

# H.I.T.

# HIGH INTENSITY TRAINING

## NEWSLETTER

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### The Deadlift: Part 1

By Dr. Ken E. Leistner

The deadlift has always been a very productive exercise because it meets most of the criteria for a "good" exercise movement: it involves a lot of muscle tissue, there is movement around more than one joint, it is "hard" if done properly, and it is one of those so-called "large muscle movements" that seem to stimulate growth in muscular regions that do not have direct involvement with the lift. The major problems with the deadlift concern the utilization of consistent proper form, and the fact that it has become a competitive power lift.

Addressing the latter point, one might first feel that many would be encouraged to deadlift because it is in fact, one of the three official powerlifts. On the contrary, because it is seen as a competitive lift, and only a competitive lift by many, it is not often considered to be the "exercise" it truly is. Prior to 1961, there was no official powerlifting sport. Many "odd lift" contests were held throughout the country, with one or more lifts being competed. Between 1961 and 1964, a more or less standardized package of lifts were competed among those who had the interest, and the so-called official lifts, in which entire contests would be devoted to their exclusive performance, became, in order, the bench press, full barbell squat, and the standing curl. Yes, the curl, sometimes done while leaning against a stationary post, sometimes done with a cheat or heave. The curl was sometimes done with an olympic type bar, and at times with a new-fangled invention called the EZ Curl bar. Throughout 1963 and 1964, more contests featured the two hands deadlift, and in the first truly national lifting meet, the deadlift replaced the curl as an "official" lift. On September 5, 1964, the Powerlifting Tournament of America was held and in 1965, it was first dubbed the Senior National Powerlifting Championships, a competition in the bench press, squat, and deadlift.

Up to this time, the men who won these early championships, donated some time to the deadlift, but treated it like other exercises, doing six to twenty repetitions per set. Those who were not interested in this new sport of powerlifting, did them the same way as it was an extremely taxing and result producing exercise. Once it became a "lift" however, the majority of trainees did low rep and single repetition sets exclusively, in preparation for future powerlifting meets. For those who now associated the

deadlift with "the powerlifting group", it became a seldom used movement in the standard routine, and one which posed a risk of injury because of the heavy weight/maximal attempts used. In effect, one of the very best exercises was lost to the majority of trainees.

The fact that almost exclusive use of heavy weights was recommended, in conjunction with the attitude that "technique isn't important, you just grab and pull", injuries were common and often debilitating. This further isolated the deadlift to the "Don't Do" category for many. While there is no doubt that improper form can spell disaster, this exercise is no more difficult than most and certainly, more result producing.

In the early 1980's, the deadlift, as a competitive movement, underwent a change in form. Copying the highly successful Japanese champion Hidaki Inaba, many lifters attempted the wide stance, hands inside the knees, "Sumo" style of deadlifting. For the competitive lifter, the advantages were a reduction in the distance the bar had to move from floor to completion, greater involvement of the musculature of the hips relative to the low back, especially as it compared to the conventional type of stance, and a relative respite for the low back muscles in the overall weekly training program. Remember that when one is demonstrating strength, every attempt to make the exercise "easier" should be explored. Moving the resistance a shorter distance certainly qualifies, and for those lifters with favorable squatting leverages and/or disproportionately strong hips, the Sumo style was effective.

In order to build strength, the exercise, while remaining safe, should be done so that it is as difficult as possible, ie; the intensity of the exercise is elevated. The conventional stance gives more involvement to the low back and mid-back musculature, the thighs, and certainly does not ignore the hips. In effect, for most, the conventional style means "more work" per rep or per set than does the Sumo lift, thus, it would be the movement of choice for the majority of trainees. Of course, if one's body type, or inherent leverages were such that the performance of this, or any other exercise made it a relatively dangerous movement, it should not be done or a substitute style or movement should be sought. Many lifters with low back dysfunction or discomfort switched to the Sumo style

overtraining. A week away from training will help both physiologically and psychologically. After a week off, gradually start in on a new routine, a new routine could mean: staying with the same exercises but changing the order; choosing new exercises; staying with the same routine but changing the repetition ranges. Some people may call this cycling your workouts, others may call it periodization, while others may call it variety in training. Regardless of what one may call it, train hard . . . allow time for recovery . . . and every 6 to 8 weeks back off of training all together. Don't workout just to workout, train for results.

