The Bench Press: Part I

(the good, bad and ugly of health club's most common exercise)

If you have ever been near a health club, fitness center, home gym or anyplace else where barbells and dumb bells live then you know something about the bench press. Aside from being the standard which all young men, from 14 to 40 years of age, apply in assessing their worth to society, it is probably the most used and abused exercise in the history of strength training. This first article in my series on the bench press will examine some of the uses and abuses of this exercise. In subsequent articles I will discuss variations and training philosophy in relationship to this time honored exercise.

First, let's agree on what constitutes a bench press. For simplicities sake I will define it as a supine or recumbent pressing (or pushing) movement against resistance. This definition will, therefore, exclude push-up type exercises (although these do work the same muscle groups). However, this definition will, necessarily, include variations of the traditional flat bench press with a barbell such as: inclined and declined benches of various degrees, the same movement performed on "Swiss" balls and on the floor. Bench pressing thus defined will also include use of machines with seats and benches that are plate loaded, or weight stack and cable set ups as well as the use of barbells (close, wide, medium and reverse grip), cambered bars and dumb bells. Upon reflection, I guess that "simplicity " may not be the correct term to apply to the "modern" bench press. (What ever happened to the Sears-Roebuck 110# weight set complete with wobbly bench?). So: a basic bench press is performed by lying supine on a flat bench, feet on the floor starting with a barbell at arms length at upper chest level. The bar is brought down to touch the chest and then pushed up again to arms length (this constitutes one repetition).

In essence, the bench press was "invented" to exercise the chest area and is a good choice for that activity since it will serve to strengthen the pectoral, anterior deltoid and triceps muscles particularly well. Bench press routines properly designed and executed can also strengthen the rotator cuff, grip, neck and parascapular muscles as well and may contribute to stabilization of the trunk and core. Sounds good? Maybe too good? Problems with the bench press stem, in many ways, from the attitudes of those most likely to use this exercise (see above). When weighted with the social context described above the amount of "tonnage" moved becomes an end in and of itself. This is where the "bad and the ugly" comes in to play. The nature of the movement and it's social implications is that most use a technique with elbows away from the body and with a wide grip. At the bottom of this movement the shoulders are in extension and horizontal abduction. This position puts a significant amount of stress on the anterior shoulder structures as well as the rotator cuff. Those using a cambered bar put even more stress on the anterior shoulder. This, in itself, would not be so bad for young and healthy shoulders except for the "tonnage" issue. What typically results is a movement in which the bar is rapidly brought to the chest even to the point of compressing the chest several inches (can you say blunt trauma?) and then quickly heaving the weight back up using a bridging type movement of the low back (can you say low back pain?) and using the momentum created to finish the lift! As you can imagine this poorly controlled technique is very

stressful on the structures involved (including the rotator cuff which is taxed severely in trying to control the glenohumeral movement under extreme stress). Needless to say there are very few old bench pressers using this technique.

Next time you are at a gym with some young men benching take a look with the above description in mind. It should be an eye opener (if you have not already witnessed this phenomenon). Let's break this down. First, the resistance used is invariably too heavy for a controlled movement. Second, the "high" elbows and extremely wide grip do not create a stable platform for the press. Next, using the chest as a spring board to accelerate the weight up is clearly risky behavior. Last, with both feet planted and the low back already in extension the explosive lifting of the hips to assist in driving the bar up and back creates tremendous stresses on the lumber spine.

Compare this description to that of a bench press performed with proper technique. Lie on the bench and retract the scapulae, plant the feet firmly on the floor and tighten the lower back but do not push into uncomfortable extension. Grip the bar firmly at about shoulder width (or slightly wider). Now lower the bar under control just lightly touching the lower chest (between xyphoid and nipple line) and pause briefly keeping the elbows in somewhat close to the trunk (in fact good bench pressers are able to use their latissimus muscles to initiate the push off the chest). Last raise the bar quickly but under control. The "arc of movement" should be pretty much a straight line up over the chest (as opposed to the back "over the eyes" style). You may see slight variations in this depending on body type but good bench pressing technique will look very much like the above description. Let me add that in power-lifting style bench pressing you will see some more significant variations on this but this is by those who are generally well trained in specific techniques for this type of competition. In general the above description is a prescription for safe and effective training with minimum chance for injury.

