



Learn the best ways to use the Glute-Ham Developer to achieve maximal tennis power

A defined, hard midsection sends out a powerful signal about the shape you're in, especially if you play tennis. That's because much of the power in the serve and ground strokes come from the abdominal muscles. In fact, there are estimates that rotational movements of the hips and shoulders can produce up to 50 percent of the total force generated in a tennis swing! But before you grind out another crunch or devote any more time, effort and money in search of the perfect waistline, understand that a little training knowledge can go a long way towards getting you a six-pack that is as powerful as it looks.

Although most tennis coaches and tennis players are aware of the importance of abdominal training for their sport, few know how to train the abdominals for maximum results. If you're an athlete who is tired of performing countless crunches with little or no results to show for your effort, it's time to rediscover the glue-ham developer.

Although primarily associated with the glute-ham raise and back extension exercises, the glute-ham developer offers tennis players several ways to

develop powerful abdominal muscles for their sport. Before describing these exercises, it's important to address the myth that you must perform isolation exercises for the abdominals.

The Truth about Abdominal Training

Far too many 'experts' on abdominal training promote "trunk exercises that attempt to 'isolate' the abs and minimize all involvement by the hip flexors, as if the latter are some sort of enemy to trunk strength and health," said the late Dr. Mel Siff, a sport scientist who had conducted considerable research on abdominal training. "The hip flexors, like the hip extensors and back extensors, are meant to work in patterns of appropriate collaboration with the abdominal muscles, so it is quite unnecessary to proclaim that the hip flexor muscles be taken out of all trunk exercises by banning sit-ups with feet held or with almost straight knees."

Another problem with abdominal training is that many exercises are often performed on a flat surface.



The primary abdominal muscle located on the front of the torso, the rectus abdominus, extends from the sternum to the top of the pelvis. When properly developed, this muscle gives you that “six-pack” appearance. As you lie on your back during sit-ups, this muscle can flex the trunk forward approximately 30 degrees, the angle at which the shoulder blades just begin to lift off the floor. At this point any additional movement comes primarily from the muscles that flex your hips.



Most “ab roller” devices do a good job of working the first 30 degrees of motion of the rectus abdominus, and many of these devices enable you to increase the resistance with weights. But the anatomy of the rectus abdominus is such that the torso needs to bend backwards approximately 15 degrees to develop maximum tension in the abdominal muscles, although a further stretch may be better for spinal health. This requirement isn’t possible with ab roller devices or, for that matter, most conventional exercises.

When you train on a flat surface such as a floor, you begin in a neutral position; and this restriction makes it impossible for you to get a full stretch of the

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not know how to protect the back. As Paul Chek, one of the world’s foremost authorities on abdominal training, has said, the abdominals become “stupid.”

Developing Athletic Abs

One answer to flat-surface training is the glute-ham developer. The glute-ham developer allows you to exercise on a spherical surface, thereby conditioning the abs through their full range of motion. The sturdy design of the glute-ham developer also allows you to safely perform abdominal exercises with the heavy resistance necessary to optimal abdominal training.

A word of caution: Because the range of motion is so much greater on a glute-ham developer, during the first few weeks of training on them you should not work the abdominals to failure or perform multiple sets—you could easily pull a muscle. As you become accustomed to these exercises, you can increase the number of sets and begin adding resistance—and don’t be afraid to pack it on!

Having dispelled several of the myths about abdominal training for athletes, here are two effective resistance training exercises for serious tennis players to consider adding to their strength training workouts. To learn about additional effective abdominal (and lower back!) exercises for tennis players, you can download the entire BFS glute-ham developer training manual free from the BFS website (www.biggerfasterstronger.com).

