

# Principles & Techniques of Improving Torso Strength

By Tom Cross  
1994 NSCA College  
Coach of the Year

Over the years I have observed a gradual but progressive decline in back strength. Athletes are often deficient in the development of their torso strength which is vital in transferring the forces from the lower extremities to the upper extremities. Strength radiates outward from the



center of gravity in concentric circles as with a bulls-eye target. Strength in this vital core area improves total body movements and is extremely important in injury prevention. The hamstrings and low back muscles work in concert with the abdominals to provide the strength, power, and posture for explosive athletic movements. The area is best trained by using total body athletic training. A reason this area is often weak is training where most of the movements are assisted, supported, or isolated. Also, a decline in the importance of physical education classes in schools correlates with declining torso strength.

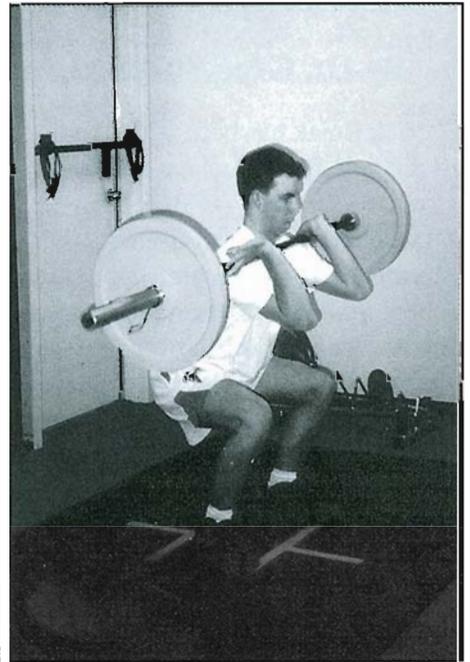
## First, let's examine some principles of back development

1. Use free weight while standing
2. Do supplemental back extension and glute ham work daily
3. Develop a mental process and "set" the back on all barbell exercises
  - a. Erect body with good posture
  - b. Inhale - Big - Expand the chest
  - c. Pinch the shoulder blades together (bend a nickel)
  - d. Tuck the chin IN, not down
4. Practice this "set" position often and use it when taking the bar from the floor and when returning the bar to the floor!

The athlete should follow this rou-

tine for all barbell exercises. It will provide for a rigid torso not only for squats and cleans, but also for presses of all types. Tucking the chin helps to lift and expand the chest. When tucking the chin, attempt to have the top of the head rise as you feel the chest rise. "Tuck the chin" does not mean to lower the head.

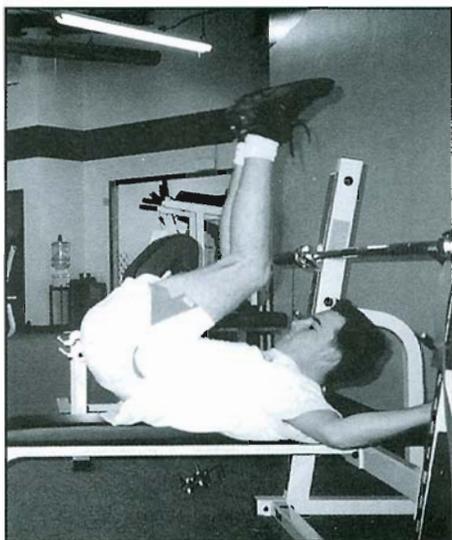
Always emphasizing the "set" position, we do a wide variety of closed chain exercises to help the athlete become focused on good back management. All types of squats contribute to back strength, and flexibility when done properly.



## Squats and Variations

(may be done with stick only during warm-up)

1. Front Squat
2. Split Squat
3. Walking Lunge
4. Back Squat
5. Snatch Squat
6. Pressing Snatch Squat
7. Dropping Snatch Squat
8. Snatch Squat/Press
9. Squat Presses
10. Good Mornings
11. Rumanian Deadlift
12. Pulls From Floor



**AB Specials on a Bench**

As strength and back management improves, move into more overhead training for additional back and torso development.

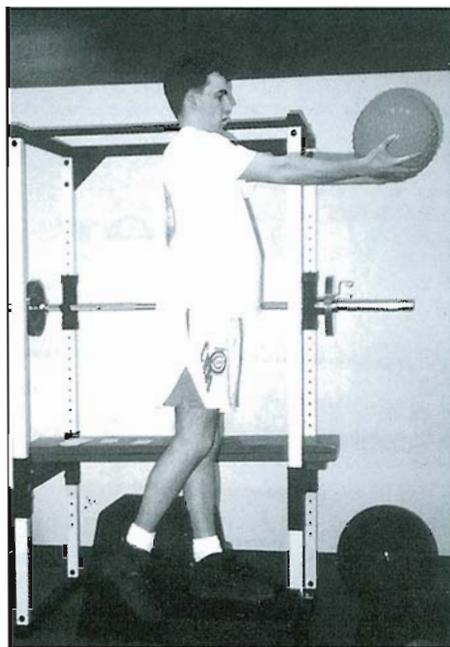
**Overhead Exercises**

(sometimes in combinations)

1. Push Press — Back/Front
2. Push Jerk — Back/Front
3. Split Jerk — Front/Back
4. Alternate Arm Dumbbell Press
5. Power Snatch
6. Classic Snatch

Finally, for the back, a good glute-ham device which is fully adjustable for glute-ham raises, back extensions, and abdominals of all types may be the best machine in your gym for the athletes. Also, provision should be made for reverse glute-hams and hypers.

