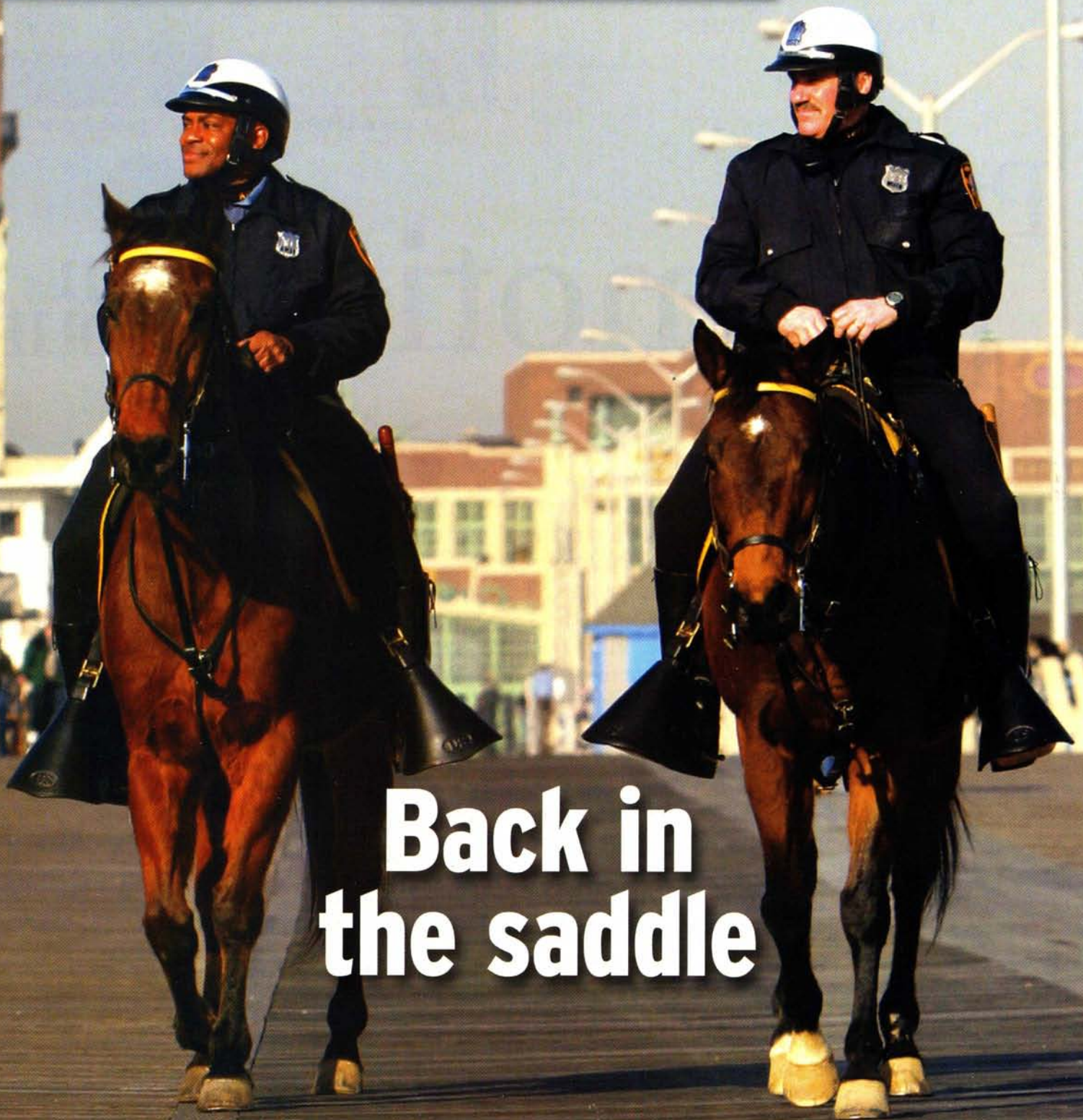


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It's crunch time

■ BY MATT BRZYCKI

The sit-up has been a staple of exercise programs for many decades. In addition, the exercise is often used in fitness tests for law enforcement and military personnel.

