



**16 Reverse crunch** Come into 90-90, legs raised with right angles at hips and knees, and arms resting by your sides, palms up (inset). Inhale, then exhale and pull your belly button in toward your spine, drawing your pelvis toward your rib cage, and lifting your hips. Use control to keep from swinging your legs with momentum. Repeat a total of 10 times.



annotations provide extra cues, tips, and insights

>> crunch

crunch >>

**Step-by-step pages** The inset photograph at the upper left corner gives you the starting position for the exercise, when necessary. The large photographs give you the steps required to complete it.

the gatefold shows all the exercises in the program



## >> **focus** on the belly

Walk into any art museum to view the paintings and sculptures, and what do you notice? Women have bellies—it's a fact of nature. There are many factors influencing the size and shape of your belly, but one thing is certain: A healthy lifestyle has a positive effect in every case.

Genetics determine your physical framework, including where you will carry body fat (apple or pear shape). All healthy people have fat reserves necessary for proper functioning of their bodies. Fat tends to accumulate in specific areas, and your personal genetics dictate where you will carry yours. Visceral fat found deep in the abdomen (apple) increases your risk of heart disease, but responds rapidly to diet and exercise (see FAQs, pp112–113).

Differences between the sexes can also play a role. Women typically have a higher percentage of body fat compared to men. This is designed to store the energy needed to nourish a fetus and then a baby. Structurally, a woman's pelvis is tilted a little more forward than a man's so that during pregnancy, there is less pressure on the organs since some of the baby's weight is carried by the abdominal muscles. This anterior tilt of the pelvis gives the impression that the lower belly is slightly pushed out, creating a "pot belly."

Age-related changes occur that affect the shape of our midsection over time. "Middle-aged spread" and "spare tires" typically occur after childbearing as we approach the menopausal years. With advancing age, postural changes can cause spinal curves to become more exaggerated and push the belly forward.

Many other factors may come into play: Weight gain and stress both influence the size of the belly; repeated pregnancies can affect muscle and skin tone; abdominal surgeries can cause a loss of

### >> **exercise for** a smaller belly

- **If your abs are toned** but have a layer of belly fat over them, add 30 minutes of cardio most days of the week to burn calories and reduce fat.
- **If you do not have excess belly fat**, but lack of muscle tone causes your belly to hang, you should concentrate on the abs routines to firm up.
- **If you are both** lacking muscle tone and carrying excess fat, step up both cardio (as above) and abs routines. Begin with the Crunch routine.

muscle strength, scar tissue, and an accumulation of fluids. Exercise can help improve many of these.

Before you begin, it is helpful to assess your individual issues and focus on the changes that you can make. Then establish a starting point for your program (see Crunch Assessment, pp14–15, Deep Abs Assessment, pp16–17, and Risk Assessment, pp116–117). Set realistic goals and measure your progress periodically.

**So many factors** influence the size and shape of your belly, including genetic predisposition, age, and lifestyle habits (physical activity and diet).



# >> the anatomy of your abs

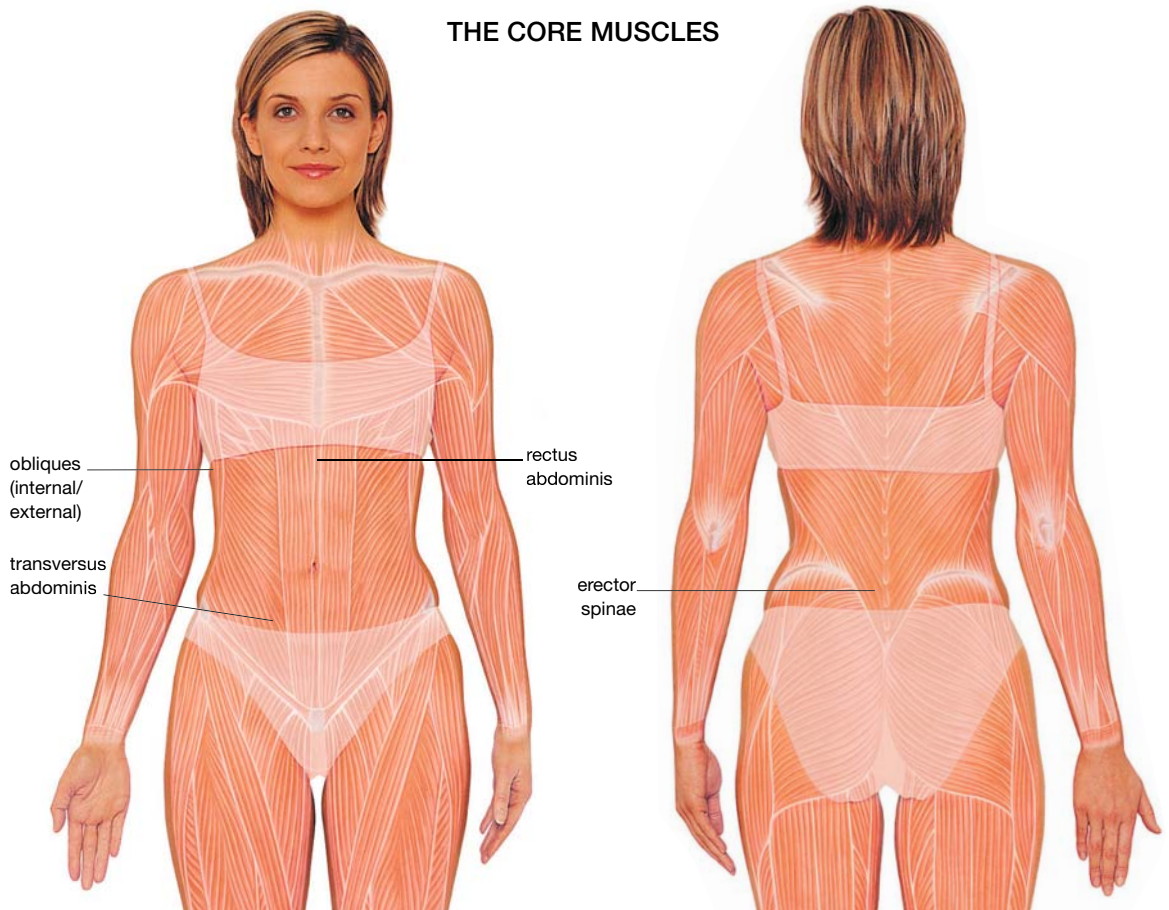
The core region of the body is very complex and technically consists of the collective muscles that control your trunk. The abdominals are central to the core region and work in concert with the erector spinae muscles of the spine to provide stability to the torso.

The abdominals are comprised of four muscle groups: the rectus abdominis, the internal and external obliques, and the transversus abdominis. They are layered, overlapping, and connected to

each other. They run vertically, diagonally, and horizontally, and often function synergistically.

The rectus abdominis is best known as the coveted “six-pack” muscle, which describes the

## THE CORE MUSCLES



sections that develop when this muscle is toned. It is the most superficial muscle of the abdomen, running vertically from the sternum to the pubic bone. It functions to flex the spine and stabilize the pelvis as you walk.

The internal/external obliques are found on the sides of the core area and perform multiple functions. When they contract on one side of the body, they rotate the trunk (as in the Side crunch, p25), and laterally flex the body (as in the Side plank, p79). When they contract on both sides of the body simultaneously, they assist in flexing the spine and compressing the abdomen (as in the Pelvic tilt, p23).

When it is toned, the transversus abdominis acts as a natural girdle, flattening the abdomen and supporting the lower back. It runs horizontally

around your midsection and is the deepest abdominal muscle. This muscle works with the internal/external obliques to stabilize the pelvis in a neutral position, as in the 90–90 exercise (p72).

The erector spinae—the spinal extensors—run the length of the spine. Back extensions trigger this group (as in the Back extensions using the beach ball, p55), strengthening the muscles for greater trunk support. In plank positions (p99), the erector spinae functions with the abdominals to stabilize the torso in the horizontal position.

Like any muscle group, the core muscles require 24 to 48 hours' recovery time between workouts. Although they are primarily endurance muscles, which recover quickly from an abundance of work, they still need time to rest, recover, and rebuild. The result will be added strength.

## TARGETING CORE MUSCLES

Do your Abs workouts 3 to 4 times a week on nonconsecutive days. Each routine gives you a balanced workout for the abs and spinal muscles. You can do

multiple workouts on any given day, but must allow a day of rest before repeating them. The table below shows you which specific muscles are worked by each exercise.

CRUNCH	BEACH BALL	CORE BASICS	CORE CHALLENGE
<p><b>Rectus abdominis</b></p> <p>Short crunch Neutral crunch Long crunch Diamond crunch Reverse crunch 90–90 crunch Crunch &amp; dip Bicycle</p> <p><b>Transversus abdominis</b></p> <p>Pelvic tilt Crunch &amp; dip</p> <p><b>Obliques</b></p> <p>Side crunch Torso twist Bicycle</p> <p><b>Erector spinae</b></p> <p>Arm &amp; leg lift Press-up</p>	<p><b>Rectus abdominis</b></p> <p>Roll back &amp; lift Pullover crunch Reverse crunch combo</p> <p><b>Transversus abdominis</b></p> <p>Reverse crunch combo Toe tap Ball transfer</p> <p><b>Obliques</b></p> <p>Side twist Side reach Trunk twist Balancing side crunch</p> <p><b>Erector spinae</b></p> <p>Forearm plank Back extension</p>	<p><b>Rectus abdominis</b></p> <p>Roll-back</p> <p><b>Transversus abdominis</b></p> <p>Pelvic tilt Straight leg lowering 90–90 Alternating kicks Double leg lowering</p> <p><b>Obliques</b></p> <p>Knee drop Spiral ab twist Twisting roll-back Side plank</p> <p><b>Erector spinae</b></p> <p>Kneeling lift Forearm plank</p>	<p><b>Rectus abdominis</b></p> <p>Double crunch Crunch &amp; extend Kneeling crunch</p> <p><b>Transversus abdominis</b></p> <p>Tuck &amp; roll Crunch &amp; extend Dead bug Toe dip</p> <p><b>Obliques</b></p> <p>Tuck &amp; roll Kneeling twist Kneeling crunch Twisting side plank Balance &amp; crunch</p> <p><b>Erector spinae</b></p> <p>Kneeling crunch Plank with leg lift Lat push</p>

# >> crunch assessment

The crunch is the classic abs exercise, targeting the rectus abdominis muscle that runs from the sternum to the pubic bone. It is a versatile exercise, suitable for beginners or more advanced exercisers. It also ranks as one of the most effective for strengthening the abdomen.

The function of the rectus muscle is to flex the spine, and in the crunch you do not perform more than 30° of spinal flexion (which refers to how high you lift your upper torso off the floor), even if you can raise your torso higher. This range of motion isolates the muscle, keeping the work in the rectus. If you lift higher, as in a full sit-up, for example, you activate other muscles, primarily the hip flexors in the front of the thigh. In addition to being a more effective isolation exercise than the full sit-up, the crunch places less stress on the lower back, and is therefore safer.

It is useful to have an objective measure of your starting level of abdominal fitness. Along with your

health and medical information, a fitness assessment helps define your goals in an exercise program. Establishing a baseline also enables you to measure your improvement. One way to measure muscular fitness is to count how many repetitions you can perform. Do the crunch test as described below. Write down your results, make a note of the date, and after two months of training, repeat the assessment.

To get the most from your workout, use proper form and execution of the crunch. Concentrate on perfecting the technique and apply it to each repetition. Mental focus also enhances the outcome: Think about feeling the abdominal muscle tightening, strength coming from the core center, lifting from the chest, head relaxed in your hands.



### Neutral crunch

Count how many neutral crunches you can do consecutively without resting. Remember, this is not a full sit-up. Lift your shoulders no higher than 30° off the mat.

#### Your score

Excellent	50 or more
Good	35–49 reps
Fair	20–34 reps
Poor	fewer than 20 reps

### Preparation for the crunch

Make a cradle for your head by spreading your fingertips and supporting the base of your skull (see p15, top right). Bend your fingers slightly and let the weight of your head rest in your hands. Keep your chin lifted, as if you were holding an orange under it (measure the distance with your fist, as in the photograph on p15, top left). Keep your elbows wide to reduce any tendency to pull on your neck.

With your lower back relaxed in neutral alignment, engage the rectus abdominis by tightening the connection between the ribs and the hips. Keep tension in the muscle as you lift your chest to the ceiling, shoulder blades clearing the floor. Maintain the tension as you lower your





**Fist under chin**  
Use your fist under your chin to gauge the correct alignment of the head. Always think: "Chin up."



**Position of hands on head** Spread your fingers at the base of your skull to create a cradle for holding your head. Remember to relax your neck in your hands.

shoulder blades to the floor, and without resting at the bottom, immediately repeat the lift. Keep drawing the ribs to the pelvis—think of "scooping" out the abdomen. Learn to breathe while you are drawing in, holding tension in the muscle: Inhale first, then exhale as you lift up. Use slow, controlled movements and work the entire range of motion. It's quality not quantity that counts!

The weight of your head and upper torso provide resistance in the crunch. You can increase the intensity by

slowing the action, adding holds (as in the Long crunch, p24, and the Diamond crunch, p26), or by adding external resistance. In the Beach Ball workout, for instance, a simple unweighted ball will do just fine; but you can increase the resistance for muscle strengthening by using a weighted ball of 3–4 pounds (1.4–1.8kg)—my favorite are filled with gel. Although there are heavier balls available, it is better to use one of this weight and maintain proper form, being careful not to use momentum in the movements.

**Connecting ribs to hips** Set your abs before you move. Think of connecting the ribs to the hips. Maintain this connection, drawing ribs to pelvis, while you perform crunches.



## >> deep abs assessment

The deepest abdominal, the transversus abdominis, is a flat, horizontal band of muscle that encircles the waist front to back. Toning it creates a natural corsetlike effect of narrowing the waist, flattening the abdomen, and supporting the lower back.

The transversus abdominis plays a significant role in core strength. It functions to stabilize the pelvis and maintain the small curve in the lower back, which affects your posture and alignment in all positions against gravity, whether you are stationary or moving. In fitness training, sports activities, and everyday life, a stable core provides stability for the trunk, which increases the control of the movement you are performing.

