

STEP-UPS: PROS & CONS

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The single most productive exercise for increasing size, strength and power is the back squat. It is, unquestionable, "The King of Exercises." But there are several other lower body exercises that can enhance your conditioning program. The Bench Step-up is one of them.

I decided to add the Bench Step-up to my conditioning programs when I met Bulgarian weightlifting coach Angel Spassov in 1988. Spassov was in Denver, Colorado giving a lecture on the Bulgarian methods of weight training. One of his topics was the value of the bench step-up.

Spassov's claims about the positive impact the Bench Step-up had on Bulgarian athletes, especially weightlifters, seemed too good to be true. But as I was to discover later, many of these claims were simply not true.

THE CASE AGAINST THE BENCH STEP-UP

One outrageous statement was made in an article Spassov wrote for the December 1989 issue of *Muscle and Fitness*. It concerned Leonid Taranenko, a soviet weightlifter who held the world record in the Clean and Jerk when the article appeared. Says Spassov, "... it has been at least four years since Taranenko has done a back squat of any kind. Besides his practice on the Snatch and Clean and Jerk, the only form of heavy leg training that Taranenko does is the High Step-up with weights."

When this article appeared soviet weightlifting expert Bud Charniga asked Taranenko about Spassov's comments. Taranenko said that he had never talked to Spassov about his training, and that he only does the Bench Step-up when his lower back is overtrained. Taranenko is still squatting strong, and said that he has performed an 837-pound Back Squat with a two-second pause at the bottom.

Another claim by Spassov in the *Muscle and Fitness* article was that Bulgarian weightlifters "began to drop all Back Squatting in favor of the high step-up" several years ago. Again, not true.

Dragomir Ciorosian is a Romanian weightlifting coach who works with U.S. weightlifters at the Olympic Training Center in Colorado Springs, Colorado. Coach Ciorosian trained in Bulgaria under National Team Coach Ivan Abadjiev to prepare for the 1984 Olympic Games, where he captured a bronze medal. When I asked him about the Bench Step-up, Coach Ciorosian said that he had **never** seen **any** members of the Bulgarian National Team perform the exercise. As expected, the Back Squat and the Front Squat are the leg exercises of choice for Bulgarian weightlifters.

With false claims aside, the Bench Step-up has many benefits that coaches and athletes should consider.

THE CASE FOR THE BENCH STEP-UP

BENEFIT 1: The Bench Step-up works the lower leg

Editor's Note:

In my Total Program book, Step-ups are illustrated as a great alternative to Lunges. Statements made by Coach Goss are quite strong in this article concerning Coach Angel Spassov. However, after conversing with U.S. Olympic Weightlifting Head Coach Lyn Jones, I decided to print this article word for word. Coach Jones backs the statements made by Coach Goss.

Brian Hill doing Step-Ups.
Brian was the Liberty Bowl
Defensive MVP
in the Air Force 23-11
victory over Ohio State.
Photo by Paul Thomson



muscles through a full range of motion. At the start your front knee is flexed, and the degree of knee bend is determined by the height of the box. A full range of motion is necessary to achieve maximum involvement of the hamstrings. Since our football team started using this exercise we've noticed a significant decrease in hamstring injuries.

BENEFIT 2: Because it's a free weight exercise, you can perform the Bench Step-up explosively and therefore improve power. With most exercise machines explosive training is not possible, at least not safely. Momentum builds up in the linkage of the mechanism so that it's possible, literally, to lose control of the weight.

BENEFIT 3: The Bench Step-up improves knee stability because you perform the exercise one leg at a time and from a standing position. Knee stability is important not only for injury prevention, but also for athletic performance as it is a primary component of lateral speed. The first time you perform this exercise your front leg muscles will quiver as they try to maintain your balance.

BENEFIT 5: Because your torso remains vertical throughout the exercise, your lower back receives minimal stress. In the Back Squat the stress on your lower back in the bottom position is six times the weight of the bar. Thus, on those days when your lower back feels overtrained from squats, the Bench Step-up would be an excellent exercise to work the legs without risking injury to the lower back. We've found that during the season many of our football players have sore lower backs from contact on

the field. For them, the Bench Step-up is often the only major lower body exercise they can perform comfortably.

