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Thoughts On The Bench Press: Part One

By Dr. Ken E. Leistner

Off all of the exercises that one can do in a weight room, the bench press is without a doubt, the best known, the most widely practiced, most easily recognized, and severely overrated. What is most interesting from a cultural perspective, is that less than twenty years ago, it was one of the lesser known, and least respected movements in the weight training cupboard of available exercises.

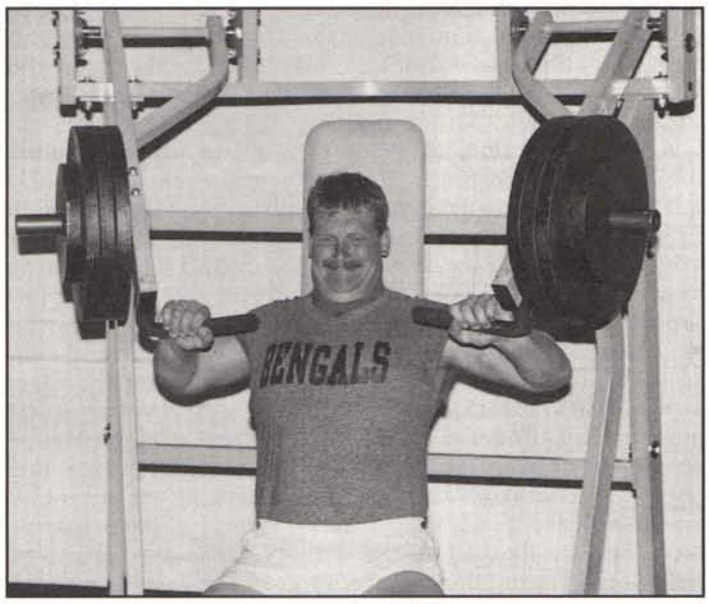
While the above statement might be inconceivable to any interested trainee who is less than thirty five years of age, it is undeniably true. The history of strength training and it's application to athletics readily explains it's former position and it's "rise to the top", although what has rarely been discussed are it's many disadvantages. After all, why kick a horse that is up, running, and so far ahead of the field when any response is bound to be negative?

In this century, early strongmen, following the traditions established in the 1800s, did a variety of one and two handed lifting movements. Most of these required that the resistance be elevated overhead. The lifting of rocks and the throwing of many objects always required that they first be moved from the ground to the shoulders or at extended arms. From there, the resistance could be manipulated. The strongman acts which eventually gave rise to formalized weight exercises, required the elevation of weights to the shoulders and to extended arms. One and two handed presses, bent presses, jerks, and holds were the standards of the day. Because no racks were used to bring the weight to the shoulders or above, it was necessary to balance one's "pressing strength" with "pulling" power so that the weight could be brought to the waist, as in the Continental lift, or directly to the shoulders before heaving or pressing it overhead. While a few of the lesser lights in the strongman field may have laid supine and lifted a weighted platform with either their lower extremities or their arms, these were not popular or widely seen movements through the early part of the 1900s.

The Olympic movement was extremely strong in the first few decades of this century. Because of the so called Olympic ideal, many activities were designed to mimic or simulate the events that formed Olympic competition. Thus, if one utilized weights, it was most often for the performance of the accepted movements used in the Olympic Games. Even if one had neither the talent nor aspirations to compete as an Olympian, the "sport" of lifting weights demanded that one do the accepted lifts. These of course, were overhead lifts. Many programs were then "rounded out" by various one and two armed lifts which required that the weight be brought to a position which would then allow the trainee to elevate it overhead. Needless to say, the majority of training time was spent on what can only be called press and jerk related movements.

In the 1930s, primarily through the efforts of a few men who more or less stumbled upon the squat by accident, the popularity of the full barbell squat began to grow. Dr. Randall Strossen's wonderful book Super Squats, gives a great and detailed history of this one exercise. Relative to the bench press, the significance of the squat arose from the application of racks upon which the barbell could be rested. Prior to the development and then widespread acceptance and use of some sort of supportive device, the barbell weight would be secured to the bar, the bar stood on one end, and then rocked across the upper back of the trainee. This feat alone could be exhausting and extremely dangerous, and for many, was a workout in and of itself. Getting it off one's upper back after twenty all out reps was, I am sure, ugly!

As many began to accept the squat as a useful exercise movement, it was then necessary for some to put aside their belief that using a rack was somehow "unmanly". Once



Bruce Kozerski, 6'5" 292 lbs. center for the Cincinnati Bengals, performing a set on the Hammer Iso-Lateral Incline Press.

support racks became widely used, some used them also for overhead pressing. This alleviated the need to clean or Continental the weight first, with it's concomitant expenditure of energy. As most training through the 1950s and early 1960s was still skewed towards the three olympic lifts, pressing, after taking the bar from the racks, proved to be a boon, and the press and jerk records went up accordingly.