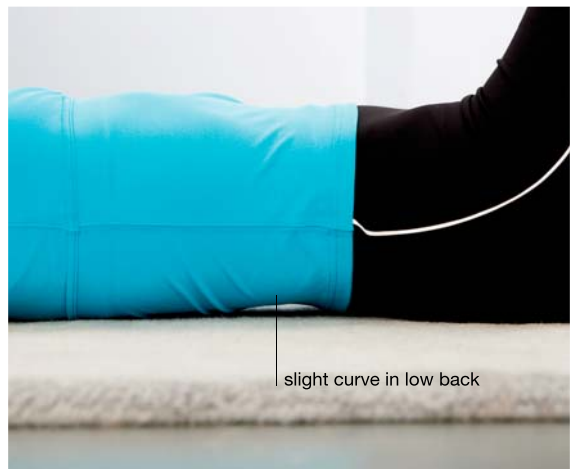
A few simple exercises can help you to develop body awareness of your deep abdominals. Belly breathing is key here, because the transversus abdominis functions (along with the obliques) to compress the abdomen when you exhale. Practice

a belly breath: Inhale, fill the belly with air, then exhale forcefully by pulling the abdominals tight (think “belly button to spine”) and push the air out.

Next, find your own neutral spine alignment, the place where your spine rests while preserving all its natural curves. You should have a slight curve in the lower back—with just enough space to slip your hand in if you are standing straight with your back against a wall. It may be more difficult to establish the neutral position when lying down, but it is halfway between a full arch and a flat-back position. The correct alignment of the lower back, neither flattened nor arched, will allow you to recruit your core muscles most effectively.



**Belly breaths** Place your hands on your belly to feel the action of the abdominals as they expand to take the air in (inset) and compress to push the air out.



**“Neutral spine alignment”** refers to the resting position of the spine with all its natural curves in place. The lower back retains its slight curve and is neither arched nor flattened.

## >> tips for **core training**

- **Warm up the pelvis** Do 10 Pelvic tilts with belly breaths to rehearse the breathing, practice abdominal compression, and move the pelvis in a controlled way.
- **Active stabilization** Do a strong Pelvic tilt and then release halfway, keeping the abdominals engaged, lower back relaxed. With the pelvis stabilized like this, breathe naturally.
- **Monitor the position of the pelvis** Place your fingers under your sacrum to make sure it stays level.

The Pelvic tilt can be used as a technique to learn how to actively stabilize the pelvis in neutral spine alignment. Do a Pelvic tilt (see p23) combining a belly breath with a slight rotation of the pelvis: Inhale, expand the belly as you take in the air; exhale, compress the abdomen, and press the lower back to the floor. Now, keep your abdominals tight and release the Pelvic tilt halfway. Relax the lower back, allowing the slight natural curve. The abdominals should remain taut or stiff to the touch.

To assess the strength of the transversus abdominis, we challenge its ability to stabilize the pelvis against the changing resistance of various leg movements. There are three levels of difficulty, as shown on the right. All variations are performed lying on your back, with your arms resting to the sides, palms up, to minimize any assistance from the upper body. As you add the leg movements, use your abs to keep your lower back from arching and your hips from rocking side to side. A good way to monitor how you are doing is to place your fingers under your pelvis and feel the two bumps on either side of your sacrum just below your waist. As you raise and lower your legs, make sure that the pelvis stays level, exerting even pressure on your fingers, and doesn't lift up on either side.

## Assessing the strength of the **transversus abdominis**



**Beginner level** Engage the abs, lift one leg at a time, keeping the right angle at the knee, then lower the leg back to the floor. Alternate sides for 10 reps.

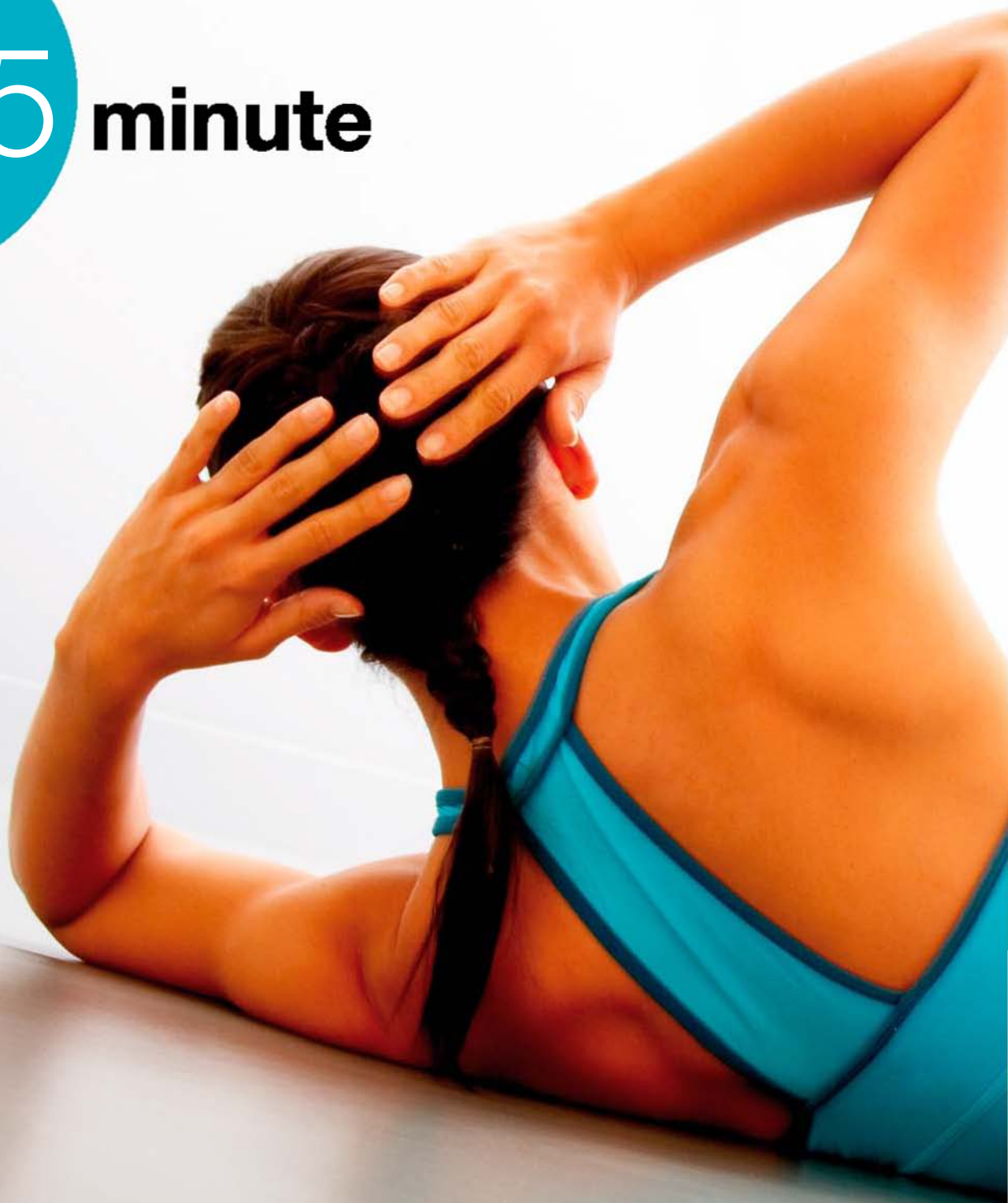


**Intermediate level** Come into 90–90, one leg at a time, right angles at hips and knees, lower back in neutral alignment. Hold this position for 30 seconds or more.



**Advanced level** From 90–90, straighten both legs to the ceiling and lower them toward the floor, as far as you can without arching the low back.

**15** minute



# crunch routine >>

Shape up with the classic crunch, one of the most effective ab exercises



# >> warm-up march in place/step-touch in



- 1 March in place** With feet parallel, knees soft, arms by your sides, begin marching. Add the arms, lifting them up, then back down. Turn your palms up on the lift, down on the release. March for 16 reps (1 rep = both sides).

turn palms down as you lower arms

keep knee low



- 2 Step-touch in** Step one leg to the side, arms by your sides. Step the other leg in, touching your feet together, bending your elbows to that side, and swinging your hands to shoulder height. Repeat, moving from side to side, for 8 reps.

bend elbows, fists to shoulder height

shift weight side to side



## >> warm-up toe-tap out/twisting knee lift



**3 Toe-tap out** Step your feet apart, arms by your sides. Swing both arms to one side at shoulder height, coming up on the toes of the opposite foot. Circle your arms down to the other side and reach out with the tapping leg. Repeat, alternating sides, for 8 reps.



**4 Twisting knee lift** With legs apart, raise the arms sideways to shoulder height. Bend your elbows to 90°, palms forward. Keeping the back straight, bend one knee to hip height. Rotate your torso, bringing the opposite elbow toward the raised knee. Repeat, alternating sides for 8 reps.



>> **warm-up** hamstring curl/body sway

**5 Hamstring curl**  
With your legs wider, reach your arms to the sides at shoulder level, palms down. Bend one knee behind and reach for your foot with the opposite hand, raising the other arm up on a diagonal. Repeat, alternating sides for 8 reps.

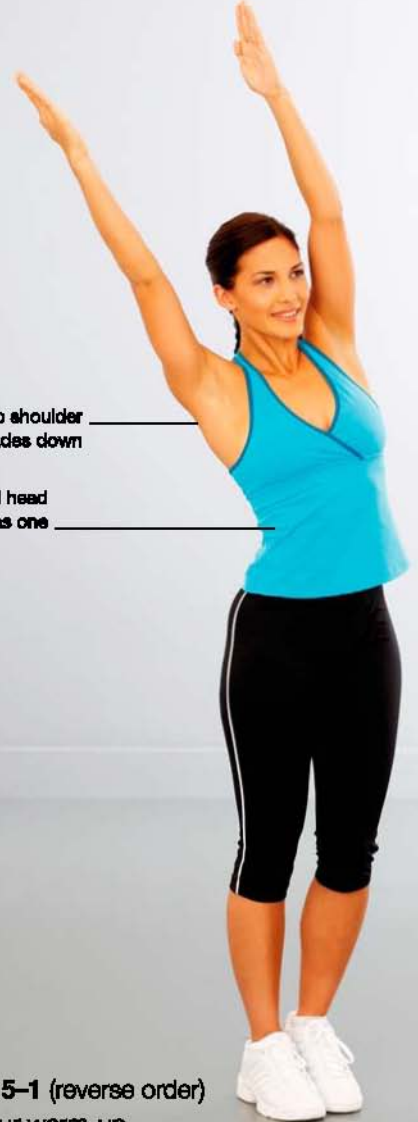
stretch the fingers



**6 Body sway** With legs apart and arms raised, step one leg in, flexing at the waist, and head centered between your arms. Repeat, alternating sides for 8 reps.

keep shoulder blades down

torso and head move as one



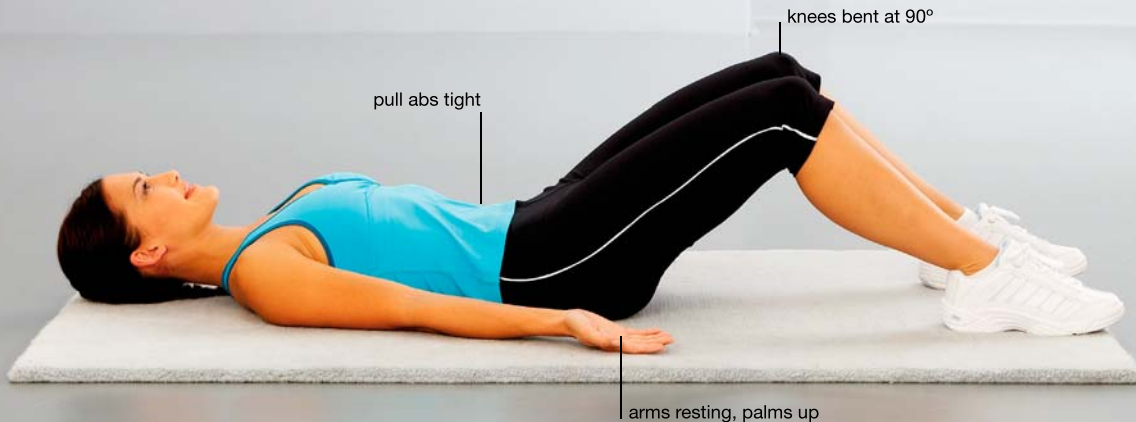
**Repeat Steps 5–1 (reverse order) to complete your warm-up.**



# >> floor pelvic tilt/short crunch



**7 Pelvic tilt** Lie on your back in neutral position with knees bent at 90°, feet flat on the floor, and arms by your sides, palms up. Inhale, filling your belly with air (inset). Then exhale forcefully, pulling your abdominals in tight, and with one fluid motion, flatten your lower back to the floor. Hold for a moment, then release and repeat 10 times.



**8 Short crunch** From neutral position, move your feet in close to your buttocks, connect the ribs to the hips, then place your hands behind your head (inset). Inhale first, then exhale, scooping out your abdomen, belly button to spine, as you lift your shoulder blades 30° off the floor. Release, slowly lowering your shoulders (but not your head) to the floor. Repeat 10 times.



## >> floor neutral crunch/long crunch

**9 Neutral crunch** Move your feet forward to neutral position. Tighten your abdomen by drawing your ribs toward your pelvis. Pick up the pace and continue to lift and lower your shoulders rhythmically, exhaling as you lift and inhaling as you release, maintaining tension in your abs throughout the movement. Repeat 10 times.



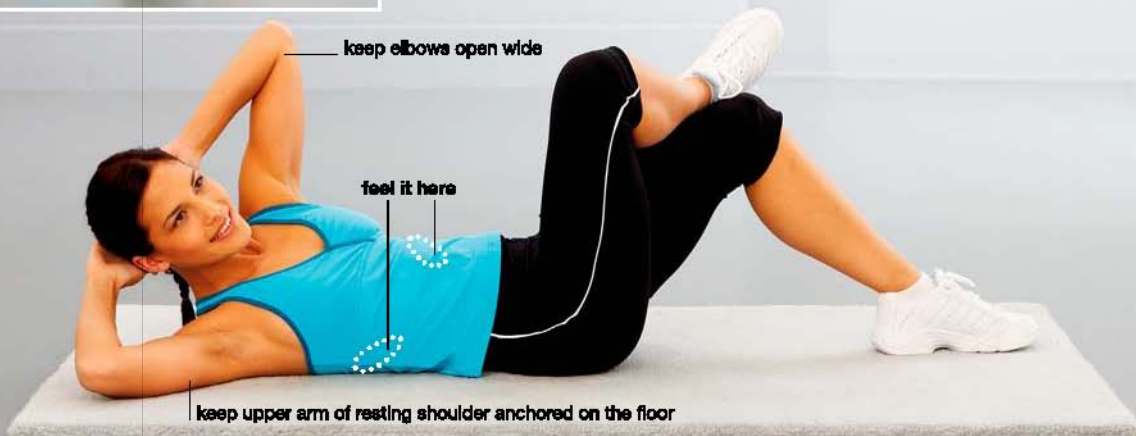
**10 Long crunch** Extend your legs, keeping a slight bend in your knees. Inhale first, then exhale and pull *in* when you crunch *up*. Add a hold at the top of the movement and release slowly. Learn to keep tension in the muscle while you continue to breathe. Repeat 10 times, then stretch out, arms and legs long.