BENEFIT 6: During the Bench Step-up you ankles don't flex as much as in the Squat. Therefore, athletes with poor ankle flexibility can use this exercise until their flexibility improves to the level where they can Squat safely. An aggressive stretching program (such as the one offered by Bigger, Faster, Stronger) would prevent these athletes from getting too far behind their teammates.

BENEFIT 7: By using a lower bench this exercise may help rehabilitate many types of knee injuries. As the injured athlete improves their range of motion the height of the bench should be increased. We've been using the Bench Step-up for many of our ACL patients with good success. The advantage of the Bench Step-up for rehabilitation is that the resistance travels in line with the shin rather than across it (as in the knee extension). This effect minimizes the shearing forces - forces that try to pry the knee joint apart - which can aggravate knee injuries.

BENEFIT 8: The Bench Step-up is an excellent exercise for emphasizing eccentric (negative) muscle contractions. Think of eccentric work as the recovery phase of an exercise. For example, lowering a weight to your chest after Bench pressing is the eccentric phase of this lift. For the Bench Step-up, lowering your rear leg back to the floor is the eccentric phase of the lift. To emphasize eccentric work with the Bench Step-up, straighten your leg in the normal manner but lower to the count of at least six.

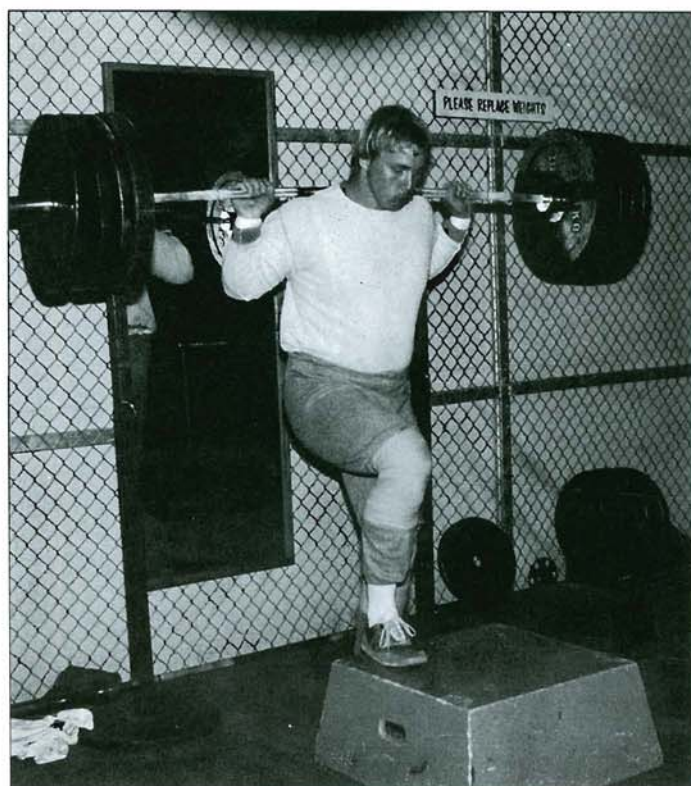
BENEFIT 9: The Bench Step-up is a very safe exercise. When you cannot perform any additional reps you simply remove your foot from the bench. You can't get stuck. This advantage makes the lift excellent for beginning weight training classes.

EQUIPMENT

To perform the Bench Step-up you need a bench (or box) that is high enough so that when you place one foot on it your upper thigh is parallel to the floor. We use a sturdy bench such as the one shown on page 36.

To prevent tripping there are lips on the back and sides of our bench, and the base is wider than the top. A narrow top lets you perform the exercise while facing the squat racks. With this bench you simply remove the weight from the supports, straddle your legs, and shuffle backwards until you are in the proper position. With a wider top you have to remove the weight from the Squat racks while facing backwards, a technique that should be used with spotters. As an additional safety feature we've placed a non-slip surface on the top of our bench. (If you have any questions about this bench, please write me at P.O. Box 62597, Colorado Springs, Co 80962 or call (719) 472-4079.)

