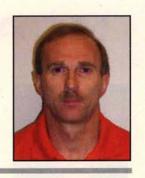
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WEIGHT TRAINING FOR WRESTLERS

Sets and Intensity: You Can Quote Me On That!

By Matt Brzycki



he coaching ranks are filled with colorful characters who often make equally colorful quotes. Here is a look at some things that have been said and written by wrestling coaches, strength coaches, athletes and researchers concerning the number of sets and level of intensity that they feel are needed in the weight room:

"We incorporate a one-set, high-intensity style of weight training. This simply means a person will perform the exercise a predicted number of repetitions until they can no longer lift or lower the weight in a controlled manner, while continually exerting maximum contraction. This is called working to failure or momentary muscular fatigue."

- Brad Andress Strength and Conditioning Coach Colorado Rockies

"Maximal effort is required to develop maximal results. Hard work should not be confused with more work. Truth be told, it does not take a maximal amount of work and/or time to develop maximal results. It does require maximal effort and maximal perseverance. In other words, strength development is use it or lose it

- and don't abuse it! Train hard, chart your progression, allow ample time to rest/recover between workouts and incorporate variety into your program to prevent overtraining and monotony."

- Mark Asanovich Strength and Conditioning Coach Jacksonville Jaguars

"Lifting without intensity is the equivalent of competing without intensity. The desired results and gains cannot be attained without an intense approach. It is important to lift with individuals who can motivate and push you to your limit."

 - Dave Bell Head Wrestling Coach Bergen Catholic High School (New Jersey)

"A high-intensity approach to strength training is the only way to go. I have seen many athletes logging countless hours in the weight room without gaining maximum results because they lacked intensity. The only way to increase muscular fitness is to push your body to its limits and high-intensity training is the most time-effective means of doing this. Intensity in training is an investment that will

continue to yield maximum returns in your muscular fitness."

- Ryan Bonfiglio Assistant Wrestling Coach Princeton University

"There is insufficient evidence to support the prevalent belief that a greater volume of exercise (through multiple sets) will elicit superior muscular strength or hypertrophy than will the minimal volume (through a single set)."

- Dr. Ralph Carpinelli Department of Exercise Physiology Adelphi University (New York)

"Just as you must be intense during matches, wrestling practice and when running, you must also be intense in the weight room. You cannot simply 'go through the motions' and expect to maximize your strength gains. You must get motivated to push yourself before beginning to lift and stay intense throughout your workout. If you begin to fatigue or get bored, you must make an extra effort to concentrate and focus from the beginning to the end of every repetition of every set. Stay intense! The higher the intensity of your exercise, the better your muscles will be stimulated and the more strength you will gain."

Ken Chertow
 3x NCAA All-American (1987-89;
 Penn State University)
 U. S. Olympic Team (1988)

"I do every set to failure. It just doesn't make sense if you don't go to failure. It's a wasted set otherwise."

> - Mark Coleman NCAA Champ (1988; Ohio State University) U. S. Olympic Team (1992)

"Each set should be done to the point where you don't want to do it again. Nobody has ever done a set that way and asked me if they could come back and do another one. You might ask 'What good does that do?' Well, nothing develops your mental toughness like that. It's the best way to prepare for sports. I can't see another way to train. And I've been around this stuff since 1953."

- Dick Conner Owner The Pit Barbell Club (Indiana)



"I believe you can use your strength-training program to increase your personal confidence, that deep-down residue of inner personal belief that allows ordinary people to achieve extraordinary accomplishments in every area of life. It comes from designing a program that allows you to make continual gains. It comes from setting realistic goals and working with intensity, dedication and perseverance to achieve them."

- Bobby Douglas Head Wrestling Coach Iowa State University

"Intensity in the weight room has great carryover value to the practice mat. I feel that if you do one set to muscle fatigue, have a very short rest and move to the next exercise, it will be extremely valuable to you with your strength training and how you drill. For example, drilling a double-leg takedown 10 times or more to fatigue and moving to another drill will have a great effect on your success during a match. 'Lift like you drill' is a concept that coaches must teach their wrestlers."

- Joe Forte
 Head Wrestling Coach
 The Pingry School (New Jersey)

"In the weight room, high intensity provides an excellent opportunity for wrestlers to prepare for match competition. A wrestling match is a series of intense battles for six minutes. If the intensity is high in the weight room, a wrestler can simulate those battles with each lift."

- Jeff Gaier
 Head Wrestling Coach
 Archbishop Moeller High School
 (Ohio)

"While it is possible to make improvements in strength without training to the point of momentary failure/fatigue, these improvements would generally not be as significant as if failure/fatigue were reached. It simply represents a sub-maximal stimulus to the muscle or muscle groups involved."

Chip Harrison
 Strength and Conditioning Coach
 Penn State University

"Intensity is a state of mind that fosters mental toughness. In the weight room, intensity is giving your absolute maximum effort until you cannot perform another rep. This intensity will carry over to the mat where you give it your all until your opponent is defeated or time runs out."