Next, we stated at the beginning that hamstrings and low back muscles work in concert with the abdominals to strengthen the total torso. All of the closed-chain exercises listed are beneficial in training the abdominals, especially the overhead work. In doing supplemental abdominal isolation training, there is one change

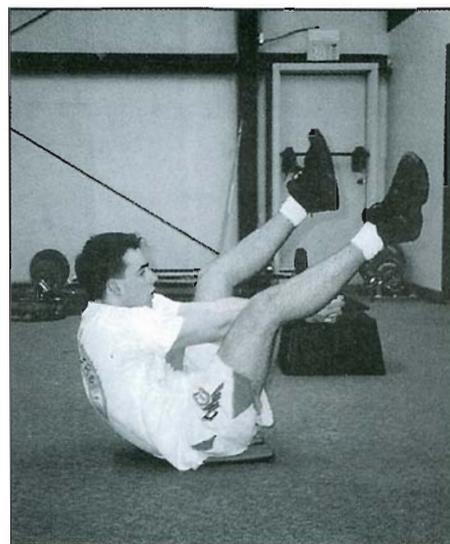


**Medicine Ball Step-Ups Tighten All Torso Muscles**

**The basic concept to back management is with abdominal exercises, head forward, chin out: everything else is tall, good posture, with chin tucked in, not down.**

made from the back “set” position. We now want to round the low back so we do not tuck the chin, but pull the head and chin forward to assist the rounding.

The basic concept to back management is with abdominal exercises, head forward, chin out, everything else is tall, good posture, with chin tucked in, not down.



**The AB Thunderbolt**

In addition to many variations of crunches, sit-ups, and leg lifts, medicine ball training is highly effective for the rotational demands on the abdominals. Also, we do head-stands, hand-stands and medicine ball throws with the feet.

Finally, talk with the athletes about their strengths and weaknesses and continually encourage them in back management concepts. You will see them getting the total picture, improving and helping each other, which helps to make a positive atmosphere in the weightroom.

A great many excellent coaches in the NSCA have contributed to these ideas. I must especially thank Mike Stone for his continual support, and Johnnie Parker for his inspiration in developing ultimate abdominal and back training programs.

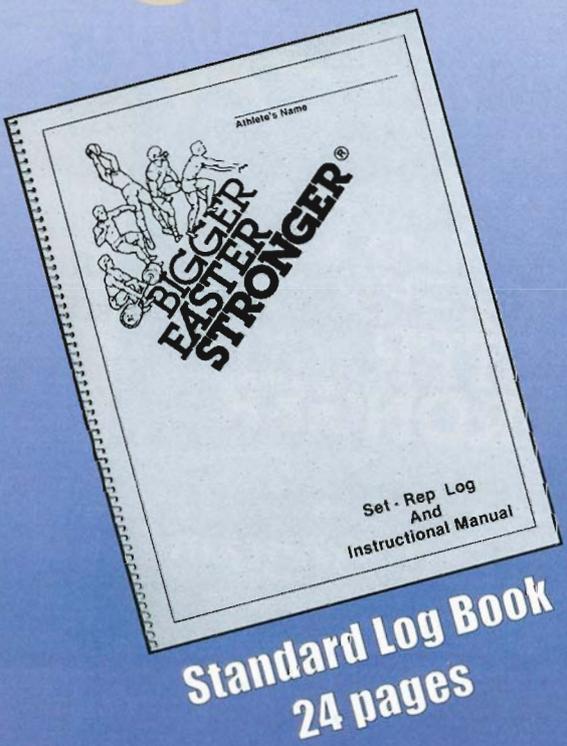
**Editorial Note:**

From the large variety of exercises listed the coach should select 3 or 4 which fit the needs of the athlete and the training atmosphere. Specialize on them to the point of perfect technique. Questions may be directed to Coach Cross at (918) 355-4142...□

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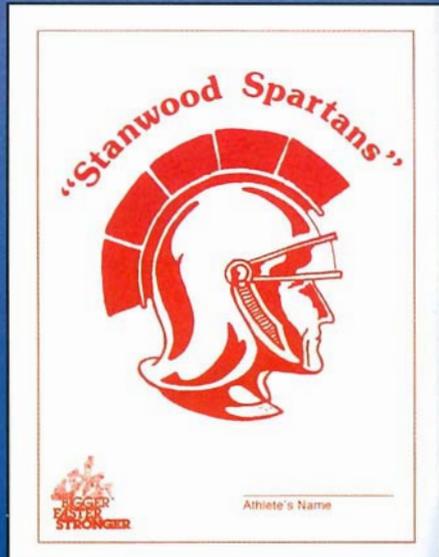
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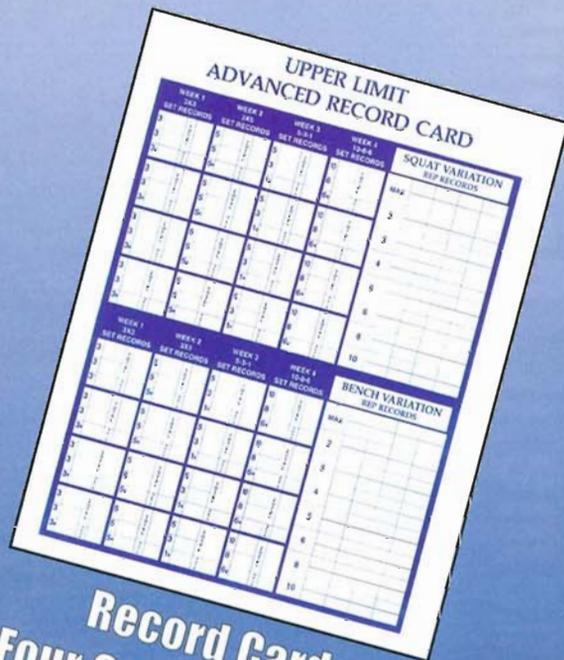
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