In the 1940s, it is generally agreed that the incline bench made it's first appearance. Ed Yarick's Gym in Oakland, California was home base for many of the best physiques of the day. The immortal Steve Reeves was the best known member of the gym, but Jack Dellinger, Clancy Ross and others put this establishment on the bodybuilding map. Ross, it is reported, propped a board up against the wall on an angle, creating the first incline bench. If this tale isn't true, it is accepted that Ross was perhaps the first to give the bench widespread recognition, and he credited it with his superior chest development. During the 1940s and 1950s, the bench press was performed also, but like the incline and other types of pressing movements, it was considered to be an adjunctive exercise for the Olympic press.

During the late 1950s, the Olympic press began to undergo changes. Prior to this, a "Military Press" and the Olympic press were virtually the same thing; one stood erect, heels together, and slowly pressed the bar to complete extension of the arms with no extraneous body movement. As the 1960s were ushered in, the press slowly but surely broke down, so that by 1970, talk was heard to banish the movement from official competition as it had become so difficult to judge. A very fast and well timed back bend, coupled with knee bend, hip thrust, and return to a somewhat erect position had produced what could only be called a standing bench press. In fact, many Olympic lifters and training purists had, to this time, refused to do the bench press, but now, some included low incline and bench presses as assistance movements for overhead lifting. This was true heresy, yet the value of high inclines was being questioned because no one actually pressed in that position any longer.

Coupled with the change in the Olympic lift procedure, was the rise in the popularity of organized powerlifting. Up until the early 1970s, and certainly prior to this, if one was asked "how much can you lift", it was assumed that a reference was being made to the overhead press and one always answered accordingly. As the press was no longer done competitively, Olympic lifters could state that "My jerk is really up there". For non-lifters, the story was different. Most gym habituees do not have a fondness for the squat and deadlift, and could only ask, "What can I lift in what?" Enter the bench press.

Organized university and high school weight training programs were scarce in the 1960s and even in the early 1970s. I can state without hesitation that the Malverne High School (N.Y.) weight room and strength training program for athletes was one of the first and certainly the most extensive, in our area. This occurred not because it was in reality, so extensive, but due to the lack of other complete rooms that offered training supervision to the athletes. Many had Universal Gyms but few boasted the seven full Olympic barbell sets and various racks and benches that we did. As more and more schools understood the need for and effectiveness of strength training, the number of athletes engaged in training naturally increased. As powerlifting became an organized event and grew in popularity and numbers of participants, some became football and/or strength coaches. Naturally, we de-emphasized the Olympic type lifts and gave credence to the lifts that they had been doing regularly. As the bench press was relatively easy to do, lying on one's back, having spotters available if needed, with no low back stress to contend with, it too grew in popularity. In time, one could state with certainty that many schools did not use the squat; many schools did not use the deadlift; every school used the bench press. The gates of bench press mania had opened.

Getting FITT

By Matt Brzycki, Strength Coach, Princeton University

Weight training is certainly an excellent tool to decrease a person's risk of injury and to increase his or her functional strength. However, most sports and activities require a combination of not only strength but also cardiovascular or aerobic conditioning. An individual who is highly conditioned will have a lower resting heart rate and lower blood pressure. In addition, a person will be able to work a higher levels of intensity for longer periods of time at a lower heart rate than someone who is less conditioned. This "conditioning advantage" means that a person will not have to expend as much energy as his or her opponent and will be able to perform activities with less visible effort.

Your cardiovascular fitness may be improved by using several easy-to-follow guidelines. These guidelines can be organized under the acronym FITT, which stands for Frequency, Intensity, Time and Type. (Anyone who is over 35 years old or hasn't been especially active in quite some time should obtain a medical examination before initiating any program.)

Frequency

In order to improve your aerobic fitness, most authorities suggest that you perform a selected activity 3 to 5 days per week. Exercising less than two days per week does not appear adequate enough to promote any significant changes. Apparently, the amount of improvement is negligible when

Vanderbilt University basketball players incorporate interval training in order to get FITT.

exercising more than five days per week. However, training more frequently is beneficial when weight reduction is a goal. Remember not to start off with too much too soon as this may very well lead to an overuse injury.

Intensity

Hopefully, one of the messages that you've gotten from perusing the articles in the *H.I.T.* newsletter is that your level of effort is very important in determining your response from strength training. Over the past three years, countless authors have encouraged trainees to lift weights with a high level of intensity in order to maximize their training response. Guess what? Yep, the same is true with regards to cardiovascular conditioning. The American College of Sports Medicine (ACSM) suggests that you should maintain a level of 60-90 percent of your age-predicted maximum heart rate to obtain a desirable training effect. (Previously, the ACSM recommended exercising at 70-85 percent of your age-predicted maximum heart rate. In 1990, the ACSM expanded their guideline presumably to encompass extremes in the population—the poorly conditioned and the highly conditioned.)