In the next article I will discuss some variations on the flat bench and grip style described here and why you may want to incorporate them into your training. I will also address some training philosophy about the chest and shoulders to help keep you lifting for many happy years.

THE BENCH PRESS: Part II

Variations and Accommodations

The fundamentals of the conventional barbell flat bench press were discussed in Part I. Today, let's discuss some of the finer points of the flat bench press. As with any weight training exercise the employment of good, that is safe, technique is essential to maximize benefits and the possibility of a long and injury free (or at least injury minimum) training life for your body. One of the most fundamental aspects of weight training is that the movement is performed from a stable base. I know, I know! What about Swiss balls, rocker boards, foam etc, etc, etc? It is true that there are special applications related to balance training and sports specific skills which may indicate the use of a less stable base. Our discussion here will be related to strength training, ok? Now, what was I talking about? Oh, yeah! So, you will want to perform your bench press from a stable base.

Lie on the bench. If your feet do not easily touch the floor you should place a couple of heavy weight plates or other non-slippery risers under your feet. Place your feet so that you will be able to drive off your mid-foot and heel to push your shoulders into the bench. It is not necessary to arch your back although most bench press specialists do. This can cause discomfort and possible injury to your low back so go slow if you wish to experiment with that technique. When you push your shoulders into the bench you will feel tension in your quadriceps and low back. Next retract your scapulae (shoulder blades) as much as possible, grip the bar tightly and bring it to your chest (as described in Part I). As you are bringing the bar down squeeze your glutes, "hard" ("squeeze the nickel"). Remain in this tight position throughout your rep/reps. Not only will you be able to use more weight than you can with a loose style, you will be less likely to sustain an injury when lifting from what you will notice is a very stable "platform".

In addition to the techniques described above, you will need to determine grip width. It is common knowledge that close grip bench pressing "works the tris"! True, as far as it goes but what is a close grip. A good rule of thumb is that a "close grip" is about shoulder width or slightly closer. Any grip that is too close will force ulnar deviation and put significant stress on the wrists. A so called "normal" grip will be at about shoulder width or a little wider. The thing to look for with this grip is that the fore arms should be approximately perpendicular to the floor at the bottom of the movement. This, combined with a relatively low touch to the chest (between nipple line and xyphoid) is the safest bench press for the shoulders and wrists and does a good job of working both the triceps and the pectoral muscles. The other common grip is the wide grip. Wide being defined as anything wider than "normal". There are increased risks involved to the wrists and shoulders when using a wide grip but if your joints are healthy and you do not experience pain during the movement you will find that most trainees can move more weight with this grip. This is for two reasons: the large and relatively powerful pectoral muscles are in full play and the range of motion is significantly less. The safest way to grasp the bar is a pronated grip with the thumbs around the bar. Variations are a thumbless grip

(thumb kept on same side of the bar as the fingers) and a reverse grip (the awkwardness will probably dissuade you from these). If you try these, be sure to have an experienced spotter with you.

Typical variations on the flat bench press are inclined and declined bench press. The basic techniques are the same as for the flat bench although most declined benches will not allow your feet to be in contact with the floor. These are useful variations and as with the flat bench can be performed with either barbells or dumb bells for a change of pace. My feeling is that if you have access to a safety rack or to a reliable spotter you will realize better gains in over-all and in functional strength with the use of free weights than with machines in performing these movements. Many of the machines for these pressing movements force you into an arc of motion that is not necessarily compatible with your safest range of motion. In addition, you miss out on the stability training that occurs when you must stabilize yourself on the bench during free weight training. If you feel you must train on the machines try to find a gym that has plate loaded equipment (similar to the "Hammer"® brand). Also, be sure to adjust the machine seat and range to best suit your training needs.

Before I let you go for today let me mention a few other safety related topics. Bench pressing can be a good method to improve the appearance of your chest, triceps and shoulders and is an excellent multi-joint exercise to enhance your upper body strength. A word of advice to all you serious work out people, especially all you enthusiastic guys out there: please add enough pulling movements to balance all those pushing/pressing movements in your bench routine. Also, pay attention to your rotator cuff health and to the range of motion in your shoulders. Never train in pain! A little soreness the day after a work out might be ok (if you need this assurance that you trained hard) but if it hurts to perform the exercise…STOP. Those shoulders have got to last a lifetime and repair jobs will definitely slow down your progress in the gym.