Developing Grade-A Abs

Strong abdominal muscles can protect you from low-back pain and help you perform your daily activities efficiently. Bill Bejeck, CSCS, CCS, owner of HealthSport Fitness and Sport Training Services in the Washington, DC, area, offers some guidance on training the abdominals.

The Muscles Involved. As you can see from the illustration, the "abdominals" include several muscle groups: the **rectus abdominis,** the **obliques** and the **tranversus abdominis.** Also important in any program designed to strengthen the abdominals are the **erector spinae.** Though not shown in the illustration (and *not* abdominal muscles themselves), these lower-back muscles add greatly to trunk strength and stability.

The Rectus Abdominis. The rectus abdominis muscles—sometimes called the "six-pack"—are the most superficial muscles in the core region. They stabilize the pelvis during walking and flex and rotate the lumbar spine. To work the rectus abdominis, perform a standard crunch or a crunch over a stability ball. For a good combination exercise, crunch and rotate the elbows in an alternating fashion, right elbow to left knee and left elbow to right knee.

The Obliques. The internal and external obliques lie at the sides of the core area. When activated on one side, they help perform moves that involve trunk rotation (twisting) or lateral flexion (bending to one side). When contracted on both sides simultaneously, these muscles aid in flexing the vertebral column and compressing the abdominal wall. To work the obliques, attach one end of a piece of rubber tubing to a secure object (e.g., a railing or heavy beam). Hold the other end in both hands. Turn 90 degrees, so one side of your body is toward the secure object, and extend your arms out in front of you. You should be far enough away from the attachment to feel tension on the tubing. From this starting position, rotate the trunk away from where the tubing is attached. Then return to the starting position. Perform 15 to 20 reps on each side.

The Transversus Abdominis. The transversus abdominis muscles contain the deepest fibers of the abdominal wall. These muscles increase trunk stability and help maintain proper posture and low-back stability. To activate the transversus abdominis, lie flat on your back with knees bent and feet flat on the floor. Draw the belly button toward the spine. Maintain this position for a slow count of five. Do not perform pelvic tilts. For more challenge, lift your feet off the ground and bring your thighs up until the kneecaps point toward the ceiling. Keeping the stomach drawn in, slowly extend one leg and bring it back to its previous position. Perform 10 to 15 repetitions per leg. If at any point the abdominal muscles push out, stop, put your feet down and draw your stomach back in.

The Erector Spinae. These important low-back muscles add to trunk strength and stability and help maintain posture. To work the erector spinae, lie face down on the floor with arms extended. Simultaneously raise both arms and both legs off the floor. Keep the legs as straight as possible and squeeze the gluteus muscles. Hold briefly at the top and then lower the arms and legs to the floor. Perform 15 to 20 reps.

"Functional" Exercises. Functional abdominal exercises are valuable because they require all the muscles in the abdominal region to work together, as they often must do in real life. Here is one example: Kneel about 18 inches behind a stability ball. Lean forward and rest the forearms on the ball, clasping the hands together. Slowly push the ball away from the body until the arms are fully extended, then pull the ball back. To protect the lumbar spine, maintain a posterior tilt while performing this exercise. Perform 15 to 20 reps.

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