It's interesting to look at how the sit-up has evolved over the years.

"Back in the day," doing sit-ups with straight legs was commonplace. In the early 1980s or thereabouts, it was thought that doing sit-ups in this manner places an enormous strain on the lower back. Thus, doing the sit-up with straight legs fell out of favor and the conventional wisdom shifted to doing the sit-up with bent knees as a means of reducing that stress.

The bent-knee sit-up really isn't a bad exercise. But despite doing the exercise with bent knees, some individuals still feel a strain in their lower back. And many individuals feel the exercise more in their iliopsoas (hip flexors) than in their abdominals.

Enter the next evolution of the sit-up: the crunch. This exercise is, essentially, an abbreviated sit-up. Done properly, the crunch can address the abdominal area without the inherent problems that are associated with the sit-up.

ANATOMY 101

The main muscle that's exercised during the crunch (and the sit-up) is the rectus abdominis. This long, narrow muscle extends vertically across the front of your



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abdomen from the lower rim of your rib cage to your pelvis. Its primary function is torso flexion (pulling your torso toward your lower body). The fibers of this muscle are interrupted along their course by three horizontal fibrous bands which gives rise to the term "washboard abs" when describing an especially well-developed abdomen.

Now, let's learn the correct way to do the crunch to target this muscle as effectively as possible.

PROPER PERFORMANCE

To begin the exercise, lie down on the floor and place the backs of your lower legs on the back pad of a bench (or a chair or stool). Position your upper legs so that they're roughly perpendicular to the floor and the angle between your upper and lower legs is about 90 degrees. Fold your arms across your chest. Raise your head off the floor and position your chin near your chest.

To do the exercise, pull your torso as close to your upper legs as possible. Pause briefly in this mid-range position (your torso near your upper legs) and then lower your torso under control to the start/finish position (your torso on the floor).

You can also do the crunch without a bench. In this instance, place your feet flat on the floor and position yourself so that the angle between your upper and lower legs is about 90 degrees. Here, you'd bring your torso toward your upper legs but stop short of the point

where it's perpendicular to the floor. Otherwise, the exercise would be performed in the same fashion as described in the two preceding paragraphs.

TRAINING TIPS

Using strict form is crucial in order to obtain the most benefit from the exercise. As soon as the bottom part of your shoulder blades touches the floor, you should begin the next repetition. If you lower your torso completely (or "uncoil"), you'll remove the load from your abdominal muscles and make the exercise less productive.

When you do the crunch, it isn't necessary to bring your torso all the way to your upper legs. In fact, if you do the crunch as illustrated here, you won't be able to raise your torso very high off the floor. And that's okay since your abdominals are used mainly during the first 30 degrees or so of the movement. (Thereafter, your hip flexors do most of the work.)

In a fitness test, you'll need to do as many crunches as possible in a given amount of time. But in training, your repetitions should be slow and controlled without using an excessive amount of momentum. Along these lines, don't throw your head forward as you do the exercise; movement should only occur around your hip joint and mid-section.

HOW MANY?

Since the range of motion is so small in this exercise, it's a good idea to perform a set of crunches for a certain amount of time rather than a certain number of repetitions. Shoot for about 60 seconds worth of crunches.

If this becomes too easy, you can hold onto extra weight (positioned across your chest) or have a spotter apply manual resistance against your shoulders.

THE BOTTOM LINE

The crunch is an effective variation of the sit-up for training your abdominal area. Well, why are you waiting? It's crunch time! ♥

Matt Brzycki is the Assistant Director of Campus Recreation, Fitness at Princeton University. A former Marine Drill Instructor, he has authored, co-authored or edited 16 books on strength and fitness, including SWAT Fitness (which is available at www.optacinternational.com).