## >> **floor** side crunch/lengthening stretch



**11 Side crunch** From neutral position, cross one ankle over the opposite knee, hands behind your head (inset). With elbows wide, inhale, then exhale and twist one shoulder toward the opposite knee. Pause, then slowly release without resting your head on the floor. Repeat 5 times on each side.



**12 Lengthening stretch** Reach out long, extending your arms and legs. Take a deep breath in and stretch out as far as you can. Cross one ankle over the other and take the wrist on the same side in your other hand. Pull to the opposite side, stretching out the entire side of your torso. Pause, then change sides and repeat.



## >> floor bridge/diamond crunch



**13 Bridge** Return to neutral position and begin with a Pelvic tilt (inset). Then inhale, exhale, and, starting at the base of your spine, peel your back off the floor, one vertebra at a time, until your torso forms a straight line from knees to shoulders. Inhale as you release down, rolling through the curve in your lower back. Repeat 5 times.

torso aligned from shoulders to knees



**14 Diamond crunch** Lie with your knees out to the sides, soles of your feet together, as close to your body as possible. Connect your ribs to your hips, then rest your head in your hands and tighten your abs. Exhale as you lift your shoulder blades (inset). Extend your arms toward your feet, crunching up higher. Return hands behind your head, release down, and repeat 6 times.

crunch higher as you reach



## >> floor torso twist/reverse crunch



**15 Torso twist** Return to neutral position, hands behind head, and bring your legs together, knees and feet touching. Reset your abs. Slowly rotate your pelvis to one side, moving your knees halfway to the floor (inset). Inhale, then exhale and crunch up toward the ceiling 10 times. Relax your knees to the floor and rest in a Spinal twist (see p48), turning the head in the opposite direction, then repeat to the other side.



**16 Reverse crunch** Come into 90-90, legs raised with right angles at hips and knees, and arms resting by your sides, palms up (inset). Inhale, then exhale and pull your belly button in toward your spine, drawing your pelvis toward your rib cage, and lifting your hips. Use control to keep from swinging your legs with momentum. Repeat a total of 10 times.



# >> floor 90–90 crunch/crunch & dip



**17 90–90 crunch** Still in 90–90, place your hands behind your head and tighten the connection between your ribs and your hips (inset). Exhale as you lift your shoulder blades, eyes on the ceiling, chin lifted. Repeat 10 times. When you have finished, hug your knees into your chest and rest.



**18 Crunch & dip** Resume 90–90 with your hands behind your head, exhale, and do an upper torso crunch (inset). Hold it while you inhale and dip your toes to the mat. Exhale and return legs to 90–90, then inhale and release the crunch. Repeat 10 times, then hug your knees into your chest for a breather.



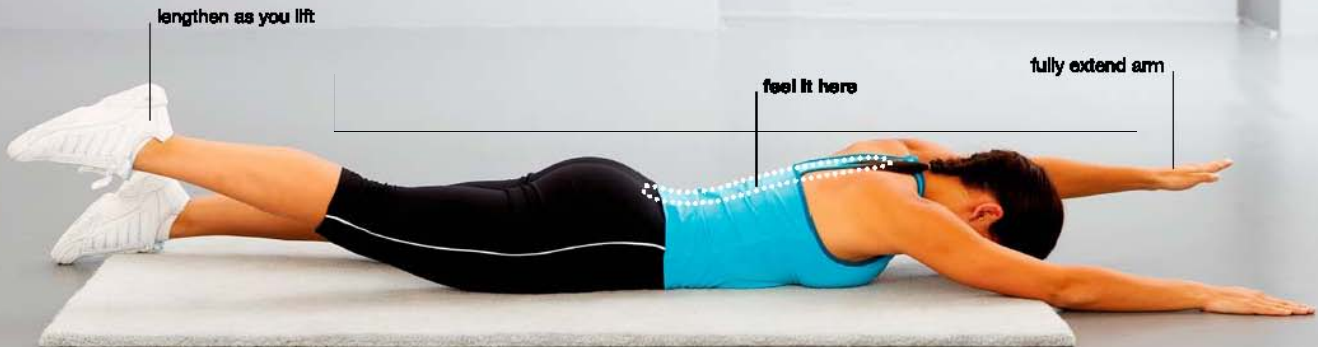
## >> floor bicycle/arm & leg lift



**19 Bicycle** Return to 90–90, hands behind your head. Start with an upper torso crunch (inset), then exhale as you twist one elbow to the opposite knee, bringing your knee into your chest and extending your other leg toward the floor. Inhale back to center and go to the other side. Alternate sides for 5 reps, keeping your shoulder blades lifted. Reach out long to stretch.

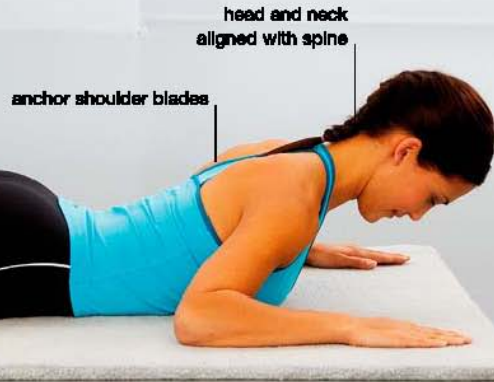


**20 Arm & leg lift** Lying face down, extend your arms, palms down. Scoop out your abdomen and press your pubic bone into the floor (inset). With your forehead still resting, exhale and lift one arm and the opposite leg, lengthening the limbs as you lift up. Repeat for 5 reps.



>> **floor** press-up/sphinx

**21 Press-up** Lie face down, arms bent in the shape of a "W," forearms resting on the floor, palms down (inset). Squeeze your shoulder blades down and together. Lengthen through your torso, reaching the top of your head forward. Exhale as you lift your head and shoulders off the floor without using any strength from your arms. Keep your nose down. Repeat 8 times.



**22 Sphinx** Lying face down, elbows bent with forearms resting on the mat, anchor your shoulder blades as you lift your chest, sliding your elbows forward until they are directly under your shoulders. Pull your ribs away from your hips, stretching your abdomen (inset). With your shoulders square to the front, turn your head to one side and hold; then to the other.





## >> floor child's pose/spinal curve



**23** **Child's pose** Sit back on your heels and bend forward, forehead reaching to mat, arms stretching center (Inset). Walk your hands to one side, keeping your head centered between your elbows, then to the other side. Use your breath to deepen the stretch: let your body sink into the position with every exhale.

head centered between elbows



**24** **Spinal curve** Kneel on all fours, wrists under shoulders, knees under hips (Inset). From neutral, lift your head and hips up, curving your spine into a "C."

lift hips up

lift head up



>> **floor** spinal arch/ear tilt

25

**Spinal arch** Now arch your spine, rounding your back up to the ceiling by tucking your hips under and dropping your head between your arms. Repeat each curve and arch 4 times, breathing naturally throughout.



26

**Ear tilt** Sit up tall, hips firmly planted on the floor, legs crossed comfortably in front. Anchor your shoulder blades. Tilt your ear to your shoulder, using your hand on the side of your head to gently deepen the stretch, while you reach down with your other hand to create a dynamic opposition. Hold and breathe.



# >> floor chin tilt/shoulder roll

pull top of head down \_\_\_\_\_

turn chin to armpit

**27** **Chin tilt** From the previous position, turn your chin to your armpit and place your hand on the crown of your head using gentle downward pressure. Feel a slight shift in the muscles being targeted, now in the back of your neck and upper back. Hold, breathe, and then switch sides, repeating both stretches.



roll shoulders  
backward

**28** **Shoulder roll** Initiate the movement from your shoulder blades. First shrug them up toward your ears (inset), then roll them back and together. Then separate the blades as your shoulders come forward and repeat once more. Rolling your shoulders backward will leave your chest open.



A woman with dark hair in a braid is lying on her back on a light-colored floor. She is wearing a teal sports bra. Her hands are clasped behind her head, and she is lifting her head and shoulders off the floor. The background is a plain, light-colored wall.

**crunch**



# crunch at a glance

1



▲ Warm-up March in place, page 20

2



▲ Warm-up Step-touch in, page 20

3



▲ Warm-up Toe-tap out, page 21

4



▲ Warm-up Twisting knee lift, page 21

17



▲ Floor 90-90 crunch, page 28

19



▲ Floor Bicycle, page 29

18



▲ Floor Crunch & dip, page 28

20



▲ Floor Arm & leg lift, page 28



▲ **Warm-up**  
Hamstring curl, page 22



▲ **Warm-up**  
Body sway, page 22



▲ **Floor**  
Pelvic tilt, page 23



▲ **Floor**  
Short crunch, page 23



▲ **Floor**  
Press-up, page 30



page 29



▲ **Floor**  
Sphinx, page 30



▲ **Floor**  
Neutral  
crunch,  
page 24



▲ **Floor**  
Side crunch,  
page 25



▲ **Floor**  
Long crunch, page 24



▲ **Floor**  
Lengthening stretch, page 25



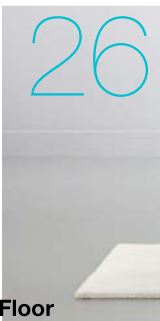
▲ **Floor**  
Child's pose,  
page 31



▲ **Floor**  
Spinal arch, page 32



▲ **Floor**  
Spinal curve, page 31



▲ **Floor**  
Ear tilt, page 32



▲ **Floor**  
Bridge,  
page 26



▲ **Floor**  
Torso twist,  
page 27



▲ **Floor**  
Diamond crunch, page 26



▲ **Floor**  
Reverse crunch, page 27



▲ **Floor**  
Chin tilt, page 33



▲ **Floor**  
Shoulder roll, page 33





15 minute **summary**

# >> crunch FAQs

Proper form and technique are essential to performing a classic crunch. To get the most out of each one, learn the correct form and use it with every repetition. Concentrate on your breathing, alignment, and pacing. Focus on keeping your abdomen taut and your ribs connected to your hips throughout the entire set.

## >> **I can't get the breathing right. How do you know when to inhale and exhale?**

In all resistance exercises, you exhale on the exertion or when you lift the weight against gravity. In crunches, this is when you lift your upper body off the floor. Think, "Inhale first, then exhale and move." If you are a beginner and can't yet keep everything in mind, just remember to breathe. Once you've learned the form, you can focus on the breathing.

## >> **My belly pops out when I do a crunch. How can I learn to "scoop"?**

Practice doing Roll-backs (p75) first. It is easier to "scoop" the abdomen in a seated position than when you are lifting your upper body off the floor. Next, practice "belly breaths" on the floor: inhale, fill the belly with air; exhale forcefully, pulling the abs tight. Now apply the same breathing pattern to crunches, drawing the abdomen in as you lift your shoulder blades up.

## >> **Should I press my lower back to the floor?**

When you lift your shoulder blades or hips in an abdominal exercise, it's normal to feel your lower back connect to the floor, but you shouldn't purposely press your back down. The back should remain in "neutral spine alignment," with the small natural curve in the lower back.

## >> **I'm feeling strain in my neck. Do you have any suggestions to help?**

Before you move, create a band of support in the abdomen by connecting the ribs and the hips. Cradle your head in your hands, chin up. Mentally and physically relax the neck. Concentrate on feeling the strength from your core center as you lift your chest off the floor. Your head should rest in your hands and remain aligned with your spine.

## >> **Isn't it better to do a full sit-up than a crunch?**

>> The crunch isolates the abdominal muscles more effectively than a full sit-up, which also activates the hip flexors in the front of the thigh as you come to a sitting position. In the crunch, limit the range of motion to 30° of spinal flexion (even if you can come up higher) in order to keep the work in the abdominals. The crunch is also a safer alternative if you have tight hip flexors and/or lower-back pain. A sit-up can exacerbate both of these conditions.

## >> **My friend does hundreds of crunches every day. How many should I be doing?**

Quality is more important than quantity. Two or three sets of 20 reps is enough to condition the abs. The routines in this book vary the exercises to target the same muscle from different positions, instead of repeating sets. This style of training provides additional stimulation to the muscles as opposed to performing multiple repetitions of the same exercise.

## >> **If I work quickly, I can do more crunches in less time. Isn't this better?**

No. The most effective way to get results is to do the exercises more slowly, with controlled form. You need to work the muscles through their full range of motion. Working quickly in a shallow range of motion does not fully develop the muscle. The exercises should be paced according to the instructions and performed with concentration.

**15** minute





# beach ball routine >>

The ball adds fun and  
resistance, giving new energy  
to traditional exercises

# >> warm-up march in place/step-touch in



- 1 March in place** With feet parallel, knees soft, and arms by your sides, begin marching. Add the arms, lifting them up, with palms up, then down, with palms down. March for 16 reps (1 rep = both sides).



- 2 Step-touch in** Step one leg to the side, arms by your sides. Step the other leg in, touching your feet together, bending your elbows to that side, and swinging your hands to shoulder height. Repeat, moving from side to side, for 8 reps.



## >> warm-up toe-tap out/twisting knee lift



**3 Toe-tap out** Step your feet apart, arms by your sides. Swing both arms to one side at shoulder height, coming up on the toes of the opposite foot. Circle your arms down to the other side and reach out with the tapping leg. Repeat, alternating sides for 8 reps.



**4 Twisting knee lift** With legs apart, raise the arms sideways to shoulder height. Bend your elbows to 90°, palms forward. Keeping the back straight, bend one knee to hip height. Rotate your torso, bringing the opposite elbow toward the raised knee. Repeat, alternating sides for 8 reps.



# >> warm-up hamstring curl/body sway



**5 Hamstring curl**  
Take your legs wider and reach your arms out to the sides at shoulder level, palms down. Bend one knee behind and reach for your foot with the opposite hand, raising the other arm up on a diagonal. Repeat, alternating sides for 8 reps.



**6 Body sway** With legs apart and arms raised, step one leg in and flex at the waist. Keep your head centered between your arms. Repeat, alternating sides for a total of 8 reps.



