Teaching Techniques #8:

The glute-ham raise

1. When instructing proper exercise technique for the glute-ham raise exercise, list some common technique errors observed in the beginner.

Roll: Not placing the knees properly behind the thigh support is a common error. Placing the weight on the thighs may not be a comfortable position when learning the movement, but it will become more acceptable with use.

Another error is not insuring that weight/pressure is being felt on the bottoms of the feet.

If the apparatus has adjustments, it should be properly fitted to the individual using it. Too often athletes jump in after someone else has used the apparatus without making adjustments.

In the initial movement upward, the rigidity in the trunk should be maintained to insure the hamstrings are being utilized. Too often the straight line from the knees to shoulders is lost in the initial movement. The knees are dropped and the trunk stays parallel to the floor, eliminating the desired effect on the hamstrings.

Madden: Two of the common technique errors observed in the beginner while using the glute-ham raise are a tendency to make jerking motions and snatch the body upward instead of having a smooth, solid reaction drive with a slight pause at the completion of each repetition.

Kennedy: Common errors include:

a. Not completing the pull with the hamstrings to the point of 90 degrees at the knee joint.

b. Bending the knees too early and sliding down the thigh pad.

c. Swinging the upper body quickly, generating momentum and taking stress off the hamstrings.

d. Improper adjustment of the apparatus (foot support in relation to the thigh pad).

e. Arching the lower back.

f. Not keeping the upper body in line with the hips.

2. Are there any special safety and/or spotting considerations for the beginner learning the glute-ham raise exercise?

Madden: There are a few special safety and spotting considerations for the beginner on the glute-ham raise exercise. First, the exercise, like any other exercise, should be demonstrated by the strength and conditioning coach or a qualified assistant. For the beginner, the exercise should be supervised until it is sufficiently mastered. Most good glute-ham raises have guide handles on both sides to aid the user, and also a heavy duty safety plate for the feet. As a coach, you
can stand on the side of the apparatus and guide the athlete through the range of motion with your hands, as would a gymnastic coach.

**Kennedy:** Special considerations include:
a. Make sure the apparatus adjustments are locked in place and tightened.
b. The foot support must be adjusted correctly to keep the thighs from sliding down the pad.

**Roll:** Making sure the feet and heels are secure and unable to slip out is important. You also need to be sure the athlete has the strength level necessary to do the exercise properly.

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### Coach’s Checklist

#### The Glute-ham Raise

- Athlete will be facing down on a glute-ham raise bench
- Position legs so that your knees are slightly below the thigh support pad and so that the pad is actually hitting your thighs
- Athlete’s body will form a right angle in starting position with hips over the thigh pad
- Begin by raising your trunk until your whole body forms a straight line (as in a hyperextension)
- Head is facing forward or slightly up
- Hands can be placed on each side of your head or crossed at your chest
- Once your body is parallel with the floor, pull with your hamstrings (bend your knees) until you are at the top position (45 to 90 degrees from the floor)
- Lower yourself slowly and repeat
- Make sure you reach a parallel position with the floor before bending at the knees
- Your head (trunk) should always raise up and back—do not “drop your hips”

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3. **Are there any pre-requisite strength or skill requirements before beginners should include the glute-ham raise in their workouts?**

**Kennedy:** There are no strength requirements to start the glute-ham raise, but because of the difficulty of the exercise, an alternate hamstring exercise should be incorporated until the athlete has reached the desired number of sets and repetitions.

**Roll:** This exercise is at least an intermediate to advanced exercise. Very few athletes are capable of completing this movement at a proper speed and with proper form without some preparatory work. Leg curls, stiff-legged dead lifts, standing leg curls and back extensions may be used as lead-up exercises.

**Madden:** The only prerequisite for the beginner in using the glute-ham raise is a good warm-up, such as jogging an 880, jumping rope three to five minutes or cycling five minutes, and a good stretch such as PNF or static stretching.

4. **Are there any particular instructional methods you have found helpful when teaching the glute-ham raise to your athletes?**

**Roll:** I believe proper speed of movement (slow and controlled with a short isometric contraction
on the end/top of the movement) is extremely important, as well as all the considerations I mentioned in questions 1 through 3. There may be some discomfort experienced on the quad just above the knee when learning the movement.

Madden: While teaching the glute-ham raise, I have found it helpful to explain to the athlete that you must be in a natural position and concentrate on the area being developed. You should feel the pull through your glutes, hamstrings and lower back.

Kennedy: One must be able to demonstrate the glute-ham movement, because the athletes have some difficulty grasping the movement itself or the range of motion the exercise requires.

Some key teaching points:
a. Pushing the thighs into the pad to keep the athlete from sliding down and aiding with the pull of the hamstring.
b. Showing the athlete the angle he or she is reaching, rather than the 90 degree angle desired.

5. Would you suggest this exercise as a good intermediate exercise leading to the more advanced back hyperextension from an apparatus?

Madden: Yes. This exercise is a good intermediate exercise leading to more advanced back hyperextensions such as weighted hyperextensions and good morning back strengthening exercises.

Kennedy: No. I feel the hyperextension would be a good intermediate exercise for the more advanced glute-ham raise.

Roll: It has been my experience that the glute-hamstring movement done properly is more difficult than the lower back extension. We use the extension as a movement to strengthen the lower back and the upper glutes for squats. These must be done slowly, with an isometric contraction at the end for a five-count. There is also some strengthening of the hamstrings. The extension serves as a lead up for the glute hamstring movement and puts all the isolation movements together.

6. What have you found to be the main benefit of using this exercise with your athletes?

Kennedy: The main benefit is superior hamstring strength development, which cannot be achieved with the leg curl.

Roll: I feel this exercise is extremely beneficial in two ways. It provides an angle of work that the hamstrings are unaccustomed to. It also allows the hamstrings, lower back and glutes to work in conjunction with each other.

Madden: There has not been enough emphasis put on hamstring and lower back development in the past. The glute-ham raise helps to bridge the gap between the hamstring-quadriceps ratio, which has been found to have a tremendous significance (sometimes 5:1 in high school athletes). The glute-ham raise promotes injury prevention while strengthening the glutes, hamstrings and lower back. Since incorporating the glute-ham raise into our daily workout at the University of Colorado, we experienced no hamstring pulls during the 1989-90 football season.