Teaching Techniques #6:

The push press

1. When instructing proper exercise technique for the push press, list some of the common technique errors observed in the beginning or novice athlete.

Pyka: Whenever overhead lifts are performed, balance is of the utmost importance. Therefore, proper body position is crucial for a safe and effective lift. The most common errors that jeopardize a technically correct push press are:

A. Poor racking of the bar—keeping the elbows low during the support phase and the descent phase of the push press can put extra stress on the arms and back. Also, it can make balance difficult by causing the bar to be over the toes rather than the heel-arch of the foot.

B. Rounded back—this can also be a direct result of poor elbow position.

C. Weight over toes rather than heel-arch—a poor rack of the bar can contribute to this.

D. Poor head position—look straight ahead, not up or down.

E. Poor foot position—many times a beginner will perform this exercise with his/her feet either too close together or too far apart. This usually results in poor balance. A comfortable, shoulder-width stance with toes pointed slightly outward is recommended.

Oviatt: 1. Knee bend is either too deep or too shallow. We recommend a 20 to 25 percent range of motion.

2. The bar drifts either forward or backward once the lift has been locked out.

3. The arms don’t work in unison as the weight is pressed overhead.

4. The ballistic movement of the weight is insufficient (bar speed too slow).

5. Hyperextension of the lower back.

6. Grip and foot spacing. Feet and hands are either too narrow or too wide.

7. Inadequate lock out time. We require all overhead lifts to be held in a locked out position for two seconds.

Barksdale: A. Leaning for-
ward with the shoulders or pushing the hips too far back. The coach should remind the athlete that his or her trunk should remain straight up and down.

B. The lifter tightening his or her grip and arms so that the bar does not "ride" on the chest and shoulders. The athlete should be reminded to keep the grip loose. This can be done by tapping the athlete on the hand or arm.

C. Dipping too far, or not far enough. The coach can use the pins of the power rack to correct this. The athlete knows when he or she has reached the correct depth by setting a limit pin.

D. Incomplete extension of the body.

E. Wrist, elbow, shoulder and hip not in the same line. The athlete can get the best feel of this position by doing presses behind the neck.

Graffis: The most common technique error when performing the push press is allowing the hips to shoot back during the descent or dip. This action tends to place the bar too far in front of the lifter’s center of gravity, making it extremely difficult to press and/or catch the heavier weights. This may be attributed to the beginning lifter descending too quickly. The descent must be performed in a controlled manner.

Another problem associated with the push press is the inability of the lifter to reach full extension as he/she drives the weight upward. In the effort to press and catch the weight in an overhead position, the beginning lifter usually will cut short the extension of the legs and hips by dropping the center of gravity too quickly. In order to maximize the power generated from the legs and hips, full extension must be achieved before the lifter begins to press the weight.

One final problem experienced by the beginning lifter when performing the push press is not bringing the head through as the weight is caught in an overhead position. Bringing the head through will place the weight over the center of gravity, thus offer-

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**Coach’s Checklist**

**The Push Press**

**The Start**

- Take bar from supports or power clean to a position on the anterior deltoids above the clavicles
- Use an even, pronated grip that is slightly wider than shoulder width, with thumbs around the bar
- Elbows are below and in front of the bar
- Stance is approximately shoulder width
- Torso remains upright, straight and rigid throughout the exercise
- Head is tilted slightly back to allow the bar to pass unimpeded

**The Ascent**

- A slight dip is initiated by bending the knees and hips while the torso remains upright (movement is straight down)
- Keep the body weight on the balls and heels of the feet
- With no pause at the bottom of the dip, the legs are forcefully extended, going up on the toes (movement is straight up)
- With the aid of the leg drive, the bar is pressed overhead until the arms are fully extended
- The bar will finish directly over the head of the athlete

**The Descent**

- The bar is returned to the starting position under control

**Breathing**

- Inhale before dip is initiated, hold breath during the dip and leg drive, and exhale as the bar is locked out overhead (positioned slightly behind the ears)

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ing greater stability as the arms are securely locked and the lifter recovers to the standing position.

**Foran:** 1. Unstable base of support caused by a too-narrow stance instead of a solid athletic stance.
   2. Uneven hand position on the bar.
   3. Uneven pressing movement.
   4. Excessive arching of the back instead of an upright position.
   5. The bar being pushed up and forward, instead of straight up.