**Repeat Steps 5-1**  
(reverse order) to complete your warm-up.



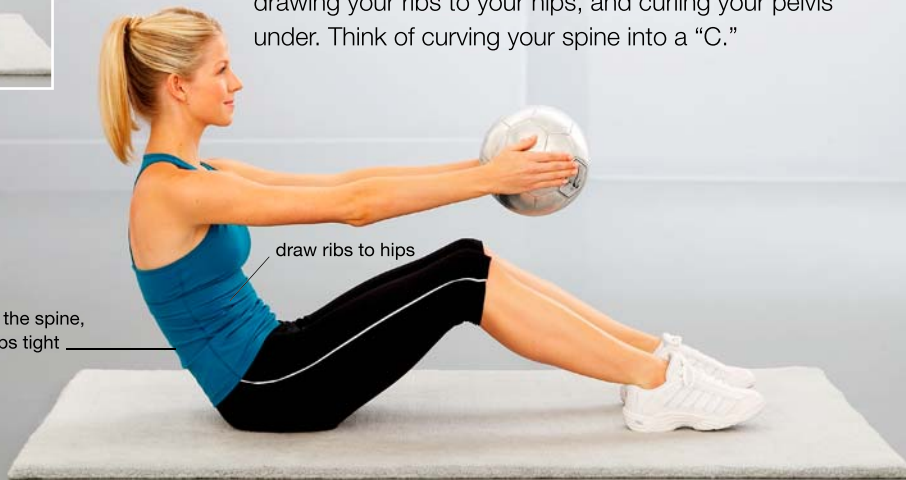
## >> floor roll-back & lift



**7a** **Roll-back & lift** Sit tall, knees bent at 90°, hip-width apart, feet flat on the mat. Hold the ball in front of your chest, arms extended. With your spine straight, pull your torso as close to your thighs as you can (inset). Inhale, then exhale as you roll back, drawing your ribs to your hips, and curling your pelvis under. Think of curving your spine into a “C.”

curve the spine,  
pull abs tight

draw ribs to hips



**7b** Hold the position as you lift the ball overhead, then lower it and realign your spine to straighten up. Repeat 10 times.

keep shoulder  
blades down as  
you lift ball up



## >> floor side twist/spinal twist

8

**Side twist** Sit up with your knees bent at 90°, feet relaxed. Hold the ball close to your body, elbows bent. Lean back with your spine straight, chest lifted (inset). Rotate your torso to one side and touch the ball to the floor. Then pause at center before repeating to the other side. Repeat for 10 reps.

keep back straight

touch ball  
to floor

9

**Spinal twist** Roll down to the floor, keeping your knees bent, and set the ball aside. Stretch your arms out at shoulder level, with your palms facing up, and rotate your knees to one side in a Spinal twist. Turn your head the opposite way. Hold for a moment, then change sides.

turn head away  
from knees

knees and  
feet stacked

stretch arms out, palms up

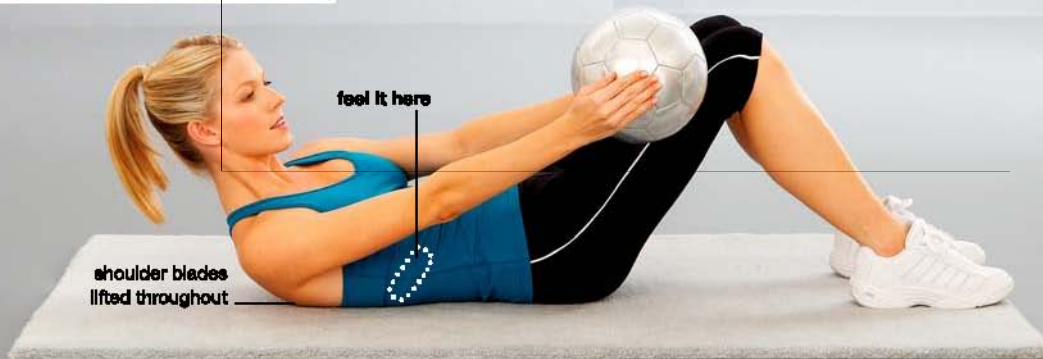
## >> floor pullover crunch/side reach



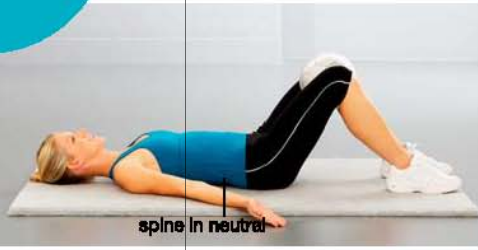
**10 Pullover crunch** Lie on your back in neutral position, knees bent at 90°, and feet flat on the floor. Hold the ball diagonally overhead with your shoulder blades anchored (inset). Inhale, then exhale, keep your abs tight, and lift your torso, reaching the ball to your knees. Release back without resting and repeat 10 times. Then rest and rock your head from side to side.



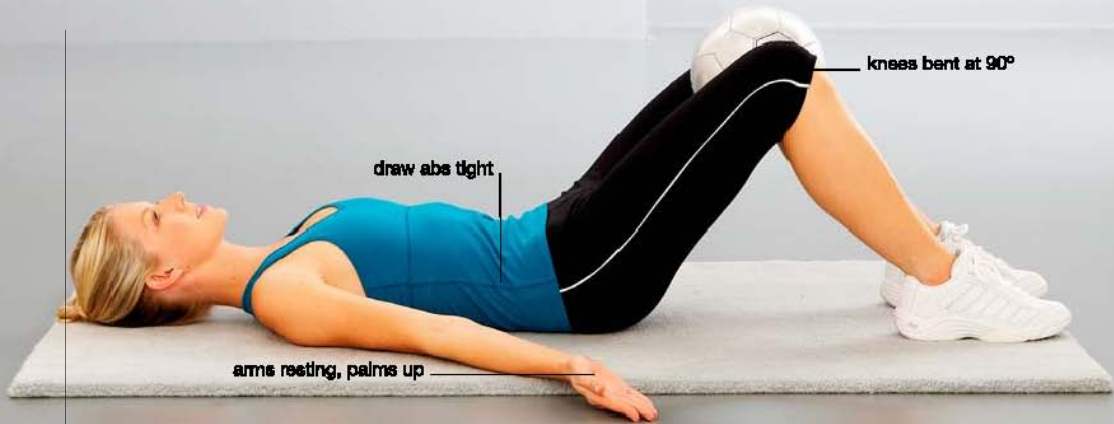
**11 Side reach** Lie on your back in the neutral position. Hold the ball toward your knees, arms straight (inset). Inhale, then exhale and lift your shoulder blades, reaching the ball to one side. Hold. Pass through center to the other side. Repeat for 8 reps, alternating sides. Finally, extend your legs and reach your arms long, with the ball behind your head. Rock your head from side to side to ease any tension in the neck.



## >> floor reverse crunch combo



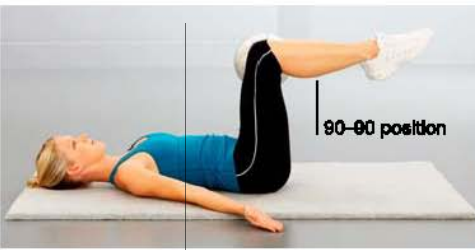
**12a** **Reverse crunch combo** Place the ball between your knees and come into neutral position, arms by your sides, palms up (inset). To initiate the Bridge, perform a Pelvic tilt (see p23).



**12b** Complete the Bridge by lifting your hips until they form a straight line connecting your knees to your shoulders. Release, rolling down sequentially through your spine.



## >> floor reverse crunch combo/trunk twist



**12c** Then immediately initiate the Reverse crunch by raising your legs to 90-90, knees over hips, calves parallel to the floor (inset). Repeat the Pelvic tilt, compressing your abdomen and lifting your hips off the floor in a slow controlled movement. Continue, alternating the Bridge and Reverse crunch for 8 reps (1 rep = Bridge/Reverse crunch).



**13 Trunk twist** From neutral position, bring your legs together, knees and ankles touching. Reach the ball toward the ceiling over your chest (inset). Lower your knees to one side while you reach the ball to the other. Keep your knees and feet stacked as you rotate your pelvis. Repeat for 8 reps, alternating sides. Now set the ball down and do a Spinal twist (see Step 9) to each side.

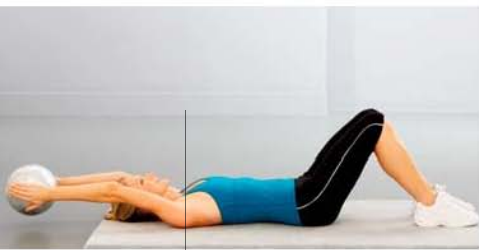


## >> floor toe tap/ball transfer



14

**Toe tap** Hold the ball above your chest, arms straight, and take your legs to 90–90. Contract your abs to bring your spine into neutral (inset). Inhale, lowering the ball behind your head as you lower one leg to the floor, maintaining the right angle at the knee. Tap your toes lightly without resting and exhale to return to the starting position. Alternate sides for 6 reps.



15a

**Ball transfer** In neutral position, hold the ball behind your head, shoulder blades down. Engage your abdominals to stabilize your upper pelvis against the floor (inset). Inhale first, then, keeping your head and shoulders on the floor, exhale and raise your arms and legs to place the ball between your knees.

head and  
shoulders resting

legs at 90–90



## >> **floor** ball transfer/balancing side crunch

**15b** Inhale, lowering your arms and feet toward the floor without arching your back. Tap toes down, then exhale as you lift your limbs again to grasp the ball in your hands and return to the starting position. This is 1 rep. Repeat Steps 15a and 15b for a total of 5 reps, then stretch out long, holding the ball behind your head (see end of Step 11).



**16** **Balancing side crunch** In neutral position, place the ball under one foot and extend the other leg (inset). With the hands behind the head and the elbows wide, exhale and lift the shoulder blade, twisting that shoulder toward the knee as the working leg bends to meet the elbow. Do this 10 times. Change sides and repeat.



## >> floor sphinx/forearm plank

- 17 Sphinx** Turn onto your stomach and draw your shoulder blades down and together. Lift your chest, position your elbows directly under your shoulders, and hold the ball between your hands. Reach the top of your head toward the ceiling while you breathe into the stretch, lengthening through the torso.



- 18 Forearm plank** From the Sphinx, with your shoulders anchored and still holding the ball, scoop out your abs and lift your hips, making a straight line from shoulder to knee. Keep your shoulder blades wide and apart, head and neck aligned with your spine. To increase the intensity of the exercise, tuck your toes under and lift your knees.





## >> **floor** child's pose/back extension



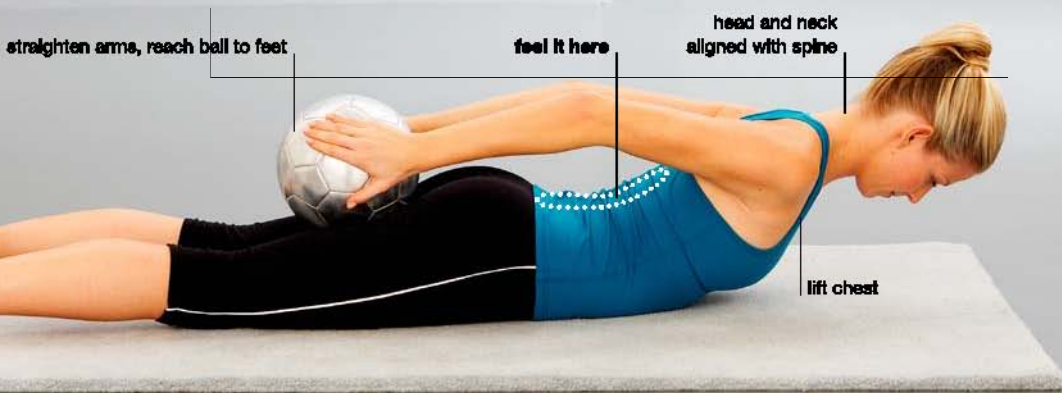
**19** **Child's pose** Bend your knees and reach back with your hips, curving your spine until your buttocks rest on your heels. At the same time, straighten your arms to the front, reaching the ball forward, and lower your forehead toward the floor (inset). Then roll the ball to one side, and still reaching with it, hold the stretch. Repeat to the other side.



keep reaching for the ball



**20** **Back extension** Holding the ball with both hands, slide forward onto your stomach, legs hip-width apart. Move the ball to your lower back, holding it with fingers pointing back, elbows bent to the ceiling (inset). Rest your forehead on the mat. Inhale, then exhale, lift your chest and straighten your arms, pressing the ball down your back. Inhale and bend your arms to return. Repeat 10 times.



straighten arms, reach ball to feet

feel it here

head and neck aligned with spine

lift chest

# >> floor bridge stretch/lower-back stretch

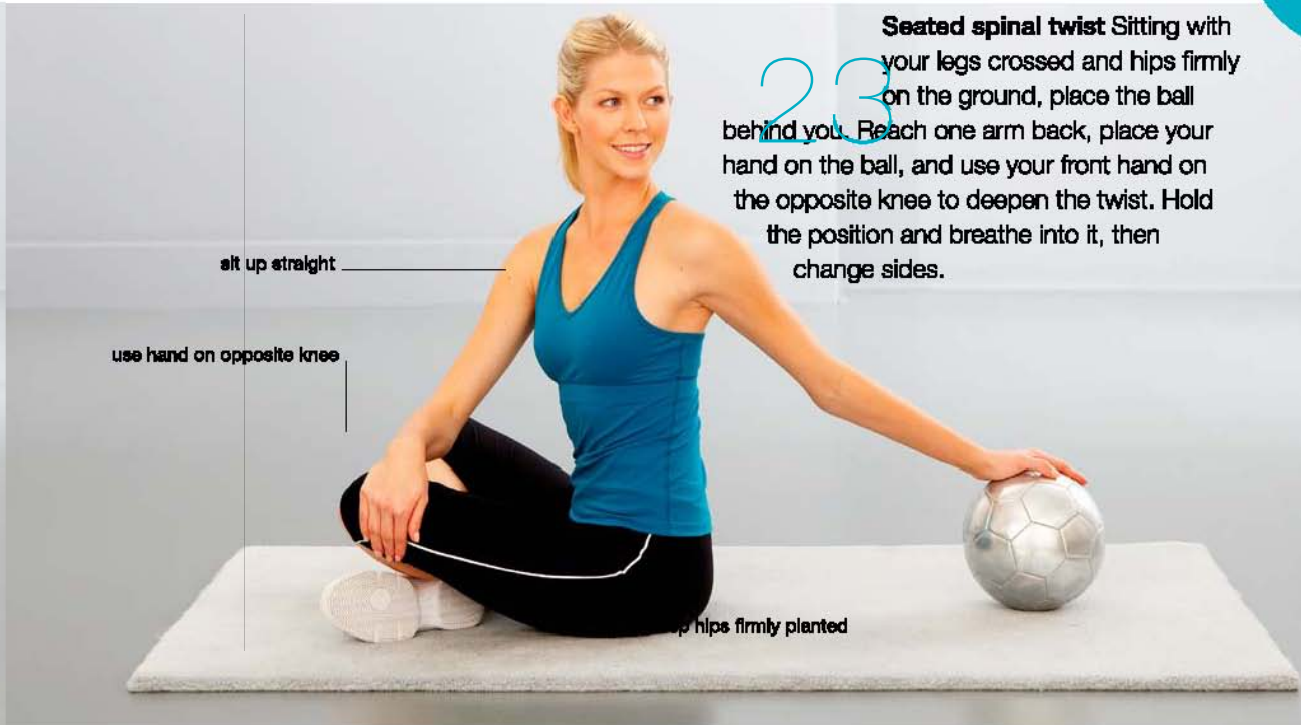
**21** **Bridge stretch** Turn onto your back, knees bent, feet on the floor. Lift your hips and place the ball under your sacrum, allowing it to support your body weight. Inhale, and on the exhale feel the lower back relax. Hold the ball with your hands, if necessary. Take several deep breaths.



