Equipment Utilization:

The cambered bar

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The cambered bar is a specialized piece of weight training equipment popular with many power athletes. The bar is most commonly used for bench pressing, as its distinctive U-shape (camber) allows for an increased range of motion in the shoulder joint. Regular use of the cambered bar often produces gains in strength upon returning to conventional straight bar usage.

What some strength and conditioning coaches may not know is that the cambered bar can be used effectively in a number of other exercises, including barbell shrugs and bench rows. When used correctly during these exercises, the cambered bar may offer improved comfort, safety and range of motion. These alternative uses make the cambered bar a valuable strength training tool.

Before the advent of the cambered bar, range of motion in the bench press was limited by the straight bar making contact with the chest and obstructing further descent. It seemed that the only way to overcome this problem was to use dumbbells in place of the olympic bar. However, the task of handling extremely heavy dumbbells can prove troublesome in itself. Loading, unloading and balancing heavy dumbbells can potentially compromise form and safety, especially without the use of spotters.

There is another option available for increasing bench pressing range—the cambered bar. By evenly gripping outside the camber and keeping the camber itself in an arching or upright position (Photo 1), the bar is allowed to descend approximately four inches below chest level (Photo 2). The cambered bar effectively allows for increased range of motion without forfeiting the safety and control of an olympic bar.

Regular use of the cambered bar stretches and strengthens the anterior deltoid and pectoral muscles through a segment of joint movement that is not addressed through regular flat benching. Used as a source of variation in training, cambered benches may assist athletes in overcoming strength plateaus. This exercise may be especially helpful to those athletes who lack strength in the lower portion of the bench press.

There are three important safety considerations in performing cambered benches:
1. Always have a spotter watch over the movement.
2. Move the bar in a slow and deliberate manner. Do not bounce the bar off the chest.
3. Invariably, lighter weight will be required for cambered benches. Approach cambered bench pressing as a new exercise; begin with light weight, use controlled movement and progress gradually.

Although originally designed for bench pressing, informal experimentation with the cambered bar has given rise to other popular uses. One such use is cambered bar shrugging. Like the bench press, using the cambered bar for shrugs combines the freedom of movement native to dumbbells with the control that is characteristic of the olympic bar. To perform the exercise the bar is gripped on the...
Photo 1. Grip the bar evenly, keeping the camber upright.

Photo 2. Lower the bar until the camber touches the chest.

Photo 3. The camber allows an upright posture.

Photo 4. The camber prevents the bar from rubbing against the lifter.
outsides of the camber, with the camber to the front. Using the cambered bar instead of the straight bar lessens the tendency of the lifter to bend forward, allowing the lifter to maintain a more comfortable posture (Photo 3). Also, unlike the straight bar, the cambered bar does not rub against the thighs or groin (Photo 4).

There is one problem that might be encountered during cambered shrugs, especially when using heavy weights. The strain of the loaded plates causes the bar to bend, resulting in an upward rotation of the camber itself. This situation can negate much of the benefit of the exercise, as well as make gripping difficult. Using gripping straps (wrapped under the bar first) can help counteract this rotating effect.

Another excellent exercise for the cambered bar is bench rowing. This exercise effectively works the latissimus dorsi muscles, without putting excessive strain on the lower back. When a regular straight bar is used, the bar is obstructed by the bottom of the bench before a full and natural range of motion is attained. This problem is solved by using the cambered bar. First, grip on the outsides of the camber keeping the camber itself pointing in a downward direction (Photo 5). Then, pull the bar upward toward the body until the bottom of the camber makes contact with the bottom of the bench (Photo 6).

The choice of using the cambered bar in place of the olympic bar should reflect the special needs of the athlete as determined by the coach. The weightroom can be fertile ground for imagination, as well as hard work. It is therefore not surprising that a piece of equipment like the cambered bar can be used effectively in such a variety of ways. Other creative uses for the cambered bar include shoulder presses, deadlifts and bent-over rowing. The possibilities seem limited only by the imagination.

Photo 5. Grip the bar evenly, keeping the camber pointed down.

Photo 6. Raise the bar until the camber touches the bottom of the bench.