The High-Pulley

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A very popular piece of equipment in most strength programs is the high-pulley station. Almost all of the popular multi-station weight machines include the high-pulley as part of the equipment. Individual free-standing or wall-mounted stations can also compliment the available weight training equipment. The popularity of the high-pulley is due in part to its versatility. Many unique but important exercises utilize this machine.

For proper use of the high-pulley, the strength coach must check for the following:
- All wall-mounted units must be securely anchored. Even the slightest looseness in any of the mountings requires that the machine be re-attached. With many exercises, very high poundages can cause the loose attachments to come completely out.
- Watch for frayed cables and loose cable attachments. Once fraying starts, the machine should not be used until the cable is replaced. Be careful--frayed cable is very sharp! All U-bolts should be checked periodically to be sure all attachments are secure.
- Some units are equipped with a T-bar to anchor the athlete as he or she exercises. If used, this must be attached firmly to the floor or base of the machine.
- The high-pulley should be frequently lubricated. The action of the machine should be smooth and even. Be sure all pulleys line up with the cable. This will avoid unnecessary wear on the pulleys.
- Be sure the weight stack is heavy enough. Some of the exercises done with this machine require relatively heavy poundages. By limiting the size of the weight stack, you may keep some of your larger or stronger athletes from completely utilizing the machine.
- Detachable handles should be used to allow for a wider range of exercises. Several of these will be described in the following exercises.

Latissimus Dorsi Exercises

Wide Grip Pull-downs - This is the exercise most commonly associated with the high-pulley. These can be done either kneeling, sitting on the floor, or sitting on a bench. The bar can be pulled either to the upper chest or to the base of the neck. The bar should be gripped as wide as is comfortable, preferably near the ends. Be careful not to use too much body motion when doing this or any pulling motion.

Narrow Grip Pull-downs - With this exercise, the bar is gripped about shoulder width or narrower. Either a palms-away or a palms-facing grip can be used. As before, the bar is pulled to the upper chest.

Close Grip Pull-downs - This exercise utilizes a special handle which allows the hands to face each other. The motion is very similar to the narrow grip pull-downs, but the hand position is different.

Figure 1. Wide grip pull-down

Figure 2. Narrow grip pull-down
**Straight Arm Lat Pull-downs**
Proper form is important with this exercise. The athlete should not be concerned with using heavy poundages. Depending on the height of the high-pulley station, this exercise can be done either standing or kneeling. A shoulder-width grip is used, along with a slight bend at the elbows. The bar is taken in a wide arc from over the head to below waist level. A controlled, steady pull is recommended.

**Tricep Exercises**
**Push-downs** - Using the straight bar, a number of grip widths can be used. The elbows are kept by the sides and should be motionless throughout the exercise. The bar should travel in an arc from the upper chest to full extension below the waist. A number of variations can be used by changing the handles used (i.e. V-bar, knotted ropes, etc.).

**Reverse-Grip Push-downs** - This exercise is just like the previous one, except the grip is reversed, that is the palms face up. By using a small revolving handle, one arm may be done at a time.

**Bicep Exercises**
**Lying Curls** - The biceps are difficult to isolate with the high-pulley, but there is one exercise that some athletes like to use as an alternative to their regular arm routine. The athlete lies in a supine position on a bench with his head toward the weight stack. Using a straight bar, the athlete pulls the bar to his forehead and then fully extends the arms. This is a little bit like a concentration curl. While this exercise is somewhat awkward to set up, it shows what a little ingenuity can come up with.

**Abdominal Exercises**
**Crunches** - These can be done with the athlete kneeling and using a knotted rope handle. With arms bent, the athlete pulls the handle down to just above head level. Then, the athlete pulls down on the handle by curling up into a tucked position. No arm action should be used.

**Chest Exercises**
**Cross-overs** - A small revolving handle is used for this exercise.
action is the same as for cross-over cables, except only one side is done at a time. The athlete can vary his position to achieve the desired results.

Remember, with any of these exercises it’s very important to utilize a full range of motion. Unfortunately, many athletes fail to do so with many pulling motions. If high repetitions are being used, it may be beneficial to use wrist straps to help secure a good grip. When poundages approaching body weight are being used, it may help to have a partner hold the athlete down on some of the exercises. This can either be done by pushing down on the lifter’s shoulders, or by holding them down by the weight belt. Some people may experience pain in the wrists when they do push-downs. An alternative would be to use a thumbless grip which often allows the wrist to be kept straight.

As you watch your athletes use the high-pulley station, you will no doubt come up with a few ideas of your own.

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