**22** **Lower-back stretch** From the Bridge stretch, bring one knee up over your chest and then the other. Separate the knees, still allowing the ball to support you. Continue to hold onto the ball or turn your palms up and rest your arms by your sides. With every exhale, let your body weight sink into the ball. To come out of the stretch, hold onto the ball and lower one leg at a time.



# >> floor seated spinal twist/forward bend



**2.3 Seated spinal twist** Sitting with your legs crossed and hips firmly on the ground, place the ball behind you. Reach one arm back, place your hand on the ball, and use your front hand on the opposite knee to deepen the twist. Hold the position and breathe into it, then change sides.



**2.4 Forward bend** Return to center and bring the ball to the front. With your sitbones anchored on the floor, bend forward, rounding your spine, and reaching the ball to the front with your arms straight. Breathe into the stretch (inset). Then roll the ball to one side, torso facing your knee, and hold. Repeat on the other side and return to center.



**beach ball**



# beach ball at a glance



▲ **Warm-up** March in place, page 44



▲ **Warm-up** Step-touch in, page 44



▲ **Warm-up** Toe-tap out, page 45



▲ **Warm-up** Twisting knee lift, page 45



▲ **Floor** Toe tap, page 52



▲ **Floor** Ball transfer, pages 52 and 53



▲ **Floor** Ball transfer, pages 52 and 53



▲ **Floor** Balancing side



▲ **Warm-up**  
Hamstring curl, page 46



▲ **Warm-up**  
Body sway, page 46



▲ **Floor**  
Roll-back & lift,  
page 47



▲ **Floor**  
Roll-back & lift, page 47



▲ **Floor**  
Side crunch, page 53



▲ **Floor**  
Sphinx, page 54



▲ **Floor**  
Forearm plank, page 54





▲ **Floor**  
Side twist,  
page 48



▲ **Floor**  
Pullover  
crunch,  
page 49



▲ **Floor**  
Spinal twist, page 48



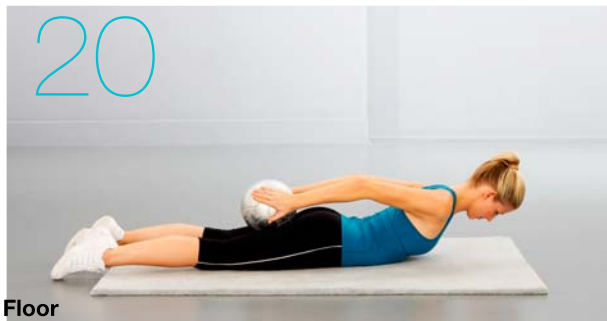
▲ **Floor**  
Side reach, page 49



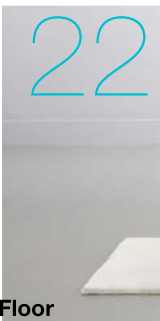
▲ **Floor**  
Child's pose,  
page 55



▲ **Floor**  
Bridge stretch,  
page 56,



▲ **Floor**  
Back extension, page 55



▲ **Floor**  
Lower-back stre



▲ **Floor**  
Reverse  
crunch  
combo,  
pages 50  
and 51



▲ **Floor**  
Reverse  
crunch  
combo,  
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▲ **Floor** Reverse crunch combo, pages 50 and 51



▲ **Floor**  
Trunk twist, page 51



▲ **Floor**  
Seated spinal  
twist,  
page 57



stretch, page 56



▲ **Floor**  
Forward bend, page 57





15 minute **summary**

## >> beach ball FAQs

As you become familiar with your ab routines, you'll naturally want to know how often and how hard you need to work to get the best results. You may wonder what you should expect to feel after a workout, when you can expect to see change, and when you should change the routine.

### >> **Can I do ab routines every day?**

The abs recover quickly from an abundance of training, but still need time to rest and rebuild. Like any muscle group, they require 24 to 48 hours' recovery time between workouts, so you should train them on nonconsecutive days, three to four days per week. For a little extra strengthening stimulus every day, engage your abs as you go about your daily routines (see pp122–123).

### >> **If I do these exercises faithfully, when will I begin to notice change?**

Doing these routines three to four times a week for four to eight weeks will strengthen and firm the muscles. For the sculpting effect to show, you also need to reduce your body fat to reveal the contours of the muscles underneath. You can shed the fat by regularly expending more calories than you consume: Incorporate at least 30 minutes of moderate cardio activity most (at least five) days of the week, and monitor your dietary intake.

### >> **How do I know when to change the routine?**

You should change the routine every four to eight weeks to continue to stimulate the muscles. If you've been sticking to just one of the routines, pick another one. If you've already been doing several, try changing the order in which you do them, to surprise the muscles. Or use different combinations of the routines on different days of the week.

## >> **I've been doing crunches for a while and no longer feel my abs working. They're not nearly as toned as I would like and I can't seem to fatigue them.**

If you're not feeling resistance when you perform crunches, you may be making mistakes in technique. You could be crunching too quickly or lifting from your neck and shoulders rather than from your torso. Be sure to contract your abs and connect the ribs to the hips before you lift your torso. Maintain the contraction as you lift and lower, keeping tension in the muscle during the entire set of repetitions.

## >> **The day after I do an abs class I'm really in pain. Should my abs be so sore?**

You are overdoing it if you are in pain the next day. You want to feel "muscle awareness," a slight feeling of muscle tenderness that means you targeted the muscles at the proper intensity. To reduce any delayed-onset muscle soreness, begin slowly—one routine every other day—and increase gradually.

## >> **Will crunches get rid of my ab flab?**

You can spot strengthen and shape a body area, but fat belongs to the whole body and needs to be reduced systemically, through expending more calories (cardio exercise and resistance training) than you consume. And that means following a healthy diet as well.


## >> **Am I burning calories when I do crunches?**

Yes, you burn calories whenever you exert yourself physically. However, the more lasting advantage of doing resistance exercises (like crunches) is that by strengthening the muscles you increase your lean-body mass. A lean body burns more calories at rest, so you are effectively raising your resting metabolic rate and burning more calories over the course of the day.



# 15 minute





Get in touch with your  
deep abdominals to  
flatten your belly

# **core basics** routine >>

# >> warm-up march in place/step-touch in

**1 March in place** With feet parallel, knees soft, and arms by your sides, begin marching. Add the arms, lifting them up, then back down. Turn your palms up on the lift, down on the release. March for 16 reps (1 rep = both sides).



turn palms down as you lower arms



keep knee low

**2 Step-touch in** Step one leg to the side, arms by your sides. Step the other leg in, touching your feet together, bending your elbows to that side, and swinging your hands to shoulder height. Repeat, moving from side to side, for 8 reps.



bend elbows, fists to shoulder height



shift weight side to side

## >> warm-up toe-tap out/twisting knee lift



**3 Toe-tap out** Step your feet apart, arms by your sides. Swing both arms to one side at shoulder height, coming up on the toes of the opposite foot. Circle your arms down to the other side and reach out with the tapping leg. Repeat, alternating sides for 8 reps.



**4 Twisting knee lift** With legs apart, raise the arms sideways to shoulder height. Bend elbows to 90°, palms forward. Keeping the back straight, bend one knee to hip height. Rotate your torso, bringing the opposite elbow toward the raised knee. Repeat, alternating sides for 8 reps.



# >> warm-up hamstring curl/body sway



**5 Hamstring curl**  
Take your legs wider and reach your arms sideways at shoulder level, palms down. Bend one knee behind you and reach for your foot with the opposite hand, raising the other arm up on a diagonal. Repeat, alternating sides for 8 reps.

stretch the fingers \_\_\_\_\_

reach hand  
to foot



**6 Body sway** With legs apart and arms raised, step one leg in, flexing at the waist and head centered between your arms. Repeat, alternating sides for 8 reps.

keep shoulder  
blades down

torso and head  
move as one



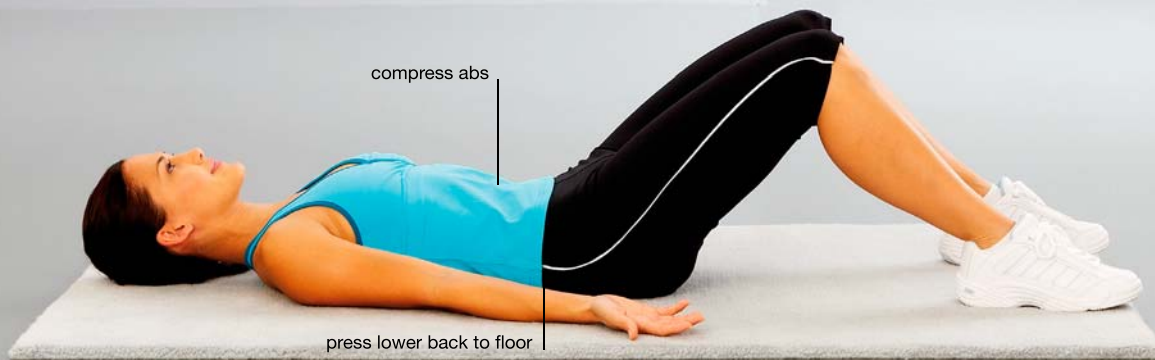
**Repeat Steps 5–1** (reverse order) to complete your warm-up.



# >> floor pelvic tilt/straight-leg lowering



**7 Pelvic tilt** Lie in neutral position, knees bent at 90°, hip-width apart, with feet flat on the floor. Rest your arms by your sides, palms up. Begin with a belly breath (inset), then exhale forcefully, compress your abdomen, and rotate your pelvis backward, pressing your lower back to the floor. Hold for a moment, then release. Repeat for 10 reps.



**8 Straight-leg lowering** In neutral position, do a strong Pelvic tilt and release halfway so your lower back goes into its natural curve. Keep your abs tight to stabilize your pelvis in this position. Extend one leg to the height of the other knee (inset). Inhale and slowly lower the leg toward the floor; exhale and return to start. Repeat 6 times, then change sides.



## >> floor 90–90/alternating kicks



9

**90–90** Begin in neutral position. Reposition the Pelvic tilt and release halfway, keeping your abs engaged. With your pelvis stabilized, bring one knee up over your hip (inset) and then the other, keeping your calves parallel to the floor. Hold this 90° angle at both the hip and the knee. You should feel strain in your lower abs.



10

**Alternating kicks** From 90–90, bring one knee in over your chest and straighten the other leg, lowering it as close to the floor as possible without arching your back. Pause, then return to the starting position and repeat, alternating legs for 5 reps. When you're done, hug your knees into your chest and rock from side to side.



## >> floor knee drop/spinal twist



**11 Knee drop** Come into 90–90, abs strong, pelvis stable, arms resting by your sides, and palms up. Press your knees and feet together (inset). Inhale as you rotate your pelvis to one side, lowering your knees halfway to the floor. Exhale and return to center. Continue, alternating sides, for 6 reps.



**12 Spinal twist** Bring your feet to the floor in neutral position, then rotate your knees to one side. Stretch your arms out to the sides at shoulder level, palms up. Rest, turning your head to the opposite side. Hold the position briefly and breathe, then change sides.



# >> floor double-leg lowering

bend legs at 90–90



extend legs to ceiling



## 13a

### Double-leg lowering

Return to 90–90, arms by your sides and palms up to keep your shoulders open (inset). Extend both legs to the ceiling and point your toes. Draw your abs in tight to stabilize the top of your pelvis against the floor, lower back in neutral position.

## 13b

Exhale as you lower both legs toward the floor, going as far as you can without arching your lower back. Keep pulling your abs in as you go. Inhale, bend your knees in, and return to start. Repeat 10 times. Hug your knees in to rest.

keep legs together

feel it here

lower legs without arching your back



## >> floor spiral ab twist/roll-back



**14 Spiral ab twist** Sit on one hip, legs bent to the other side, front foot aligned with the opposite knee. Plant your supporting hand on the ground in line with your shoulder and extend your other arm up on a diagonal. Look up at your hand. Inhale and press your raised arm back to stretch your torso (inset). Exhale, contract your abs, and curl the raised arm under the supporting arm. Repeat 8 times, then change sides and repeat 8 times.



**15 Roll-back** Sit up straight, knees bent at 90°, feet flat. Pull your torso in close to your thighs. Reach your arms forward at shoulder level, palms down (inset). Exhale, and take your belly button to your spine, as you roll back onto your tailbone. Inhale and realign your spine to straighten up. If you need help, use your hands on your thighs. Repeat for 4 reps.



## >> floor twisting roll-back/lengthening stretch



**16 Twisting roll-back** Add a twist! With your arms extended (inset), perform a roll-back, curving your spine into a "C." Then twist your torso to one side, bending your elbow, and pulling it back. Reach both arms forward to return to start. Repeat on the other side, alternating sides for 4 reps.

bend elbow back at shoulder level



**17 Lengthening stretch** Holding onto your thighs, roll down to the floor and extend your arms and legs. Take a deep breath in and stretch out as far as you can. Exhale and relax. Cross one ankle over the other and take the wrist on the same side in your other hand. Pull to the opposite side, creating a stretch down one side of your body. Repeat on the other side.

take wrist in hand and pull to the side



## >> floor kneeling lift/forearm plank



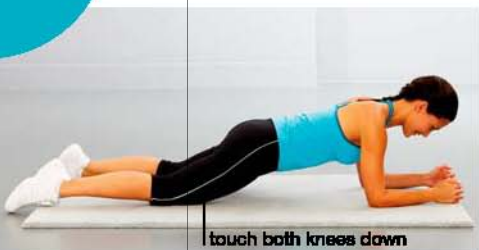
**18 Kneeling lift** Kneel on all fours, wrists under shoulders, knees under hips. Extend one leg to hip height, then lift the opposite arm to shoulder level. Stabilize the supporting arm by spreading your fingers and pushing into your thumb and index finger (inset). Hold, then lower and lift your limbs 6 times and hold again. Repeat on the other side.



**19 Forearm plank** From the kneeling position, take your hands forward and place your forearms on the floor, elbows directly under your shoulders. Take your knees back and drop your hips, creating a straight line from shoulder to knee. Pull your abs in tight, and anchor your shoulder blades (inset). Hold, then straighten your legs and come onto your toes in the full forearm plank position. Hold.



## >> floor forearm plank plus/child's pose



**20 Forearm plank plus** From the full plank, lower both knees simultaneously 4 times (inset). Then lower one knee at a time, alternating sides for 4 reps. If you are fatiguing, just try to hold the forearm plank from the knees. Breathe naturally throughout.



