

the **CrossFit** JOURNAL ARTICLES

Dumbbells From the Plank

How to Energize your Push-up Training, Part 1

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This installment in my dumbbell moves series will examine how dumbbells can be integrated into exercises from the plank position that range from fairly basic movements to more challenging and even extreme ones.

Incorporating the plank position into your movement pool is a smart choice for athletic conditioning. Electromyography (EMG) work at the University of California at Sacramento has recorded higher electrical activity of the entire ab and other core stabilizers in the plank as compared to other abdominal conditioning movements. In this day and age, most trainers recognize the significant contribution the core plays in performance. The cliché that any chain can be only as strong as its weakest link certainly applies here.

Adding a dynamic element into the plank with dumbbells takes planks to another level of challenges and athletic requirements.

Prerequisites; or, keeping the horse in front of the cart

Before you incorporate dumbbells, though, you must have the ability to establish a sound plank position with your body, and then to do a full push-up with good form. The plank or position is the top of the push-up: facing the floor, supported only on the toes and hands, with arms extended and hands on the deck anywhere from shoulder width apart to slightly (about the width of one hand) outside the shoulders. The hands should be aligned so that a straight line from one thumb to

the other would intersect with the nipples. The legs are extended back and straight, the feet are flexed up (ankles dorsiflexed), and a portion of the body weight is on the toes. The middle of the form (the “core”) is tightened and the body drawn into alignment. The ear, shoulder, hip, knee, and ankle should all be points on a single straight line.

The second prerequisite for incorporating dumbbells into the moves is the ability to execute sound push-up mechanics. Taking it from the plank position established earlier, the athlete will bend the arms and lower the straight tight body to just above the deck, maintaining a solid midsection. When done properly, the nose, chest and hips just barely strike the deck at the same moment. A good measuring stick for gauging and enforcing the integrity of the plank is to place a pole on the athlete’s back so that it makes contact with the head, shoulder blades, and hips at all times during the **move**. The stick will ride down evenly and maintain these contact points and a solid, balanced position on the athlete’s back when posture is maintained correctly.

The rest of the push-up standards are described and depicted in issue 7 (March 2003) of the *CrossFit Journal*, including a handy “Cheater’s Guide to Lousy Push-Ups,” which lays out eight common push-up flaws—all of which must be remedied before incorporating dumbbells into plank movements: sagging, piking, resting, bouncing, yogaing, reaching, speeding, and, the worst and most common, shorting the ROM.

Then, once your plank and push-up are up to snuff, you

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can begin to work with versions that use dumbbells. This month, we focus on plank/push-up variations with dumbbells and vertical-to-horizontal movements with dumbbells.

Push-up variations

Push-ups with dumbbells are the most basic of these movements and are easiest to execute. They are simply push-ups as usual, but using the dumbbells (with non-rolling heads) on the ground as handles. The wrists must maintain a fixed and locked position. Because it allows the wrist to stay straight and neutral, this is sometimes more comfortable (especially for athletes with wrist flexibility or mobility issues) than doing push-ups on the floor, but it is no more difficult. If you can do a push-up, you can do it with dumbbells in your hands. Some athletes will report feeling greater tension across the chest and shoulders as there is now greater ROM in the bottom position because of the slightly elevated handles. (Because the handles are only slightly elevated, dumbbells do not allow as extreme a depth as higher parallel bars would, but, by the same token, they also don't increase the angle between body and floor, which somewhat decreases the load, as much either.)

One popular dumbbell-specific move is a push-up with a row at the top. This is simply a standard push-up and then holding the top position and balancing on one dumbbell while pulling the other straight up to the armpit area. Keep the dumbbell in close to the body and pull the elbow directly up and back, not out to the side. This move offers a new set of challenges in terms of the unilateral strength and the balance necessary to maintain the plank while all of the load of the body is shifted onto one arm.

Another, much more difficult, dumbbell push-up variation is the flag push-up, which begins with an ordinary push-up with the hands on relatively light dumbbells. Upon reaching the top of the push-up position, the athlete pivots on the long midline axis of the body and assumes a side plank on one side, with the dumbbell extended directly up from the shoulder on the other side. The dumbbell will reach the fully extended position by traveling the path of least resistance. The exact path is not critical, but a bend in the elbow, which will keep the weight fairly close to the chest as you raise it overhead, shortens the level arm and is easier. When the movement is complete, the arms straight and extended out to the sides, forming a "T" with the torso. This requires



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tremendous strength, core stabilization, coordination, and balance. The flag push-up is an advanced move, and you should work it without dumbbells before you add any weight, beginning with very light dumbbells and gradually increasing the load.

Vertical-to-horizontal movements

Vertical-to-horizontal movements are dynamite conditioning combined with a stopwatch. First, if you want to really ramp up your burpees, you can do them with dumbbells in your hands. Burpees with dumbbells do not include a jump up out of the final squat with the hands over the head. The final step in the DB burpee is simply to jump up explosively with the dumbbells at your sides.



<http://media.crossfit.com/cf-video/Dumbbell-Burpees.mov>

The second move is the exercise known as the “bodybuilder,” done with dumbbells. For this movement, select a pair of hex-head dumbbells (or any with non-rolling heads) that constitute a medium load for the individual.



<http://media.crossfit.com/cf-video/Dumbbell-BodyBuilders.mov>

The bodybuilder is performed as an eight-count movement. It is very similar to the burpee. Begin in a standing position, with the dumbbells in your hands, hanging at the sides. To begin, squat to the deck with the dumbbells. Then, supporting your weight on your hands on the weights, kick back to a good, tight plank position. From here, jump your feet out to the sides and then jump them back together to return to plank. Do a push-up and then hop your feet forward back up to the plane of the hands (into a deep squat position) and stand up. Repeat.

Once you have the movements mastered, break out your stopwatch and test how many you can do in a certain period of time. Or, add the Tabata protocol into the mix. Beginners might flip the protocol by beginning with 10 seconds of work and 20 seconds of rest. Either way, you will surely notice the potency of the combinations.

Part 2 of this article (in next month’s *Journal*), will examine rowing dumbbell moves and variations that incorporate a core wheel.



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