EXPLODING AT A HIGHER LEVEL

PLYOMETRIC BOX JUMPING

by **BROOK BOWEN**

Competitors in all sports, from football to tennis, from the Jr. High athlete to the professional, are continually searching for more efficient methods of training. Today's athlete, in order to win consistently must subscribe to the most effective methods of training to compete in the intense field of athletics.

An extremely important facet of athletics is the ability to be explosive, to get off the ball quicker and more powerful than the opponent. Squatting, benching, and the power clean build strength and power, but what is done to increase explosiveness- the get off the ball intensity that wins games? Practicing sprinting, "getting off the ball" drills, agility workouts, etc. do work, however, the maximum load on the muscle is the weight of the athlete. You wouldn't stop adding weight to a squat when you had reached your body weight, so why would you then do the same when working on explosiveness?

Plyometric box jumping along with other plyometric work such as hurdle jumping and medicine ball work, has been used by the Eastern Block countries for decades to improve agility and explosiveness. At first, only the track and field athletes used plyometrics because the quickness off the line makes the difference between winning and losing. Today coaches in all sports have realized and accepted the relationship plyometrics have with athletic performance and achievement.

To fully understand plyometrics, knowing how muscles work must be understood. There are two different types of muscle fibers — slow twitch or red fibers, and fast twitch or white fibers. Each of which have different contraction rates.

The red fibers are specialized for endurance and help build overall strength and are worked by running or lifting weights such as the squat. No matter how fast you try to squat, it's very slow in comparison to the response that can be created during a jump or similar activity. That's the difference between red and white fibers. Jumping uses the white fibers or fast twitch fibers. These fibers specialize in adding quick response maneuvers such as sprinting, throwing, or jumping.

In order to improve explosiveness the white fibers must be worked with the same intensity as with the red fibers. As stated earlier, the load on the white fibers, needs to be greater than our body weight in order for them to increase in size and responsiveness. It's known that by adding extra weight to a squat the results will increase, in the same way by adding plyometric box jumping to your workout the results increase, in this case explosiveness.

If I were to drop a rubber ball when it hit the ground, it would deform, and store energy gained from the drop. As the ball returned to its original shape the stored energy is released bringing the ball back up. Therefore the weight involved is not the important factor but the explosion, or quickness of the jump after contact with the ground is made. If the jump originates from a higher source the force placed on the jumper to keep him/her on the ground in greatly increased, this then places a greater load on the muscles, than could be achieved under "normal" circumstances.

The muscles reaction not only needs to have more power but must be quicker in order to get the athlete off the ground in the shortest time possible. Like the ball, the higher the fall the greater the result. This is where the plyometric boxes come into effect. However, if too much pressure is placed on the ball it will burst; the white fiber muscles are no different.

That is why Bigger Faster Stronger has created three different sets of plyometric boxes, a specific set for each "level". Here are a few simple guidelines to follow so that you will know which height would be the best for your program.

> "You wouldn't stop adding weight to a squat when you had reached your body weight, so why would you do the same when working on explosiveness?"

1. Like all lifts whenever technique falls the lift should stop. Poor technique doesn't develop the muscle the way it should be, but most importantly poor technique leads to injury. The best athlete is no good to a team if he/she is injured. Often when plyometric boxes get too high technique seems to disappear. Poor technique has never impressed anybody.

2. If the heel of the foot ever comes in contact with the ground the height of the box was too high or the amount of contacts was too many. When the heel comes in contact with the ground, the energy of the jump instead of being stored in the muscles to be immediately used for the jump back up, is violently distributed throughout the entire body. Not only does this destroy plyometric effect but it can really jolt your insides and cause injury.

The new BFS Super Plyo Box Set comes with six boxes

3. Getting off the ground as quick as possible is the key. Try to jump before contact with the ground is made. A good rule is — if the athlete is on the ground longer than a quick clap, then the box is too high or the athlete is too tired to get the proper effect. Be sure and stop before injury occurs.

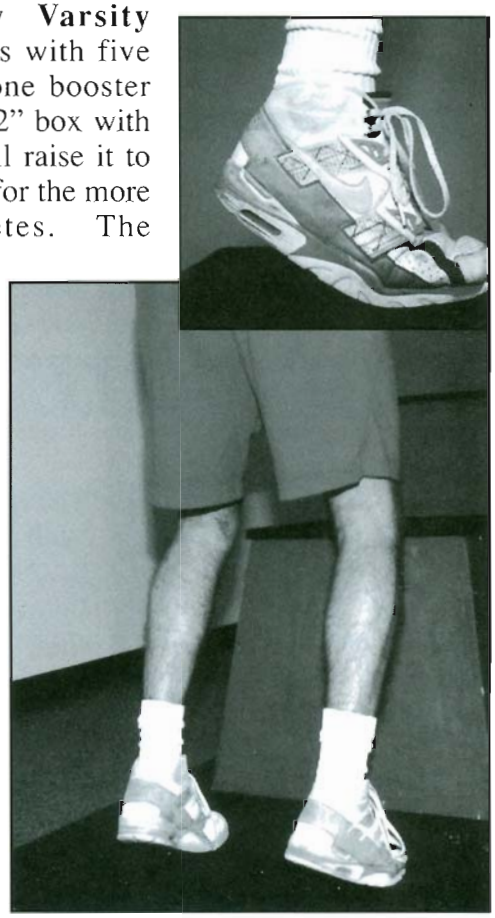
Workouts should be done twice a week with 38-58 contacts per session, and 10-15 contacts per set. An athlete could jump on and off boxes making hundreds of contacts per week quite easily. So remember studies have shown that after 38-59 contacts per week the white fiber muscles begin to fatigue and loss of technique results. When the white fibers slow down then so do you, and the explosiveness that's needed on the field or court is used up between boxes. Remember always work smart.

Test your athletes and see what set of boxes would fit your program the best. An upper limit coach wouldn't stop his athletes squats at 100 pounds, so why stop the explosiveness at ground level. Get Bigger Faster Stronger Plyometric boxes and learn to explode at a higher level.

The Readiness Set comes with three 10" boxes and one 20" box with a booster that raises the 20" box up to 24" or 26". Remember its not the height that is as important as the explosion off the ground. We realize that anyone can jump up 10" the key is being able to explode off the ground after a 10" drop. This set is recommended for junior high or beginning athletes.

The Varsity Set comes with three 20" boxes with one booster and one 32" box with a booster that will raise it to 36" or 42" for the more advanced athletes. This set is recommended for high school athletes. Because a workout consists of 12-15 contacts per set each athlete must go through the Varsity set three to four times to complete a set.

The New Varsity Super Set comes with five 20" boxes and one booster along with one 32" box with a booster that will raise it to 36" or 42" again for the more advanced athletes. The heights of the super set are the same as the varsity set but with the extra two boxes, athletes only need to go through the super set twice to complete a set. Giving a quicker and more beneficial workout.



Be sure that heels never come in contact with ground

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