**21 Child's pose** Sit back into child's pose, with your hips to your heels and your forehead to the floor. Stretch your arms forward. Take a few seconds to rest in this position and refresh yourself. Breathe deeply, releasing tension from your muscles with every exhale.





## >> **floor** side plank/side plank with clam



# 22

**Side plank** Lie on your side, resting on your forearm, elbow beneath shoulder, legs bent behind you, top hand on your hip (inset). Contract your abs, exhale and lift your hips. Hold, then lower and lift for a total of 4 times. Lower to the floor without resting.



# 23

**Side plank with clam** Now add a “clam” to challenge your balance and stability. Open and close your top knee 4 times. Be sure to keep your rib cage lifted and the shoulder of your supporting arm down. Breathe naturally.



# >> floor side stretch/wide "v" stretch

**24** **Side stretch** Lower your hips to the floor and sit up. Separating your legs, bend your knees to the side and reach your opposite arm overhead, palm down. Stretch out the muscles that you just worked, especially the obliques, and then repeat Steps 22–24 on the other side.

keep shoulder blade down

weight on front hip



**25** **Wide "V" stretch** Sit tall and open your legs in a wide "V" (inset). Lean forward from your hips with your spine straight, and reach your arms to center. Keeping both hips planted evenly on the floor, lift your spine, then turn your torso to face one leg, and hold. Pass through center and repeat on the other side.

spine straight

hips firmly planted



# >> floor seated spinal twist/forward bend



**26 Seated spinal twist** Bring your legs together, extended in front of you, torso facing forward. Bend one leg in, knee to ceiling, and cross it over the other, extended leg. Reach the arm on the same side as the bent knee behind you, hand on the floor (inset), and twist your torso toward it, using the other arm on your knee to deepen the stretch. Hold, then switch sides.

use opposite arm on bent knee



**27 Forward bend** Turn your torso back to center. Straighten your spine, lift up and out of your lower back, and then reach your head forward. Relax over your knees, breathing deeply.

round over legs





**core basics**



# core basics at a glance

1



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2



▲ Warm-up Step-touch in, page 68

3



▲ Warm-up Toe-tap out, page 69

4



▲ Warm-up Twisting knee lift, page 69

16



▲ Floor Twisting roll-back, page 76

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▲ **Warm-up**  
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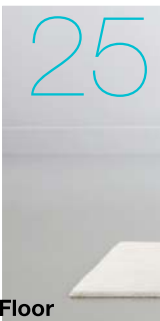
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Wide "V" stretch



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# 15 minute **summary**

# >> core basics FAQs

Core training has been making headlines recently, but what exactly is it and how does it differ from more traditional abdominal exercises?

This section addresses questions related to your core, why it is important to strengthen it, and the types of exercises that are most effective at targeting it.

## >> What exactly is core training?

Technically, core training focuses on developing and balancing the muscles in the anatomical center of the body—the core. Core training is an integrated approach to working the muscles of the torso and pelvis, and training them to function as a unit, instead of in isolation.

## >> Why is core training so important? How will I benefit differently from doing more traditional types of abdominal exercises, like crunches?

Core training engages the abs and spinal extensors to function as a team to provide support for the spine and maintain its proper alignment. Core exercises train the spine for stability in all positions against gravity—like in the Kneeling lift (p77) and Side plank with clam (p79). Crunches, on the other hand, are a weight-supported exercise that isolates one abdominal muscle, the rectus abdominis. It is less involved and, therefore, less physically demanding.

## >> Is anything wrong with the way we did exercises before core training emerged?

No. There are benefits to doing classic exercises that isolate a muscle as well as doing core exercises. The Side crunch (p25), for instance, works the obliques in isolation; whereas the Side twist using the ball (p48) recruits the muscles of the abdomen and the back to stabilize the spine while the obliques perform the twist. Doing different exercises will keep your routine fresh.

## >> **I've seen a lot of core-training routines in magazines that are based on yoga and Pilates. Are these the only ways to train the core?**

Both of these disciplines focus on using core strength, but the concepts are not limited to them. The routines in this book offer a unique blend of exercises to target the core, including some techniques from yoga and Pilates. Often, exercise techniques evolve and are used in more than one method of exercise. The blend of methods enhances the variety in your workout.

## >> **How do I know if I'm working my core? What should I be feeling?**

To get in touch with the deepest abdominals, do a few belly breaths (p16) with your hands on your lower abdomen. Feel the belly expand and contract, then return to neutral. When you are working the core, the belly is neither hollowed in nor pushed out. Your abs should feel taut or stiff to the touch, as if someone punched you in the belly and you reacted by tightening the muscles.

## >> **How do I know if I have a weak core?**

Your ability to stabilize your pelvis in neutral position is a good indicator of core strength. First, identify where neutral spine alignment is for your body; then see if you can maintain the proper alignment of the lower back against resistance (see pp16–17). If you have a weak core, you will notice that your pelvis will tip side to side or your lower back will arch off the floor.

## >> **How does core training affect the muscles in my arms and legs? Will it keep them in shape?**

Any exercise where you are supporting your body weight against gravity will provide resistance training for your arms and legs. These include all the plank and side plank variations, the Kneeling lift (p77), and Kneeling crunch (p99).

**15** minute





Challenge your core  
with this more  
advanced routine  
when you are ready

# core challenge routine >>

# >> warm-up march in place/step-touch in



- 1 March In place** With feet parallel, knees soft, and arms by your sides, begin marching. Add the arms, lifting them up with palms up, then down with palms down. March for 16 reps (1 rep = both sides).



- 2 Step-touch In** Step one leg to the side, arms by your sides. Step the other leg in, touching your feet together, bending your elbows to that side, and swinging your hands to shoulder height. Repeat, moving from side to side, for 8 reps.



## >> warm-up toe-tap out/twisting knee lift



**3 Toe-tap out** Step your feet apart, arms by your sides. Swing both arms to one side at shoulder height, coming up on the toes of the opposite foot. Circle your arms down to the other side and reach out with the tapping leg. Repeat, alternating sides for 8 reps.



**4 Twisting knee lift** With legs apart, raise the arms sideways to shoulder height. Bend your elbows to 90°, palms forward. Keeping the back straight, bend one knee to hip height. Rotate your torso, bringing the opposite elbow toward the raised knee. Repeat, alternating sides for 8 reps.



# >> warm-up hamstring curl/body sway



**5 Hamstring curl**  
Take your legs wider and reach your arms out to the sides at shoulder level, palms down. Bend one knee behind and reach for your foot with the opposite hand, raising the other arm up on a diagonal. Repeat, alternating sides for 8 reps.



**6 Body sway** With legs apart and arms raised, step one leg in and flex at the waist. Keep your head centered between your arms. Repeat, alternating sides for 8 reps.

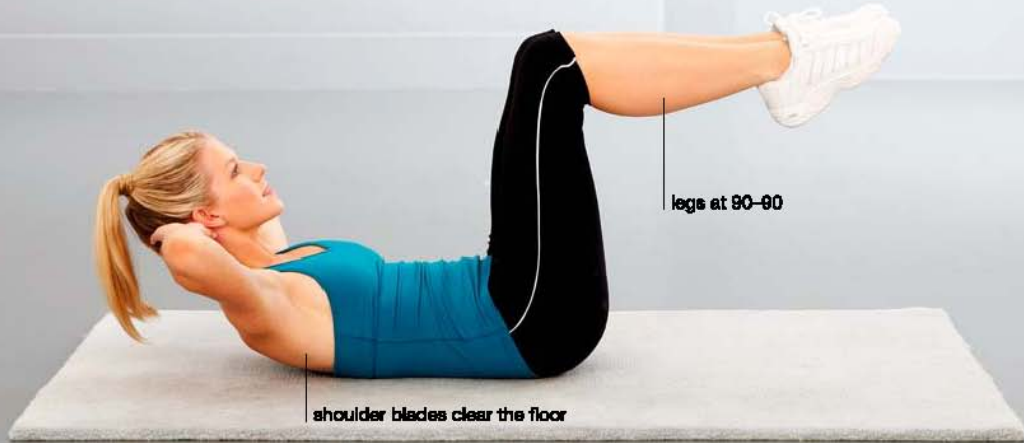


**Repeat Steps 5-1**  
(reverse order) to complete your warm-up.



## >> floor double crunch

**7a** **Double crunch** Raise one leg at a time to 90–90, knees above hips, calves parallel to the floor, and with a right angle at hips and knees (see p17). Place your unclasped hands behind your head. Exhale and lift the shoulder blades, keeping the abs tight.



**7b** Hold the position as you curl your hips. Release the hips and then the shoulders, without resting your head on the floor. Repeat 10 times, then hug your knees to stretch your back.



## >> floor tuck & roll/bridge



**8 Tuck & roll** Lying in 90–90, with legs together, arms by your sides and palms up, exhale, draw your abs in, then lower your legs and touch your heels lightly to the mat (inset). Inhale, return to start, then exhale and roll your hips to the side, lowering your knees halfway. Inhale and return. Repeat the ab tuck, heels to the floor, then roll to the other side. Continue alternating sides for a total of 3 reps (1 rep = tuck/roll/tuck/roll).



**9 Bridge** Begin in neutral position, knees bent at 90°, hip-width apart, feet flat, and arms by your sides, palms up (inset). Inhale, then exhale, press your lower back to the floor, and begin lifting your hips, peeling your back off the floor until your hips form a straight line with your knees and shoulders. Inhale and release down one vertebra at a time. Repeat 3 times.



# >> floor crunch & extend/dead bug



**10 Crunch & extend** Begin in 90-90, hands behind your head (inset). Exhale, lift your chest to bring your shoulder blades off the floor at the same time as you extend your legs to 45°, without arching your lower back. Inhale, and release back to start, keeping tension in your abs throughout. Repeat 5 times. Hug your knees to rest.



**11 Dead bug** Again, begin in 90-90, arms extended toward the ceiling, palms forward. Pull your abs tight, belly button to spine (inset). Exhale and lower your opposite arm and leg toward the floor, bringing the other knee in over your chest. Switch sides for 6 reps, then add a hold for another 4 reps. Breathe naturally throughout. Hug your knees briefly.



# >> floor spinal arch & curve/kneeling twist



## >> **floor** kneeling crunch/plank with leg lift



**14** **Kneeling crunch** Kneeling, one arm stabilized as In Step 13, extend the other arm forward at shoulder level and the opposite leg back at hip height (inset). Exhale, contract your abs, and round your back up to the ceiling as you draw elbow to knee, turning the palm up. Repeat 6 times, then switch sides and repeat Steps 13 and 14.



**15** **Plank with leg lift** From a kneeling position, bend your elbows under your shoulders, hands in loose fists. Straighten one leg behind you, then the other. Contract the abs. Your body should form a straight line from shoulders to heels (inset). Exhale and lift one leg, keeping the knee straight, then place that leg back down and lift the other. Continue for 6 reps, then sit back in Child's pose (Step 25).



>> **floor** twisting side plank/overhead reach

look up at hand

**16 Twisting side plank** Lie on your side, hips stacked, bottom knee bent behind, top leg straight, and foot flexed. Plant your elbow under your shoulder, forearm on floor, hand in loose fist. Tighten your abs and lift your hips. Extend your top arm to the ceiling and look up at it (inset). Exhale and twist, reaching your arm under your torso. Return to start and repeat for a total of 6 times.

head follows action

feel it here

feel it here



**17 Overhead reach** Still in the side plank, reach your top arm overhead, palm down, stretching out the obliques while your core muscles work to maintain this position. Keep your head and neck aligned with your spine. Hold the stretch briefly.

hips stacked

abs tight

rib cage lifted



## >> floor seated side stretch/toe dip



**18 Seated side stretch**  
Lower your hips from the side plank and come into a seated position with one leg bent behind and the other bent in front. Reach the arm on the same side as the front leg overhead toward the back knee, palm down. Hold for a moment, then swing your legs around to the other side to repeat Steps 16–18.



**19 Toe dip** Sit tall, both knees bent in front, feet flat. Lean back onto your elbows, shoulder blades down and together. Tighten your abs and slide your hands under your lower back for support, palms down. Lift your legs to 90–90 (inset). Inhale and dip your toes to the mat, maintaining the right angle at the knees. Exhale, and return to start. Repeat 5 times.



>> **floor** balance & crunch/crossover stretch

**21** **Crossover stretch** Stretch out on your back. Bend one knee up and use the opposite hand to guide it across your body into a Spinal twist. Turn your head away from the bent knee. Rest the other arm to the side, palm up. Relax into the stretch, then change sides.





## >> floor lower-back stretch/circles

**22 Lower-back stretch** Still lying on your back, return to center. Bend both knees up to your chest, separate them, and place your hands under your thighs. Inhale, then exhale as you pull your knees toward your shoulders, lifting your tailbone off the floor to gently stretch out your lower back.



**23 Circles** Place your hands on top of your knees (inset) and circle them together 3 times each way, massaging your lower back into the floor. Breathe naturally throughout and, with every exhale, think of releasing tension in your muscles.



# >> floor lat push/child's pose



**24 Lat push** Turn onto your stomach, arms bent wide to the sides. Tuck your toes under, push onto the balls of your feet, knees off the floor. Scoop out your abs, draw your shoulders together in a “W,” and lift your arms and head (inset). Push one arm forward, then bring it back, alternating sides for a total of 5 reps.



**25 Child's pose** Sit back on your heels and bend forward, arms stretching out through your center. Keep your elbows off the mat to get the best stretch. Take deep breaths and relax into the position (inset). Then, keeping your head centered between your elbows, walk your hands to one side and hold. Repeat to the other side.



core challenge



# >> floor alligator/thread the needle

**26 Alligator** Come to a kneeling position, wrists under shoulders, knees under hips, spine in neutral alignment. Inhale, turn your head toward your hip. Exhale and return to center. Inhale to the other side; exhale and return. Continue moving side to side, using the breath to guide you, for 3 reps.

shoulders and hips move



**27 Thread the needle** This is a Spinal twist from the knees. Starting on all fours, "thread" one arm under your body to the opposite side, palm up. Come to rest on your shoulder and the side of your head. Breathe into the stretch, feeling the elongation all along your side. Then change sides and thread the needle the other way.

rest on shoulder and side of head





**core challenge**



# core challenge at a glance



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▲ **Warm-up**  
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▲ **Warm-up**  
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Double crunch, page 95



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▲ **Floor**



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27

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15 minute **summary**

# >> core challenge FAQs

This section deals with reducing the size of the belly. Why is it that an apple shape is at greater risk for disease than the pear? Why is abdominal fat considered “toxic” and what can we do about it? Does belly fat contribute to lower-back pain? And how do you recover a flat tummy after giving birth?

