

# ABSolutely Effective Abdominal Exercises

*American Running Association*

Core strength is essential for optimum health and athletic performance. You develop some core strength just doing what you do and moving throughout your day, including running. But to optimize core strength, you will have to apply yourself to specifically strengthening your abdominal muscles. Your payoff will be better athletic performance, lower risk of back pain and last but not least, an aesthetically pleasing midsection.

You won't want to waste your time or money, however, on ineffective exercises or expensive gizmos. In a study from San Diego State University, researchers tested and ranked the leading abdominal exercises and equipment and found some surprises. Effectiveness was evaluated by measuring muscle activity using electromyography. For one, the ubiquitous "crunch" is way down the list (11th out of 13) for effectiveness. But even the poor crunch bettered the Ab Rocker, which (for nearly \$70) came in dead last for effectiveness. None of the tested equipment (Torso Track, Ab Roller or Ab Rocker) targets the abdominal muscles as well as these top-rated exercises: the Bicycle maneuver, Captain's chair, crunches on an exercise ball and the reverse crunch (see below for descriptions).

Doing crunches on an exercise ball was ranked highest for best overall abdominal exercise. Other studies have shown that performing crunches on the unstable surface of an exercise ball creates double the exercise stimulus as compared to a stable surface like the floor.

So skip the equipment pitches, pass on the tired old standard crunches and try these exercises to strengthen your important core muscles. Build repetitions gradually to avoid an overly sore midsection, but be consistent with workouts at least three times a week.

## **The Bicycle**

Lying flat on your back, hands behind your head, bring your knees toward your chest. Alternately extend each leg, touching the opposite elbow to the knee as it returns to your chest. Heels hover just over the floor during extension.

## **Captain's Chair**

You can find a Captain's chair at the gym. It has a padded back, two parallel arms and no seat. Once in position with your legs dangling, slowly raise your knees toward your chest and return.

### **Exercise Ball**

Sit on a well-inflated exercise ball about the height of your lower leg from the bottom of your feet to your knee. Roll down so that the ball is at your hips and the curve of your back. Your legs should form a bridge, knees are bent at a right angle. From this position, raise your upper body to about 45 degrees and return.

### **Reverse Crunch**

Lying flat on your back, hands extended along your sides, raise your feet until your legs form a 90-degree angle. In a surprisingly subtle move, press your lower back to the floor, contract your abs, rotating and lifting your hips slightly, then lower and repeat.

In addition to effectiveness, risk for low back pain is also an issue when evaluating abdominal exercises. According to American Running Association Editorial Board Member Stephen Perle, D.C., of the following top exercises, only the exercise ball passes the test and therefore gets his highest overall rating. For more information on the study and photographs of all the exercises visit the ACE website at [www.acefitness.org](http://www.acefitness.org).