Teaching Techniques #13:

Dips

1. When teaching proper exercise technique for the dip exercise, list some of the common technique errors observed in the beginner.

Hurd: Some common technique errors that occur with the dip exercise are:
   a. Too much upper torso lean.
   b. Either too much or not enough depth on descent.
   c. Elbows pointed out from body.
   d. Not raising the body high enough to allow for full arm extension.
   e. Too much body swing or kicking of the legs while lowering and raising the body.
   f. Forward rounding of the shoulders (too much forward shoulder tilt).

Goldenberg: Beginners often fail to achieve full descent in the dip, resulting from a lack of flexion in the shoulder and elbow joint. They obtain only 20 to 30 degrees of movement at the elbow, then adduct and elevate the shoulder blade to assume or feel that they have descended far enough. This is usually caused by a lack of strength. Beginners may also descend very quickly in an attempt to bounce out of the bottom position to reach the top. This is dangerous, as the athlete is not in control of the movement. The stress placed on the shoulder joint is great, perhaps leading to serious injury. Athletes not familiar with this exercise also tend to swing their bodies attempting to return to the top position.

Bliss: The most common error made by beginners is failing to go through the full range of movement. The beginner “short arms” the exercise and lowers the body to an angle less than 90 degrees. Another common mistake beginners make is not controlling their body weight when lowering themselves. They lower themselves too quickly, and attempt to rebound into the extended part of the exercise.

Another common error is swinging back and forth in an attempt to make extra repetitions. All of these beginning mistakes can be dangerous and limit the effectiveness of the exercise.

2. Are there any special safety and/or spotting considerations for the beginner learning the dip exercise?

Goldenberg: Spot the dip from behind. The hands should be placed on the hips and waist of the trainee. From this position, the athlete may be helped up from the bottom position, and swinging movements may be restricted.

Bliss: All varsity athletes and strength training students have a spotter when performing their dip and chin exercises. A spotter can insure their safety and verbally encourage them. The spotter also can help them accomplish extra, forced repetitions.

Hurd: I have found the following safety tips helpful in preventing injury while performing the dip exercise:

Keep body as erect as possible. If there is too much forward lean, the athlete can fall into the dip bar or support apparatus when muscle fatigue or failure occurs.

Do not lower the body below the point of 90 degrees elbow flexion (upper arm parallel to the floor). This can cause joint pain and injury to the shoulder.

It is important that the body be raised high enough for full elbow extension, but not to the point of over-lock or hyperextension of the elbow joint. Controlled speed of movement will keep the athlete from ballistically locking the elbows.

Keep knees bent at a 90 degree angle with ankles crossed. This promotes better body control and keeps athletes from kicking their
feet to aid in raising the body. This may lead to injury not only to the athlete performing the exercise, but also to the spotter.

I have found the following tips helpful for spotting the dip exercise:

The spotter grasps the athlete at the crossed ankles. The spotter is responsible for aiding the athlete in body control and balance and assisting in a controlled lowering and raising of the body. Two spotters can be used, one on each side of the athlete's legs. The spotter helps the athlete move in a vertical plane, assisting the movement but not forcing them forward.

The athlete should always exit the dip apparatus safely. Athletes who dismount by pushing themselves backward in an exaggerated manner risk injury to the spotter as well as to themselves.

3. Are there any prerequisite strength or skill requirements before beginners should include the dip in their workouts?

Bliss: Students are not allowed to do dips until they have the strength to effectively control their body weight on the dip bars. Beginners will do tricep extensions and other accessory lifts in preparation for dips. After they have mastered this phase, they do negative dips to strengthen their body control. After mastering negative dips, they proceed to a positive and negative dip.

Goldenberg: There are no prerequisite strength or skill requirements for beginners. But there are strategies that may be used with those who have difficulty performing one complete dip. Although an athlete may not be able to perform the concentric (raising or positive) portion of the dip, in most cases they can perform the eccentric (lowering or negative) portion in good control. Two to three sets of negative reps in the eight- to 10-rep range is sufficient. As eccentric strength increases, it will positively affect concentric strength. Soon, complete dips will be possible. Helping the athlete from the spotting position is another aid to completing full dips. Using isometric contractions is a good way to strengthen certain angles or sticking points the athlete is having trouble getting through. Using boxes of different heights, have the athlete step up, hold five to six seconds, then push up. Try this for eight to 10 reps. Start by working on the top third, then the half-way point, then the bottom third of the exercise. The athlete will soon develop the strength for a full range of motion dip.

Hurd: The prerequisite strength or skill requirement for beginners is the ability to balance themselves in the proper starting position. Novice lifters can include dips in their workouts if they have been taught proper technique and have access to an experienced spotter.

4. Are there any particular instructional methods you have found helpful when teaching the dip exercise to your athletes?

Bliss: Keep wrists straight: a firm grip on the dip bar keeps the wrists straight and the body in control throughout the exercise.

Goldenberg: Keep head up: this helps main-
tain an erect posture.
  Keep the chest spread.
  Squeeze scapula bones toward each other.
  Keep elbows close to the sides of the body.

**Goldenberg:** Another important instructional method involves controlling the speed of movement, especially during the descent. Try to get the athlete to breathe properly, exhaling during the ascent, slowly inhaling during the descent. Another method is counting at least three to four seconds for the descent.

The shoulder girdle should be stabilized to eliminate excessive elevation of the scapula. The beginning stage of the movement should not look like a shoulder shrug. Checking form in a mirror may help. Remember there is some movement in the shoulder girdle during the exercise, most notably a downward rotation of the scapula.

**Hurd:** It is important for athletes to be strong in relationship to their body weight. Using body weight for resistance is an excellent way to gauge and develop strength in relationship to body weight. An athlete who can perform numerous repetitions of dips will develop not only muscular strength, but muscular endurance, in addition to strengthening the joints of the upper body. This is the main benefit of dips, in addition to isolating the triceps, deltoids and pectoral muscles for achieving desired upper body strength.

**Bliss:** Demonstration is an effective instructional tool. Students who see a dip done properly learn the exercise more quickly. Written instructions and illustrated techniques are important supplements to live demonstration.

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

**Goldenberg:** The main benefit of the dip for hockey players is that hockey is a pushing game. Development of the tricep, pectoralis and anterior deltoid is important for movements in hockey. In addition, the dip is an important exercise for injury prevention. That is why I recommend going a little deeper in the bottom position, working the extreme range of motion. The shoulder joint takes quite a pounding in hockey from falls, collisions with players and with the boards. It is in these instances where strength development, using the dip in the extreme range of motion, is helpful.

**Jeff Hurd**

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This allows the opening of the shoulder joint to move downward. Athletes are told to keep their elbows in from the start of the movement, which insures that the elbows point backward during and at completion of the descent.

Athletes having no history of shoulder problems are allowed to