## >> Why is the midsection of the body the part that goes out of shape so quickly?

There is a natural tendency to store fat in the abdominal area, and this can make it difficult to see the results of your hard work. Many other variables influence the size and shape of your abdomen as well, including genetics, gender, age, and abdominal surgeries (see p10). Remind yourself of all the benefits of strengthening these muscles and stay focused on the positive results you can achieve.

## >> What causes the midlife belly?

>> Age is one part of the equation; hormones and stress also contribute. With age, a woman’s level of estrogen declines and the male hormone, testosterone, becomes more prominent. This causes fat to migrate to the gut from other parts of the body (the hips, for example). Stress reaction has a similar effect on fat distribution as it releases another hormone, cortisol, which also encourages fat storage in the belly.

## >> Why is abdominal fat so “toxic”?

>> Fat found deep in the abdomen (visceral fat) is the real culprit. The enzymes in abdominal fat cells are very active, allowing fat to move easily into and out of the cells. The greater amount of fat in the abdominal cavity, the greater amount that can be dumped into the bloodstream, contributing to high cholesterol levels and heart disease. Additionally, a stress response increases enzyme activity and can cause fat to be released into the blood. (To measure your risk, see pp116–117.)

## **Can exercise help reduce toxic fat?**

>> Yes! Actually, visceral fat is easier to reduce than fat from your thighs (subcutaneous fat). It responds more rapidly to exercise and diet because it is more active and breaks down more quickly. Research shows that exercise reduces the size of fat cells in the belly more effectively than dieting alone. It also prevents fat from being stored in the organs and muscles.

## **What's the fastest way to shape up my midsection?**

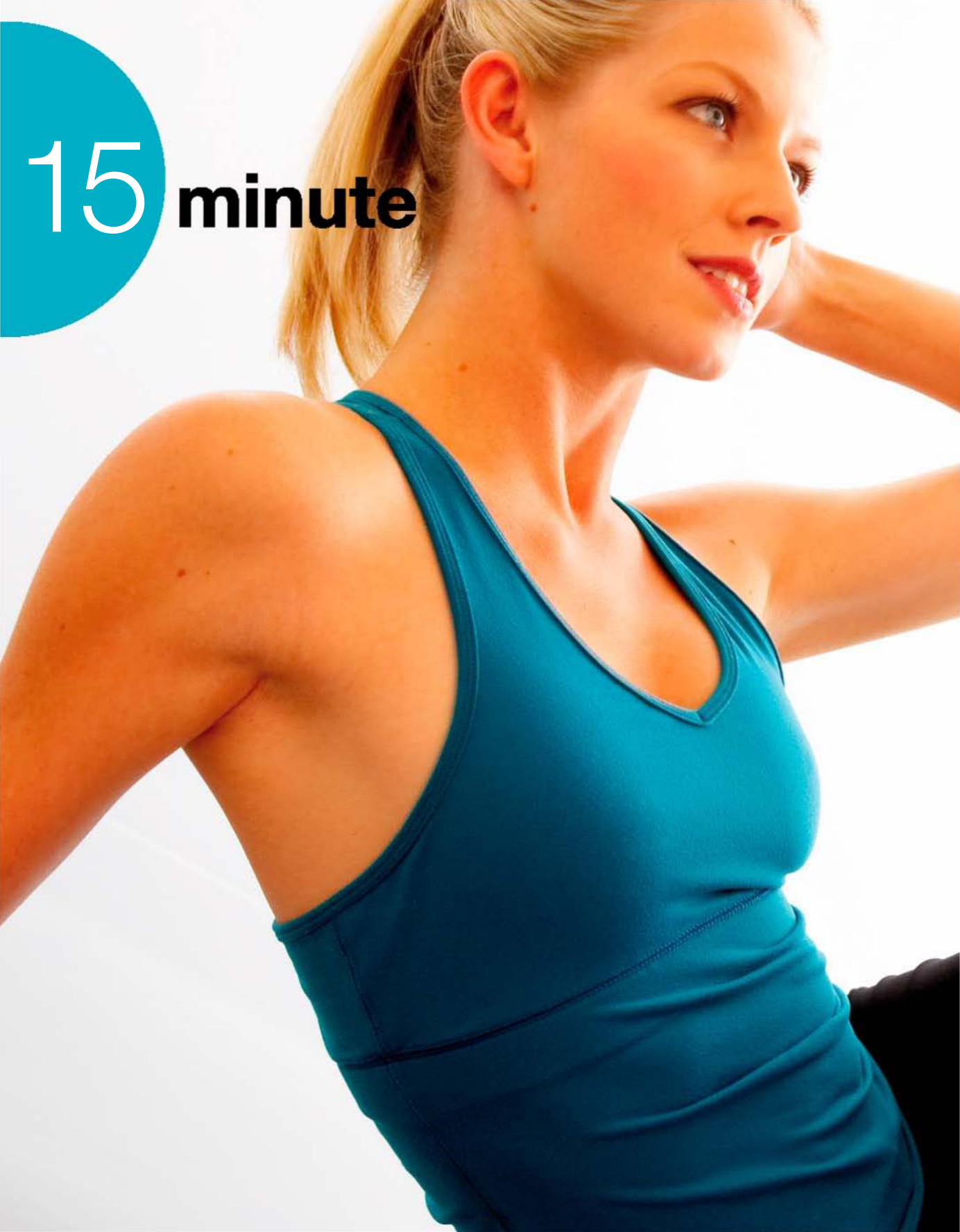
The optimal program includes cardio training (at least 30 minutes a day, five days a week), abdominal strengthening and stretching (as in these workouts), and eating a moderate diet. Begin gradually and build up slowly, in both the cardio and the ab routines. To speed results, always aim for slightly higher intensity. When you are ready to progress, do more intense cardio work to burn more calories in the same period of time, and double up on the ab workouts (just remember to allow a day of rest before repeating them).

## **Will doing these exercises help prevent lower-back ache?**

They definitely can help. A combination of weak abdominals and extra weight around the belly can pull the top of the pelvis forward, increasing the curve in the lower back and straining it. This can cause muscle fatigue, soreness, or injury. Solution: strengthen the abs and lose body fat.

## **I'm a new mother. What's the best way to get my flat belly back?**

It may take up to six weeks for your body to recover from giving birth, and many factors can interfere with regaining your prebaby body, including age, skin elasticity, C-section scars, former fitness level, and multiple births. When your doctor gives you permission, resume activity gradually (ab routines and cardio workouts). Also remember to engage your abs and use proper body mechanics when carrying, changing, and lifting the baby (see pp122–123).



**15** minute



# abs

# roundup



Keeping your abs in shape  
enhances your health, fitness,  
and quality of life

## >> risk assessment

Before beginning any exercise program, make sure that it is safe for you. Take the PAR-Q questionnaire opposite to see if you should check with your doctor first. Then take the measurements here to assess whether the body-fat distribution in your trunk poses a health risk.

Body composition and shape are closely related to fitness and health. Check your body shape in the mirror: If you have excess body fat, are you carrying it around your middle (apple shape) or does it settle in your hips and thighs (pear shape)? Excess deep abdominal fat, carried at the belly, signals a greater risk of heart disease, high blood pressure, and diabetes than ample hips. Exercise can help reduce your risk. Be sure to perform regular, calorie-burning cardio along with your ab routines.

### Measuring the risk

Take a measurement at your waist: The waist circumference alone can be used as an indicator of health risk because, as we have seen, abdominal obesity is the issue. Measure your waist at the narrowest point on your belly. A measurement above 35 in (89 cm) is considered high risk for women; above 39 in (99 cm) is high risk for men.

Another simple method of determining body-fat distribution is the Waist-to-Hip Ratio. Take a measurement at the largest part of your hips (see photo inset); then divide your waist measurement (see right) by your hip measurement to determine the ratio. For example:

Waist measurement = 30 in (76 cm)

Hip measurement = 40 in (102 cm)

Waist-to-Hip Ratio =  $30 \div 40$  ( $76 \div 102$ ) = 0.75

Health risk increases with a high Waist-to-Hip Ratio: in women aged 20–39, a ratio of more than 0.79 is considered high; for women aged 40–59, the figure is 0.82; and for those aged 60–69, it is 0.84.



**To take accurate measurements,** always use a flexible plastic or cloth tape measure and be sure to keep it level as you wrap it around your body.

**PAR-Q AND YOU** A questionnaire for people aged 15 to 69 Physical Activity Readiness Questionnaire—PAR-Q (revised 2002)

Regular physical activity is fun and healthy, and increasingly more people are starting to become more active every day. Being more active is perfectly safe for most people. However, some people should check with their doctor before they start becoming much more physically active than they are already.

If you are planning to become much more physically active than you are now, start by answering the seven

questions in the box below. If you are between the ages of 15 and 69, the PAR-Q will tell you if you should check with your doctor before you start. If you are over 69 years of age, and you are not used to being very active, check with your doctor.

Common sense is your best guide when you answer these questions. Please read the questions carefully and answer each one honestly: check YES or NO.

YES NO

- 1 Has your doctor ever said that you have a heart condition and that you should only do physical activity recommended by a doctor?
- 2 Do you feel pain in your chest when you do physical activity?
- 3 In the past month, have you had chest pain when you were not doing physical activity?
- 4 Do you lose your balance because of dizziness or do you ever lose consciousness?

YES NO

- 5 Do you have a bone or joint problem (for example, back, knee, or hip) that could possibly be made worse by a marked change in your physical activity?
- 6 Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?
- 7 Do you know of any other reason why you should not do physical activity?

**If you answered YES to one or more questions**

Talk with your doctor by phone or in person **BEFORE** you start becoming much more physically active or **BEFORE** you have a fitness appraisal.

Tell your doctor about the PAR-Q and which questions you answered YES.

- You may be able to do any activity you want—as long as you start slowly and build up gradually. Or, you may need to restrict

your activities to those that are safe for you. Talk with your doctor about the kinds of activities you wish to participate in and follow his/her advice.

- Find out which community programs are going to prove safe and helpful for you.

**If you answered NO to all questions**

If you answered NO honestly to all PAR-Q questions, you can be reasonably sure that you can:

- start becoming much more physically active—begin slowly and build up gradually. This is the safest and easiest way to go.
- take part in a fitness appraisal—this is an excellent way to determine your basic fitness so that you can plan the best way for you to exercise and live actively. It is also highly recommended that you have your blood pressure evaluated. If your reading is over 144/94, talk with your doctor before you start becoming much more physically active.

**DELAY BECOMING MUCH MORE ACTIVE:**

- if you are not feeling well because of a temporary illness such as a cold or a fever—wait until you feel better.
- if you are or may be pregnant—talk to your doctor before you start becoming more active.

**PLEASE NOTE:**

If your health changes so that you then answer YES to any of the above questions, tell your fitness or health professional. Ask whether you should change your physical activity plan.

Informed use of the PAR-Q: The Canadian Society for Exercise Physiology, Health Canada, and their agents assume no liability for persons who undertake physical activity, and if in doubt after completing the questionnaire, consult your doctor prior to physical activity.

Source: Physical Activity Readiness Questionnaire (PAR-Q) 2002. Used with permission from the Canadian Society for Exercise Physiology www.csep.ca

## >> abs work for fitness

A well-rounded exercise program has a definite structure and includes cardiovascular or aerobic exercise, resistance training, and stretching. Your 15-minute Abs Workout is technically a form of resistance training that develops both strength and endurance in the abs.

Every workout should begin with a warm-up to prepare the muscles for more strenuous work and reduce the risk of injury. Rhythmic stepping patterns and arm movements serve to elevate the temperature of the core body and muscle tissue, and bathe the joints in lubricating (synovial) fluid.



**Squat** By working the thighs, buttocks, and lower legs, as well as using the abs and back muscles, the squat is the closest we can get to a full-body exercise.

Resistance training uses various methods of muscle overload to stimulate muscle development. In these ab workouts, the overload is provided by your own body weight. To add resistance, use a weighted ball in the Beach Ball routine (pp44–57).

### The importance of core strength

Core strength is integral to the proper execution of any exercise in which you are working with your own body (as opposed to using a machine). In both the squat and the push-up, for example, strong abs maintain the neutral alignment of the spine as you lift and lower your body weight against gravity. If you combine squats and push-ups with your abs workout, you have a mini full-body conditioning routine that you can do any time, any place.



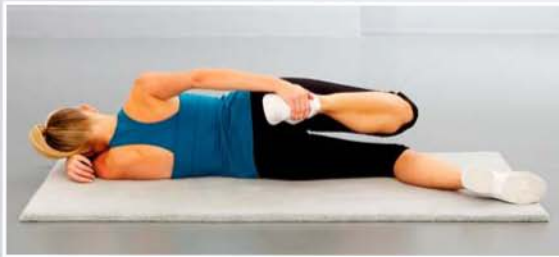
**Push-up** This very efficient exercise requires core strength to keep the torso in alignment as you work the muscles of the upper body—the chest, shoulders, and triceps.



A strong core also enhances your cardio workouts, providing postural support when you are walking, jogging, stair climbing, and so on. And conversely, cardio activities are a key factor in burning calories and reducing body fat, especially the “toxic” fat around the belly (see Risk Assessment, p116). To lose belly fat and flatten the belly, incorporate 30 minutes of cardio most days of the week and do your abs workout every other day.

Stretching is the third component. It restores length to the muscles after they have been

contracting in cardio and resistance exercises. It also improves posture and alignment. Targeted stretches can help realign the pelvis and reduce a belly pouch. If the hip flexors are tight, for example, they can pull the top of the pelvis forward, creating excessive sway in the lower back and causing your belly to protrude (even if you have no body fat). Lengthening these muscles releases the pelvis into a neutral position. This not only benefits posture, but also helps activate the deepest abdominals. The two stretches shown here can help.



**For the Quadriceps stretch (above),** lie on your side, bend one knee behind you, and draw your foot toward your buttocks. Tuck your hips under to feel the stretch in the hip flexor. For the Kneeling lunge stretch (right), come up on one knee. Press your hips forward until you feel a stretch in the front of your hip.



## >> perfect positioning

Positioning refers to how you align your body before moving and how you stabilize it while you perform the exercise. Perfect positioning serves to establish a supportive foundation for the movement, isolate the target muscles for better results, and protect the body from injury.