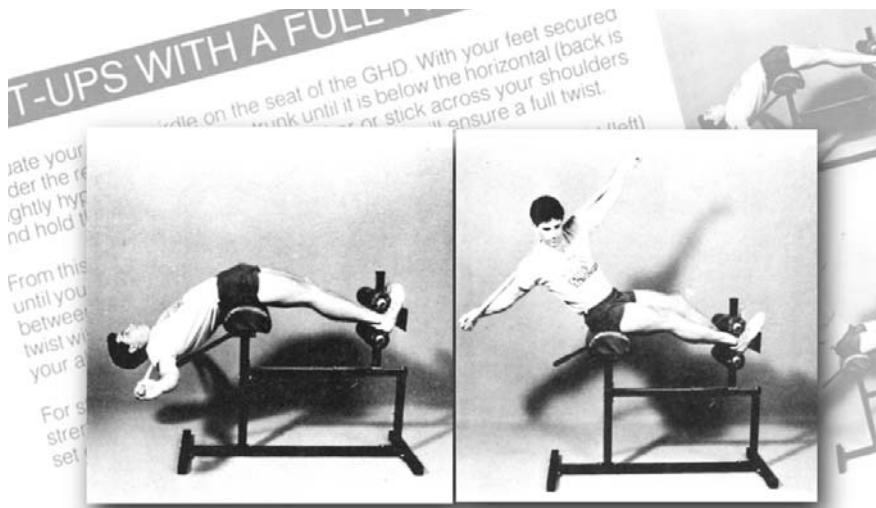
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rectus abdominus. For a tennis player, if the rectus abdominus is not trained throughout its full range of motion, it will not be able to contribute maximum power, especially when the athlete arches at the top of the serve.

Another problem with starting from the neutral position is that the abdominals will not learn how to properly contract when you bend backwards. One possible reason many tennis players may develop back pain is that their abdominal muscles simply do

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Sit-Ups with a Full Twist

Taken directly from the Glute Ham Booklet

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Sit-Ups with a Full Twist

When you're ready to experience full-range abdominal training, here's a great exercise that works both the obliques (side abdominal muscles) and the rectus abdominus. Situate your pelvic girdle on the seat of the glute-ham developer. With your feet secured on the foot plate, lower your trunk until it is below the horizontal (back is slightly hyperextended). Place a light bar or stick across your shoulders and hold the ends with outstretched arms. This will ensure a full twist.

From this starting position, curl up and twist your shoulders to the right (or left) until you are almost in a sitting position. There should be a 90-degree separation between the shoulder girdle axis and the pelvic girdle axis. Alternate the direction of the twist with each repetition.

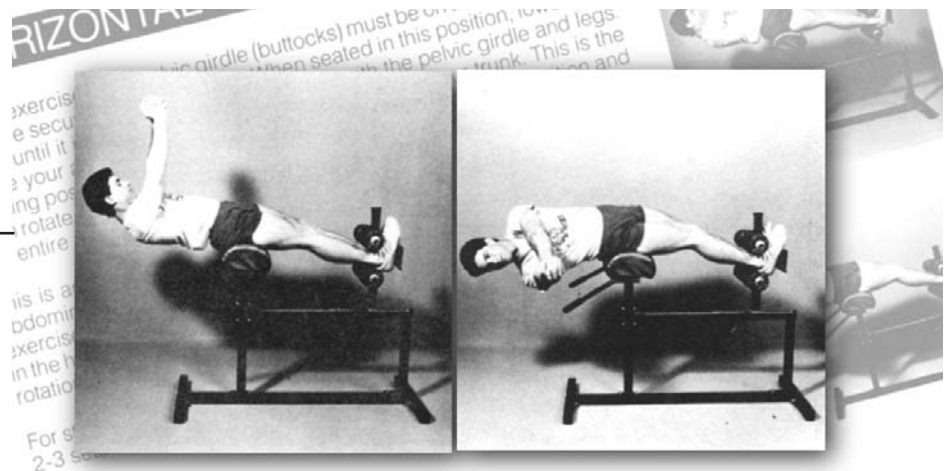
Horizontal Trunk Twists

Also known as the Russian Twist, this exercise requires that your pelvic girdle (buttocks) be on the seat when your feet are secured on the foot plate. When seated in this position, lower your trunk until it is horizontal, in a straight line with your pelvic girdle and legs. Raise your arms so they are perpendicular to your trunk. This is the starting position. Rotate 90 degrees to the right (or left). Return to the initial position and then rotate to the opposite side. Your body must remain straight though the entire exercise.

Horizontal Trunk Twists

Taken directly from the Glute Ham Booklet

There are estimates that rotational movements of the hips and shoulders can produce up to 50 percent of the total force generated in a tennis swing!