2. *Are there any special safety and/or spotting considerations for the beginning athlete learning the push press exercise?*

**Oviatt:** 1. All lifts are spotted from behind.
   2. Collars on the bar at all times.
   3. We start all beginning lifters with an unweighted olympic bar (45 pounds).
   4. We start all lifters pressing the weight from behind the neck. This places the workload more in line with the body’s center of gravity, and reduces stress on the lower back.
   5. Bar preferably taken from a rack at a set height. It should never be cleaned and then lowered behind the head.
   6. Weight belts for torso support. Our goal is to gradually wean the lifter from using a belt as his or her lower back/torso strength increases.
   7. An individual checklist evaluation is performed on every athlete for form and technique before workout poundages are increased.

**Barksdale:** Safety considerations I employ include:

A. The beginner must use light weights until the technique skills of the lift have been mastered sufficiently.
B. The use of the power racks can help the beginner to feel confident so that he or she can concentrate on proper technique.
C. The use of collars prevents weights from sliding around and possibly off of the bar.
D. The appropriate number of spotters in place and alert.
E. Proper warm-ups and stretching.

**Graffis:** Basic safety considerations for any platform exercise include: (1) use of a lifting belt to support the abdominal wall, which in turn will offer greater stability in the low back area and (2) use of collars to secure the weight to the bar.

We never use spotter(s) for the push press or any platform exercise. The individual performing the push press is taught to never attempt to save the lift. If they ever lose control of the lift, they simply let go of the bar. I would also encourage the beginning lifter to start with a light weight and perfect the technique involved with the push press exercise before progressing to a heavier weight.

**Pyka:** A. All lifters should wear a lifting belt, especially when doing overhead exercises such as the push press.
B. When spotting the push, two spotters should be used, one on either side of the weight.
C. Use light weights until the movement is mastered and the effective muscle groups are strong enough to handle more weight.
D. After the elbows are locked-out at the top of the lift, the bar should be returned to the starting position, using the legs to help absorb the weight. The back should remain straight and tight throughout the exercise.

"The beginner must use light weights until the technique skills of the lift have been mastered."

—Barksdale
3. Are there any prerequisite strength or skill requirements before the beginning lifter should include the push press in his or her workout?

Barksdale: We use a series of presses and squats to aid in the strength development of the lifter.

Presses:
- Bench press
- Incline press
- Seated military press
- Seated behind-the-neck press
- Standing military press
- Standing behind-the-neck press
- Squat military press
- Squat behind-the-neck press

Squats:
- Back squats + ¼
- Front squats + ¼
- Back lunges
- Front lunges
- Back split squats
- Front split squats
- Stiff-legged deadlifts
- Leg curls
- Heel raises

Graffis: Since the push press is a multi-joint exercise, adequate muscular strength in the areas of the legs, hips, buttocks, shoulder girdle, arm, abdomen and low back are essential in performing this lift. Basic skill requirements should be perfected by the lifter before he/she progresses to a heavier weight.

Foran: An adequate, total-body strength base is a prerequisite for an advanced exercise like the push press.

Pyka: A. Flexibility is fundamental in a lift such as the push press. Exercises that help wrist, elbow and shoulder flexibility should be practiced often.
B. Dumbbell presses and behind-the-neck presses are good auxiliary exercises to help improve the push press.

Oviatt: 1. We place a great emphasis on hip, thigh, leg and lower back strength. We train these muscle groups at least four days per week. Our lifting program at OSU is almost predominantly explosive movements. We consider the push press to be a basic foundation of all our ballistic overhead lifts.

We vary the grip spacing on our pure strength overhead lifts in order to strengthen the shoulder from as many angles as possible (snatch grip, clean grip).

“The individual performing the push press is taught to never attempt to save the lift.”
—Graffis

We also incorporate lifts such as snatch squats and snatch lunges, which isometrically strengthen the arms and shoulders, while at the same time acclimate the same muscle groups to a locked out position.

Since strength is the foundation for all ballistic type movements, we evaluate each athlete’s strength level individually before having them perform speed-type, multi-joint movements. Weaknesses are then identified and corrected.

All athletes are tested on hip/thigh and shoulder flexibility.

4. Are there any particular instructional methods you have found helpful when teaching the push press to your athlete?

Graffis: The ability to demonstrate the lift in its entirety and then break it down into an easy-to-learn
sequence is important when instructing young athletes to perform not only the push press but any sport-related skill. We also videotape our athletes frequently to offer immediate feedback when learning correct lifting technique.

Foran: Demonstrations and the use of videotape have been effective.

Pyka: A. When taking the bar off the rack, the feet should be directly under the bar.

B. The bar should be racked high, across the clavicle, with the elbows pointing straight ahead, not down.

C. The body weight should be distributed over the heel-arch of the foot, not the toes.

D. When bending the knees during the descent phase, the knees should remain over the toes.

Oviatt: 1. We do quarter-squat plyometric jumps in order to empha-