The importance of taking time off was exemplified this summer by Greg Huntington. Greg plays football at Penn State. I did not have to spend much time teaching Greg about strength training because the strength program at Penn State, which is run by Chet Furhman, is excellent. I trained Greg hard for seven weeks. He made continual progress during the seven weeks but he was starting to border on overtraining. After one week vacation, Greg came back physically and mentally charged. He trained hard another seven weeks before summer camp started. It became important to manipulate his leg workouts as the summer progressed because Greg was doing a lot of anaerobic sprint work. Greg was eating plenty of well balanced calories and getting plenty of rest. He was focused on results not necessarily seeing how often he could train. Greg went from 6'4" 235 lbs. and 17.1% bodyfat to 6'4" 260 lbs. and 16.7% bodyfat during the course of his summer program. The key to Greg's results are the key to Penn States results . . . hard training . . . proper rest . . . knowing when to back off from training . . . sound, basic nutrition.

## The Importance Of Progression In Strength Training

By Matt Brzycki  
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Getting stronger is actually quite simple. In order for an individual to increase his or her functional strength, two things must be present: resistance and progression. First of all, there must be a resistance or a "load" placed on the musculature. It doesn't really matter whether the resistance is from a barbell, a machine, a barbell-loaded machine or another human being. Your muscles will not develop one way with machines and another way with barbells. The only thing that matters is that there is an adequate load on the musculature. The next time you watch an athletic event, see if you can tell which athletes trained with barbells, which athletes trained with machines and which athletes don't lift weights at all. You'll readily see that the type of equipment that an individual trains with does not influence the appearance of his or her muscles. Sure, some equipment is more productive and more efficient than others and, therefore, will enhance muscular development . . . but only in the direction of your predetermined genetic potential. In short, you won't necessarily gain a "ripped" physique from

machines and a "rugged" physique from barbells.

The second factor that must be present is progression. Many individuals neglect to emphasize this very important factor; some fail to consider it altogether! How many people do you know that have performed the same number of reps with the same amount of weight for months and maybe even years? Suppose that today you did a set of leg curls for 10 reps with 100 pounds and a month later you're still doing 10 reps with 100 pounds. It's not likely that you've gotten any stronger. On the other hand, what if you were able to do 11 reps with 120 pounds a month later? In this case, you were able to perform 10 percent more reps with 20 percent more weight. That's excellent progress over a period of one month!

The fact of the matter is that in order for a muscle to increase in size and strength, you must force it to do progressively harder work. A muscle must be stimulated (or "overloaded") with a workload that is increased throughout the course of a program. Legend has it that Milo of Crotona periodically lifted a baby bull onto his shoulders. Milo's strength increased as the bull increased in weight. Indeed, this crude method of progression was responsible for his strength gains.

Every time you workout, attempt to increase the weight and/or the repetitions. This can be viewed as a "double progressive" technique (resistance and repetitions). Challenging your muscles in this manner will force them to adapt to the imposed stress; your muscles adapt to stress by increasing in size and strength. The extent to which this occurs then become a function of your genetics.

Each time you attain the maximum number of prescribed repetitions, you should increase the resistance for your next workout. The progressions need not be in Herculean leaps and bounds . . . but it must always be challenging. You should increase the load in an amount that you are comfortable with. Fortunately, we can accomplish this much more systematically than Milo and his baby bull! Your muscles will respond better if the progressions in resistance are 5 percent or less. But again, it must be challenging.

As you can see, increasing your functional strength can be quite simple. Getting stronger is a matter of placing a workload on your muscles and making sure that the workload is progressive from one workout to the next in terms of the weight used (resistance) and/or the repetitions performed. Indeed, progression is the heart and soul of efficient, productive strength training. Certainly, other factors such as intensity, frequency, duration and recovery are important, but progression is an absolute necessity for getting stronger. A decade from now, progression will be a requirement for increasing strength . . . a hundred years from now progression will still be required. So, although the form of resistance has evolved quite a bit from the "bovine stages", the need for progression will simply never change.

### Reference

Brzycki, Matt. *A Practical Approach To Strength Training*. Grand Rapids, Michigan: Masters Press, 1989.

Note: For more information on *A Practical Approach To Strength Training*, please write: Masters Press, 5025 28th Street SE, Grand Rapids, Michigan 49506 or call toll free 1-800-722-2677.