Although elite athletes have been known to perform this exercise holding 45-pound weight plates, be warned that this is an advanced exercise and is not recommended if you have weak abdominal and spinal muscles. When you have developed adequate strength in these muscles (by performing the beginner-level exercises described in the BFS training manual) and are ready to take your abdominal training to a higher level, start with no more than five pounds.

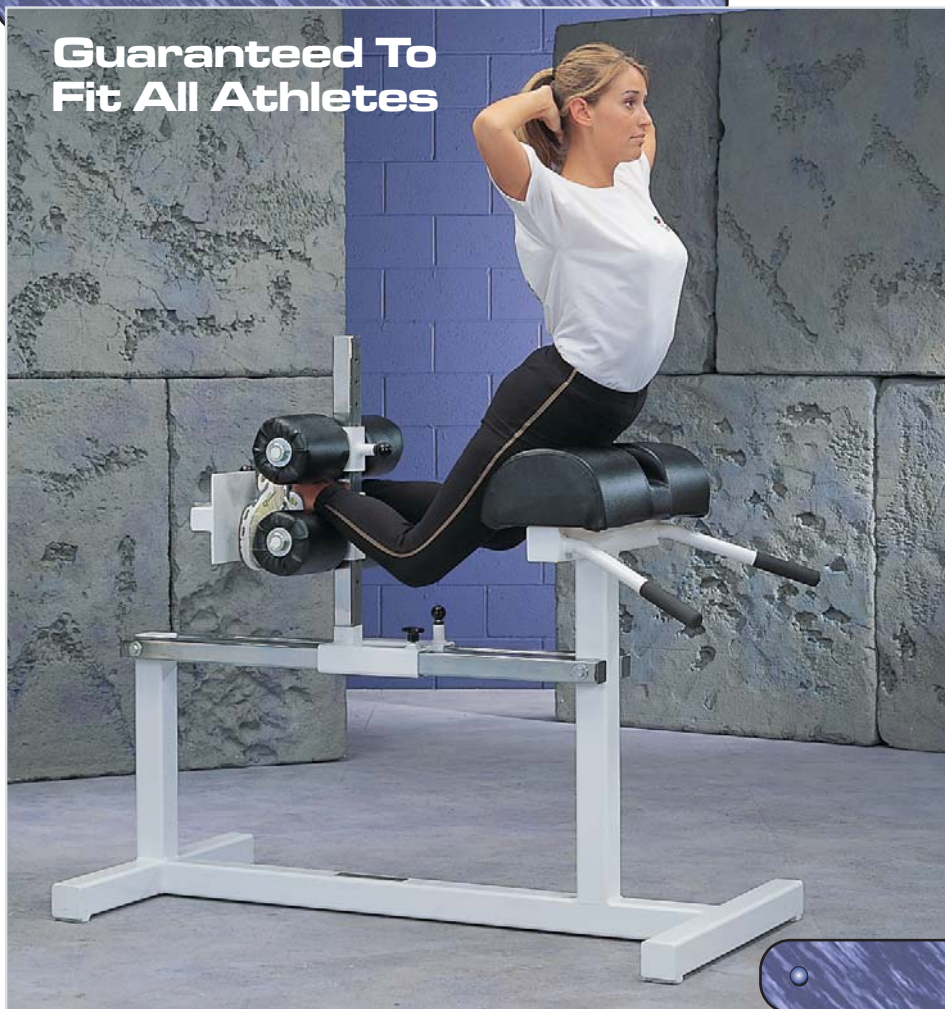
If you're a beginner, a general guideline for abdominal exercises performed on a glute-ham developer is to use a resistance that allows you to comfortably perform about 15 reps for 1 or 2 sets. If you've been training your abdominals for at least a year, start working in the 8-to-12-rep range for at least 3 sets. For more information about reps and sets for specific abdominal exercises, consult the BFS glute-ham developer training manual.

Abdominal training is essential for all athletes, not just tennis players. The important question to ask is not if the abdominals enhance our appearance, prevent injury and improve performance—that's obvious. The question is not "Do we need great abs?" but "How do we get them?" Part of the answer is performing great exercises such as those on the glute-ham developer. **BFS**

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