In the Muscle and Fitness article the model performed the Bench Step-up on cinder blocks. We've had athletes perform this exercise with weights in excess of 100 pounds over their bodyweight - I'm not going to trust cinder blocks to support this much weight.



*BFS Clinician and Former NCAA Discus Record Holder
Goran "Sven" Swennsen Doing Step-up with 405.*

PERFORMANCE

Our technique for the Bench Step-up begins with a barbell behind your neck, so you will need to remove the weight from a set of Squat racks. Again, you should have spotters if you must use the technique in which you step away from the Squat rack backwards.

Place one foot on the bench as shown and straighten your front leg completely, but do not step onto the bench with the other foot. (During the driving phase your rear leg should remain straight and as close as possible to the bench - its only function after you begin the movement is balance.) slowly return to the start and continue for the required number of reps before switching legs.

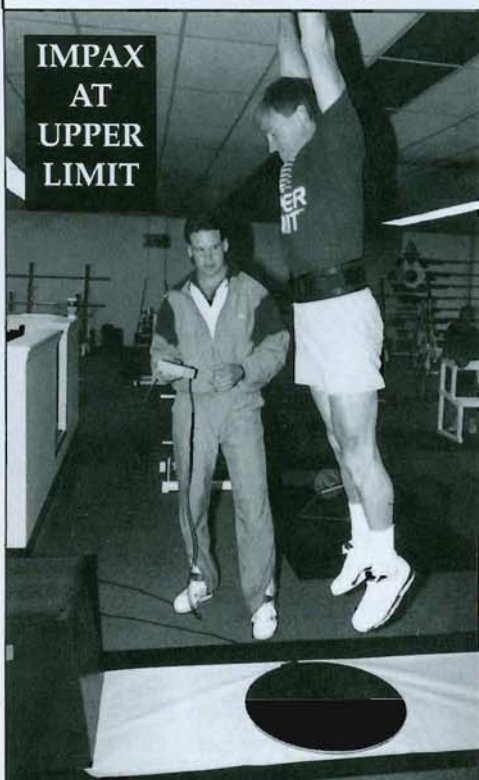
While performing the Bench Step-up keep your torso upright to minimize the stress on your lower back. Also, you can start the movement with a strong kick with your rear leg as this technique will enable you to handle more weight.

The number of reps you perform in the Bench Step-up should follow your training program. We use 1-3 reps for power, 4-6 for strength and higher reps for bulk and muscular endurance. However, if you're trying to increase bulk the Bench Step-up should never be your sole leg exercise. This is because the intensity (how much weight is used) in the lift is far less than Squats. Intensity determines how much muscle tension is created, and its muscle tension that determines how much growth stimulation occurs.

The Bench Step-up may not be the ultimate lower body exercise as Spassov claimed, but it is a good one that can give you an edge over your competitors. Keep Squatting, but give the Bench Step-up a try.

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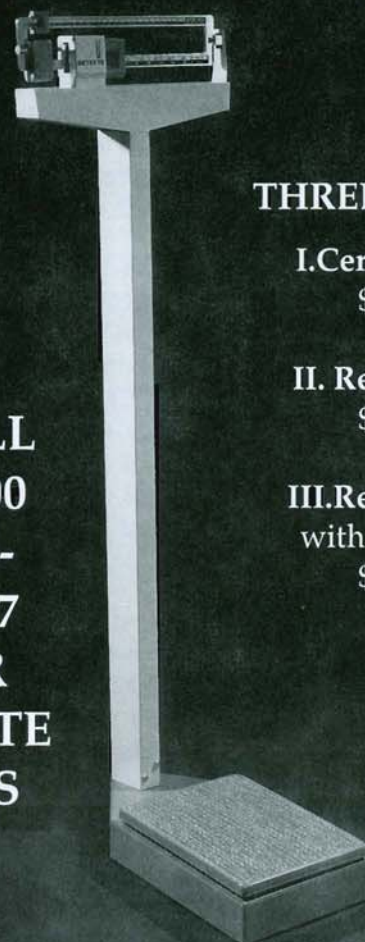
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