- Gregg Humphreys Head Coach of Judo and Sambo Miletich Fighting Systems (Iowa)

"Attempting to reach momentary muscular fatigue or what is also known as 'volitional failure' is the only way to assure that the muscles involved in the movement have been recruited maximally. This means that using a resistance

that will produce fatigue or near fatigue within a specific repetition range will assure that the maximum amount of work has been accomplished. Having been a wrestling coach at the scholastic level and the strength coach for the Penn State Wrestling Team, I can attest to the importance of training to momentary muscular fatigue."

> - Dr. Paul Kennedy Strength Consultant Phoenix, Arizona

"High-intensity training is going all out, not almost all out; it is taking each set to one's absolute limit, not almost to the limit; it is using whatever piece of equipment that's available, not just a machine or group of machines; it is not the words of two or three men, but a commitment to work as hard as possible while in the gym or weight room . . . without socializing, resting excessively between sets or falling prey to the 'this isn't going to work so I'll copy the star attitude.'"

- Dr. Ken Leistner Strength Consultant Oceanside, New York

"Rather than performing more sets, the emphasis should be placed on the amount of work within the set. It would require a lengthy discussion here, but suffice it to say that the intensity of a set is much more important than the

quantity of sets performed."

- Ken Mannie Strength and Conditioning Coach Michigan State University

"Intensity is the most important aspect of your weight training regardless of whether you are using a high-intensity training program or some foolish Olympic-style program. Your primary reason for lifting weights is to prevent injury and if you use a high level of intensity it only increases your performance on the mat. So intensity is key in the weight room."

- Michael New Head Wrestling Coach Princeton University

"Your goal must be to perform as few sets as possible while stimulating maximum gains. If properly performed, only one set is needed to generate maximum gains. In our standard routines, one set of each exercise is performed."

- Dan Riley Strength and Conditioning Coach Houston Texans

"It is clear that the level of intensity of exercise is an important factor. Intensity can be defined as 'the percentage of momentary muscular and volitional effort being exerted by an individual.' Thus, at the point of momentary muscular failure, where the maximum number of fibres is



being recruited, the intensity of exercise is at it's highest. It is difficult to see how a muscle fibre could be stimulated to grow if it is not recruited, and thus it seems reasonable to suggest that, to stimulate maximum strength gains, each set should be taken to a point of momentary muscular failure. It is also important to note that when performing one set to failure, the maximum possible number of muscle fibres will have been stimulated to grow."

- Dave Smith Manchester Metropolitan University (England)

"One properly performed set is all that is needed to stimulate maximum gains in size,

strength, mass, power, speed, explosion and any other physical attribute dependent on strength."

> - Mark Wateska Strength and Conditioning Coach University of Indiana

"High-intensity exercise enhances strength development. Your exercise effort should be hard enough to fatigue the target muscles within the anaerobic energy system (about 50 - 70 seconds). This typically requires 8 - 12 repetitions with 75% of your maximum resistance. One properly performed exercise set is as effective for increasing muscle strength as two or three exercise sets. Because single-set training

is more time-efficient than multiple-set training, and because many people live on tight schedules, you should perform one good set of each exercise. Single-set training is a safe, effective and efficient means for developing muscle strength."

> - Dr. Wayne Westcott Strength Consultant Quincy, Massachusetts

"Perform each exercise with as much weight as possible using perfect form. Your goal is to reach momentary muscular failure (the point when you cannot properly raise another rep) on each exercise."

Mike Wolf
 Strength and Conditioning Coach
 Philadelphia Eagles

"Hard work is necessary to develop maximum strength. Do not confuse 'hard work' to mean 'more work.' It does not take a great amount of work or time to develop maximum strength... but the work performed should be of highest intensity. Strive to get the most out of everything you do. Make every rep count. Make every set count."

- Kim Wood Strength and Conditioning Coach Cincinnati Bengals (retired)

"The real key to strength development is intensity of effort. Athletes must utilize the key principle of progressive resistance; they must push themselves each and every workout. To be effective, workouts should be extremely challenging and enough time for recovery must be allowed. Athletes should strive to improve their number of repetitions and/or weight lifted in every workout. For workouts to be this intense (and I mean hard!!!) they must by necessity be brief. One exhausting set to muscular fatigue (sometimes referred to as 'momentary muscular failure') should be more than enough for each major muscle group. In some instances, two sets might be called for, but not usually."

- Howard Young Exercise Physiologist



Editor Note: Matt Brzycki has authored, co-authored or edited 11 books on strength and fitness including: Wrestling Strength: The Competitive Edge, Wrestling Strength: Prepare to Win and Wrestling Strength: Dare to Excel. The three wrestling books are available at all major bookstores or through Cardinal Publishers Group (800-296-0481).