To find your age-predicted maximum heart rate, simply subtract your age from 220. For example, if you are 30 years old, your age-predicted maximum heart rate is 190 beats per minute [220-30 = 190]. Next, multiply 190 by .60 and .90. This means that a 30 year old individual needs to maintain his or her heart rate between about 114-171 beats per minute to elicit an aerobic effect. Anyone who has a relatively low level of fitness should exercise closer to 60 percent of his or her age-predicted maximum; persons with above-average fitness levels will need to exercise at higher heart rates to receive a sufficient workload.

Time

Several years ago, I overheard a woman say that she works out for four hours a day, six times a week. In other words, she trains a total of 24 hours a week. Hey, I have to applaud her determination but that's not a workout program . . . *that's a part-time job*! The ACSM and other fitness authorities recommend that a person should exercise continuously for 20 to 60 minutes in order to receive an aerobic training response. Some research even suggest that a training effect may be obtained by exercising as little as 12 minutes! However, this won't use up many calories and the exercise would have to be *extremely* intense. If weight loss is a priority, your best bet is to perform an aerobic-type activity for 30-60 minutes.

Type

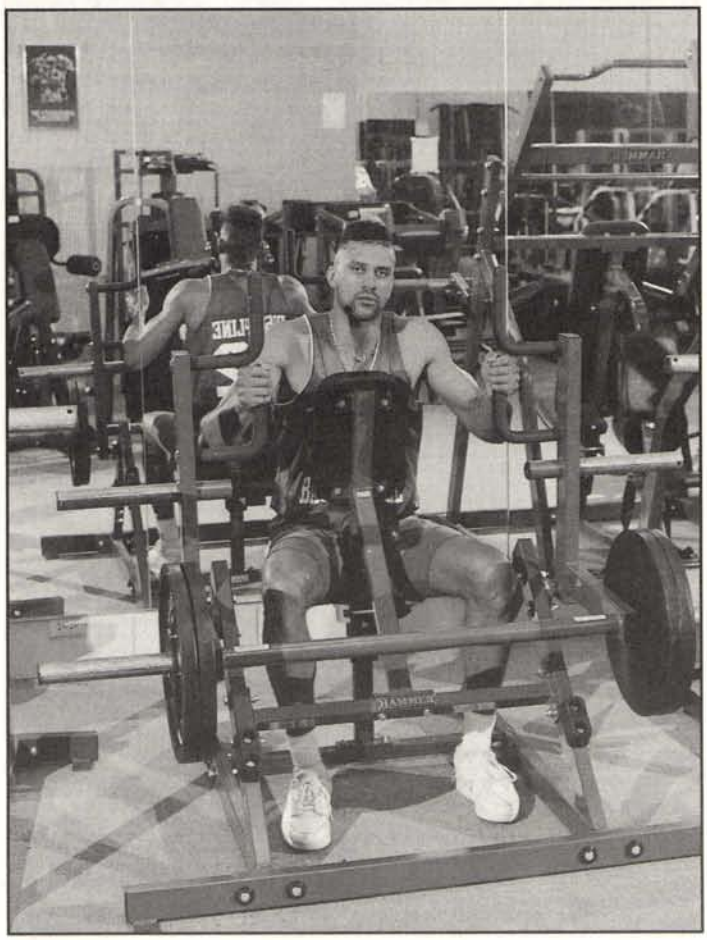
The best types of aerobic activities are those that require a continuous, sustained effort. Such activities include walking, hiking, jogging, running, cycling (outdoors and stationary), skiing, swimming, rope jumping, ice skating, roller skating, rowing and stair climbing. When choosing an activity, it is important to keep in mind your skill levels. In my case, for example, swimming would not be a good aerobic activity because I swim like an anchor. (I do a real great impersonation of a drowning victim.) In addition, some individuals are more prone to injury from certain types of activities. For instance, rope jumping would not be recommended for overweight individuals because of the excessive stress on the ankles, knees and lower back. Jumping rope during pregnancy may also endanger the fetus. So, the best advice is to select appropriate activities that are enjoyable and orthopaedically safe. In a nutshell, you must train 3-5 times per week [*frequency*] at 60-90 percent of your age-predicted maximum heart rate [*intensity*] for 20-60 consecutive minutes [*time*] using appropriate activities that require a sustained effort [*type*]. Remember, you must include all of these guidelines in your conditioning program if you wish to improve your cardiovascular FITT-ness.

Reference

1. Brzycki, Matt. *A Practical Approach to Strength Training* (2nd ed). Grand Rapids, MI: Masters Press, 1991.

University Of Kentucky Basketball Strength Training: An Interview With Ray "Rock" Oliver, Strength and Conditioning Coach

What type of strength training philosophy have you implemented for the University of Kentucky basketball program? We basically follow sound basic strength training principles which have been touched upon in previous issues of *H.I.T.* 1) We attempt to perform each exercise through as full of pain free range of motion as possible. 2) We attempt to perform each repetition in perfect form. 3) The players pride themselves on the ability to work "hard" for each set. Our interpretation of working hard is taking each exercise to a point of momentary failure. 4) We perform



Kenny Walker of the New York Knicks and former UK standout performs a set on the Hammer Rowing machine.