

## **Mechanics of the Flat Bench Dumbbell Press**

*By Tracy Anderson*

The flat dumbbell press is a basic compound movement utilized in many exercise routines. Although the flat bench barbell press is probably the most common and recognized exercise, the use of dumbbells are a wise alternative. Several advantages come with the use of dumbbells including more range of motion and working each side independently.

The prime mover of this exercise is the pectoralis major, and the assisting prime movers are the anterior deltoid, and the triceps brachii. The stabilizing muscles include the pectoralis minor, coracobrachialis and the serratus anterior. While your abdominal and back muscles work to neutralize the rest of the torso. Improper form can allow the anterior deltoid and the triceps brachii to become more than assisting. Skeletal motion includes movement in the shoulder and elbow joints. In the shoulder joint the humerus horizontally adducts while the elbow joint extends.

With this exercise the function of the pectoralis major is to horizontally adduct the humerus, or move it toward the center of the body in a horizontal plane. The function of the anterior deltoid is the same, that is why you must keep the weight above your chest. This will allow the movement to be performed in a plane of action favorable to the chest. The function of the pectoralis minor is scapular depression and the function of the serratus anterior is scapular protraction. This will help isolate your pectoralis major from the shoulder muscles. The coracobrachialis helps to stabilize the shoulder joint because it has an almost vertical line of pull causing most of its force to be directed back into the joint, thus stabilizing the head of the humerus in the glenoid fossa.

### **Performance**

Lie face up on a flat bench with your body in alignment, and feet planted firmly on the floor. Hold the dumbbell in each hand, with palms forward, directly above your chest, with the dumbbells together or close together. Your back should be slightly arched, rib cage elevated and shoulders press into the rib cage. This form will allow you to isolate the chest muscles more efficiently, while keeping the shoulder muscles less involved. Inhale while you lower the dumbbells, allowing your elbows to come down to the side at about a 60-70 degree angle. Any higher and the weight would be in-line with the shoulder joint and take away from the motion of the pectoralis major. Lower the dumbbells until they are in-line, or just above the chest. As you reverse the motion and push up, exhale slowly and push your shoulder girdle down into your ribcage and elevate your chest. Continue pushing until your arms are fully extended. Make sure not to lock out the elbow joints, this will take the resistance off of the muscles and place it on the joints. The shoulder joint should not raise off of the bench, but should maintain position.

### **Helpful Hints**

\* Just because you can bench press 400 pounds, doesn't mean you can dumbbell press with 200 pound dumbbells. Remember you will gain more with proper form and less weight than you will with more weight and poor form, not to mention injuries.

\* Proper breathing will enable your body to function at its best. Exhaling causes your body to relax, and you will lose tension in your chest. Make sure you exhale on the

concentric portion of the lift. Also proper breathing will deliver more oxygen and nutrients to the working muscles making the exercise more productive.

\* Maintain proper body alignment and foot placing. If you are leaning to one side then your body must compensate for this imbalance and this will decrease the effectiveness of the exercise, if not cause injury.

\* While lowering the weight contract your back muscles, like you were pulling the weight toward you. When pushing the weight back up, flare you back muscles and contract the chest muscles.

### **What's it good for?**

Powerful and strong chest muscles are useful in other activities and sports other than a bodybuilding contest. A strong chest is useful for boxers, football players, gymnasts, baseball, and tennis, just to name a few. The main function of the pectoralis major is to move your upper arm to the center of your chest. If you look at flat presses, inclines press, decline press, dumbbell fly's, pec dec or cable movements, all basic movements are the same. Just the mechanics and angles change to place stress on the muscle differently.

*This article is exerpted from Tracy Anderson's book Movement Science for Personal Trainers. Questions and comments are welcomed and can be given at [www.LFNOnline.com](http://www.LFNOnline.com).*