Although the entire body needs to be properly stabilized, we should pay special attention to the spine, neck, shoulder girdle (shoulder blades), and pelvis. To understand your own positioning better, you should first be aware of how you hold these areas when you are at rest. Each body is as individual as its owner, with a unique physical landscape of varying curvatures, limb lengths, and joint structure. Learning to know your body at rest will help define the areas you can improve with

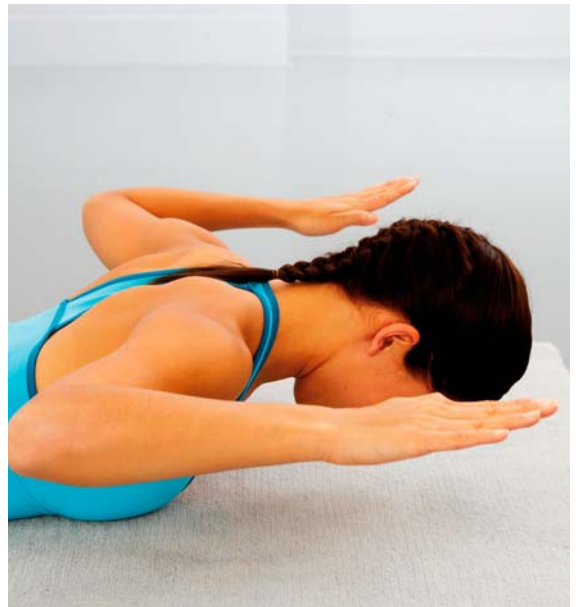
training. Be careful not to force your body into an unnatural position that causes pain or discomfort.

### Correct alignment

Alignment pertains to the ability to hold your form in all positions against gravity—standing, sitting, on all fours, supine (face-up), and prone (face-down). The head and neck are always held in alignment with the spine. The neck is the most mobile part of your spine and depends on its muscles to support the



**Positioning for Forearm plank** Stabilize your shoulder blades. Hold your hands in loose fists to relax the upper body. Allow the strength to emanate from your center.



**Positioning for “W’s”** Lie face-down, arms bent wide and to the sides. Lift your head slightly. Inhale, then draw the shoulder blades down and together as you slowly exhale.

10–12 lb (4.5–5.4 kg) weight of the head. A good tip for maintaining alignment when you are in the prone position, as shown in the photographs here, is to remember “nose down.”

The correct position of the spine is in neutral alignment, with the natural curves in place: An anterior (inward) curve in the neck, a gentle posterior (outward) curve in the upper back, and a slight inward curve again in the lower back. The photograph below depicts a lovely neutral spine in the kneeling position: The same alignment applies to standing and floor work as well.

The alignment of the pelvis affects the curve of the lower back. In neutral, the pelvis is not tilted forward or backward. Tight muscles in the front of the thigh (the quadriceps and hip flexors) can pull the pelvis into an anterior tilt, causing the lower belly to protrude and increasing the curve in the lower back (known as “swayback”). If the hamstrings in the back of the thigh are tight, they can cause a posterior tilt that flattens the curve in the lower back. Doing the Pelvic tilt (pp16–17) can help you explore exactly where neutral is for you.

The shoulder girdle is a tricky area, requiring special effort to stabilize properly, given its high degree of mobility. This lack of inherent stability is one reason why our shoulders tend to creep up around our ears and pull forward in a hunched posture. We need to create stability by strengthening the muscles that retract (pull back) and depress (pull down) the shoulder blades. A number of terms describe this action—bracing, anchoring, pinching. “W’s” are a simple exercise to strengthen these muscles. They are depicted in the prone position on p120, but you can also do them standing or seated. Do 10 of them anytime during the course of your day—at your desk, watching TV—to help reverse the “forward slouch.” Hold each contraction for a count of five as you exhale.

**Perfect positioning when kneeling** means keeping your knees under your hips; your wrists under your shoulders; your shoulder blades anchored; your spine in neutral; your abs engaged. When preparing to lift one arm, as for the Kneeling lift (p77), stabilize the supporting arm by pushing into the thumb and index finger of that hand.



# >> abs in everyday life

Your anatomic center, or core, generates strength and mobility for the whole body. Muscles maintain the alignment of the skeletal frame when you are sitting, standing, and moving. They provide endurance for holding a position and dynamic power when the body is in motion.

The abdominals are key players in core training. The muscles of the spine—the spinal extensors—work in concert with them to stabilize the torso. By strengthening and stretching these opposing muscle groups, you not only improve your figure, but you also improve your ability to function and you reduce your risk of developing musculoskeletal problems. A strong core equips you to handle the routine physical demands of daily life—lifting children, working at a desk, doing housework, driving a car, or simply getting up out of a chair—with greater ease and comfort.

The abs and spinal extensors also provide postural support for correct alignment of the skeleton. Alignment refers to the relationship of the head, shoulders, spine, and hips to each other. Normal alignment counteracts the constant force of gravity on the body, reducing stress on the spine, and ensuring that the joints work efficiently. Without proper postural support, your muscles work at a disadvantage in their attempt to support you against gravity and you fatigue more easily. Under strain, they are also at higher risk for injury. Strong abs support the lower back and help prevent debilitating pain.

The abs engage the moment you get out of bed and continue working all day. As you develop a kinesthetic awareness of the way they work in your body, it becomes easier to consciously recruit them throughout the day. Using proper body mechanics reduces muscle fatigue and is energizing. You may not feel so tired during the course of your day.

## >> a glossary of terms

- **Musculoskeletal system** The bones (skeleton), joints, and muscles. All human movement depends on the interaction of these three components.
- **Alignment** The skeletal frame in balance, following the natural curves of the spine, with the segments of the body stacked vertically from head to toe.
- **Body mechanics** Muscles maintain proper alignment of the skeleton in movement to create efficiency of joint action and reduce the risk of strain.

### Body mechanics and alignment tips

When sitting, use active, internal abdominal stabilization rather than passive, external support. The torso will passively conform to whatever improper position is available, so you cannot rely on external support. Properly designed chairs and desks are rare. Keep your weight distributed evenly across both hips. Feel the sitbones, not the tailbone, beneath you. Sit up tall, with the spine straight and with a natural curve in the lower back. To reverse the forward slouch, activate the shoulder blades, “pinching” them down and together (see “W’s,” p120).



**In activities** that require pushing and pulling (left), engage your abs to keep your back straight, and bend forward from the hip. Shift your weight in a rocking motion.

**When you are standing leaning forward** (below), use your abs to stabilize the torso. For folding laundry, for instance, flex from the hip, keeping the upper back straight.



When standing, distribute your weight evenly on both feet. Soften the knees. Line the ribs up over the hips. Think of pulling up through the abdomen and lengthening through the spine to counteract the force of gravity. Engage the abs to position the pelvis in neutral spine alignment (see pp120–121).

As you walk, balance your head above your shoulders and hips. Keep your rib cage lifted as if there were a string from the center of your sternum to the ceiling. Relax your shoulders down and slightly back.

In activities where you are standing leaning forward, as in doing dishes, making the bed, folding laundry, or brushing your teeth, the common tendency is to bend forward from the waist and round the upper spine, which creates a slumped posture and places high stress on the vertebrae. Instead, retrain yourself to bend the knees slightly and flex forward from the hip, using your abs to keep the torso straight.

When lifting something heavy, like a box from the floor or a baby from a crib, keep your upper back straight and your lower back in neutral position. Tighten the muscles of your abdomen to support your lower back and bend your knees. Let the strong muscles of the glutes and legs do the work. Keep the load as close to your body as possible.

In pushing/pulling movements, as when vacuuming, mopping the floor, or raking leaves, instead of bending forward from the waist and twisting, stand with feet apart, pointing forward. Then shift your weight in a rocking motion, moving forward and back rhythmically. Use your abs to keep your trunk aligned, ribs over hips.

To rise from a chair, slide forward to the edge of the seat, both knees at right angles. Then pull your abs in and lean forward from your hips, with a straight torso. Place one foot behind the other, come onto the ball of the back foot, and push yourself up, using strength from your legs.

# useful resources

The resources below provide some useful contact details that will help give you a good start in finding high-quality exercise equipment. You will also find some organizations and websites with general information on health and fitness if you decide you would like to learn more.

## USA & Canada

### The American College of Sports Medicine

[www.acsm.org](http://www.acsm.org)

ACSM promotes and integrates scientific research, education, and practical applications of sports medicine and exercise science to maintain and enhance physical performance, fitness, health, and quality of life.

### The American Council on Exercise

[www.acefitness.org](http://www.acefitness.org)

ACE is a nonprofit organization committed to enriching quality of life through safe and effective physical activity. ACE protects all segments of society against ineffective fitness products, programs, and trends through its ongoing public education, outreach, and research. ACE further protects the public by setting certification and continuing education standards for fitness professionals.

### The Canadian Society for Exercise Physiology

[www.csep.ca/forms.asp](http://www.csep.ca/forms.asp)

The scientific authority on exercise physiology, health, and fitness in Canada.

### Fitness Wholesale

[www.fitnesswholesale.com](http://www.fitnesswholesale.com)

email: [fw@fwonline.com](mailto:fw@fwonline.com)

Tel: 800-537-5512

For weights, exercise mats, and “slomo balls” (unweighted, inflatable balls).

### IDEA

[www.ideafit.com](http://www.ideafit.com)

IDEA is a worldwide membership organization providing health and fitness professionals with pertinent information, educational opportunities, career development, and industry leadership.

### Perform Better

[www.performbetter.com](http://www.performbetter.com)

email: [performbetter@mfathletic.com](mailto:performbetter@mfathletic.com)

Tel: 888-556-7464

This web-based retailer offers a very wide range of all types of fitness equipment.

### Power Systems

[www.power-systems.com](http://www.power-systems.com)

email: [customerservice@power-systems.com](mailto:customerservice@power-systems.com)

Tel: 800-321-6975

Offers a range of gear, with a good selection of exercise balls.

### Topaz Medical

[www.topazusa.com](http://www.topazusa.com)

email: [info@topazusa.com](mailto:info@topazusa.com)

Tel: 800-264-5623

Specializes in rehabilitation exercise equipment, selling high-quality gel-filled medicine balls.

## UK

### Newitt & Co. Ltd.

[www.newitts.com](http://www.newitts.com)

email: [sales@newitts.com](mailto:sales@newitts.com)

Tel: 0044-(0)-1904-468551

Offers sports equipment by mail order. Supplier of medicine balls and weights.

### **Sissel UK Ltd.**

www.sisseluk.com  
email: info@sisseluk.com  
Tel: 0044-(0)-1422-885433  
For thick exercise mats and stability balls.

### **sweatyBetty**

www.sweatyBetty.com  
email: internet@sweatyBetty.com  
Tel: 0800-169-3889 (from UK only)  
Founded in 1998 by Tamara Hill-Norton, sweatyBetty sells gorgeous clothing for active and not-so-active women in boutiques nationwide and online.

### **Totally Fitness**

www.totallyfitness.co.uk  
email: sales@totallyfitness.com  
Tel: 0044-(0)-20-7467-5939  
For weights and stability balls.

## **Australia**

### **Elite Fitness Equipment**

www.elitefitness.com.au  
email: info@elitefitness.com.au  
Tel: 0061-1800-622-644  
Provides an extensive selection of fitness gear.

### **Fernwood Women's Health Club**

National Office  
www.fernwoodfitness.com.au  
Tel: 0061-1300 FERNWOOD  
Fernwood is the largest organization of women-only health clubs in Australia.

### **Fitness First**

www.fitnessfirst.com.au  
Tel: 0061-1300-55-77-99  
A global gym operator with 70 locations in Australia.

### **Health Insite**

www.healthinsite.gov.au  
Contains a wide range of information on important health topics including sports, exercise, fitness, and injury prevention.

### **YMCA Australia**

www.ymca.org.au  
The YMCA delivers health, fitness, recreation, and other services to individuals, families, and communities across all of Australia.

## **other books by Joan Pagano**

### *15-Minute Total Body Workout*

(Dorling Kindersley, 2008)  
Tone up and get fit with the combined cardio-strength training programs, presented with easy-to-follow instructions and a high-quality companion DVD. The four 15-minute routines can be learned in the book and performed along with the DVD—a realistic time commitment for busy people on the go.

### *8 Weeks to a Younger Body*

(Dorling Kindersley, 2007)  
Whatever your actual age, you can beat your body-clock and drop a decade with these

specially designed exercises. Find out how to stay young as you increase your personal fitness levels and overall health.

### *Strength Training Deck*

(Dorling Kindersley, 2006)  
Based on Joan's popular book, *Strength Training for Women*, the exercise-card deck combines straightforward information with fresh, clean design in a portable format of 52 exercises to sculpt and strengthen the body.

### *Strength Training for Women*

(Dorling Kindersley, 2005)  
This step-by-step strength-training manual features exercises to help you shape and tone your body. Joan shows you how to get the best out of your workout, improving both your strength and stamina for long-lasting results.

## **to contact Joan Pagano**

Joan Pagano Fitness Group  
401 East 89th Street (# 2M)  
New York, NY 10128  
www.joanpaganofitness.com  
email: info@joanpaganofitness.com

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# acknowledgments

Thank you to all of my family and friends for their patience and encouragement during the long days of writing. To James for his infinite TLC and for keeping me in balance. To my mother for always caring. And to my sister Lucy for coming to my rescue once again.

Thank you to my clients for sharing the path—for years of loyalty, for being supportive and accommodating, and for always having a spirit of adventure.

Thank you, DK, for the opportunity to reach out to women around the world and to work with an outstanding team of professionals. To Mary-Clare Jerram and Jenny Latham for steering the project. To my editor, Hilary Mandleberg, for all the ways she enhanced this work and for her determination to ensure the best results. To Ruth Hope for her stunning artistic vision and to Ruth Jenkinson for her brilliant photography. And to Carla and Jacqui, our models, for being so lovely, inside and out.

## about Joan Pagano

Joan Pagano, a Phi Beta Kappa cum laude graduate of Connecticut College, is certified in health and fitness instruction by the American College of Sports Medicine (ACSM), whose credentials provide the very best measure of competence as a professional. She has worked as a personal fitness trainer on Manhattan's Upper East Side since 1988, providing professional guidance and support to people at all levels of fitness. Through her work, she has created hundreds of training programs for individuals, groups, fitness facilities, schools, hospitals, and corporations. For many years, she served as the Director of Personal Trainer Certification Program at Marymount Manhattan College.

### **Publisher's acknowledgments**

Dorling Kindersley would like to thank photographer Ruth Jenkinson and her assistant Ann Burke; sweatyBetty for the loan of some of the exercise clothing; Viv Riley at Touch Studios; the models Jacqui Freeman and Carla Collins; Victoria Barnes and Roisin Donaghy for the models' hair and makeup; Hilary Bird for the index.

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For further information see [www.dkimages.com](http://www.dkimages.com)

Today, Joan manages her own staff of trainers in the Joan Pagano Fitness Group. She is a nationally recognized provider of education courses for fitness trainers through IDEA (an organization supporting fitness professionals worldwide) as well as an authority on the benefit of exercise for women's health issues such as pregnancy, breast cancer, menopause, and osteoporosis. She is the author of *15-Minute Total Body Workout*, *8 Weeks to a Younger Body*, *Strength Training Deck*, and *Strength Training for Women*, for which Weight Watchers bought the serial rights.



Not a fan of the gym? No time for classes? Work your abs for just 15 minutes a day, three times a week—and see real results



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