



## **Interrogation with H.I.T. Expert, Dr. Ellington Darden**

**ZE – Dr. Darden! I can't tell you how excited I am to have this opportunity to interview you. My background comes from bodybuilding and I started in 1990. I used to read all the high intensity training books and I had the greatest admiration for the physiques of Casey Viator and the Mentzer brothers. This is going to be a REAL treat for me and all the members at Underground Strength Coach! Thank you for taking the time to be with us!**

ED – It's great to be interviewed by such an enthusiastic trainee. I'm pleased to contribute.

**ZE – Since your first days of utilizing HIT training, how have you tweaked and improved upon the effectiveness of HIT training?**

ED – HIT, through the initial efforts of Arthur Jones, really came into it's own during the 1970s. Most of what Jones pushed then is still valid. He believed strongly in intensity of effort. In fact, on the back cover of my latest book, "The New Bodybuilding for Old-School Results," Jones talks about providing bodybuilders with what they NEED, rather than what they WANT.

"Bodybuilders want," Jones said, "easier, longer, more frequent exercise. Instead, I give them what they need: harder, briefer, more infrequent exercise."

Zach, in my opinion, that's still some of the best advice a bodybuilder can apply.

But back to your question on how I've tweaked and improved HIT?

Jones started me, and many others, thinking in the direction of harder and briefer exercise. I'm not quite as strict as Jones was and I respect more of the scientific findings that have occurred over the last 25 years. Today, I know many types of weight-training systems produce positive changes in the human body – including multiple sets, split routines, high repetitions, low repetitions, fast and slow styles, and training to failure and not training to failure.

Lots of things work, at least for a while. But once you get my age, 64, you better make damned sure that your bodybuilding and strength training haven't mangled and destroyed your joints and muscles in the process of building them.



This shot was inspired by Joe Weider's magazines, where the good - looking gal is admiring the muscle man. I had recently won the 1969 Mr. Texas contest and I was with a

group of my friends at the beach in Panacea, Florida. At that time, I was 5' 11" tall and weighed about 200 pounds.

**ZE – Dr. Darden, let me stop you for a minute. Before you get into some related issues, can you clarify exactly what it takes for weight training to build muscle?**

ED – Sure. Without getting too complicated, I want to answer your question as it applies to advanced bodybuilders. Why advanced bodybuilders? Because most guys, who've been involved with training for even a little while, know that it's fairly easy for beginners to make progress.

If a beginner is consistent, he can – in a matter of two to three months, add five or more pounds of solid muscle to his body. Then, he reaches a plateau, and it becomes more difficult. If he, an intermediate now, doesn't know what he's doing, it may take him a year to add another 5 pounds – and if it takes that long, he's probably NOT going to stick with it. And even if it does, that next level – advanced – is going to be much more difficult to add significant muscle.

In chapter 7 of my new book, a longtime HIT enthusiast and trainer, Bill De Simone of Princeton, NJ, boils down the muscular-growth process to two factors.

*First*, you need heavy repetitions, performed within the anaerobic pathway of 30 to 90 seconds, to involve as many of the fast-twitch muscle fibers as possible. The fast-twitch fibers have the most potential for growth.

*Second*, you can further stimulate fiber size by extending your normal set into an induced burning state, which triggers remodeling/repair through hormonal response.

I believe De Simone is on-target with advanced bodybuilders. In summary, he says you've got to lift heavy for at least 30-seconds worth of repetitions . . . and then, some of the time, continue a set – with such techniques as negatives, pre-exhaustion, and breakdowns.

In my opinion, De Simone's concepts help update Arthur Jones's findings from the early 1970s, especially as they relate to experienced trainees.

**ZE – The majority of people I know who currently use HIT or have used HIT are bodybuilders. Here and there I hear of some Performance Coaches using HIT for athletes. Can HIT be effectively used for athletes or does the constant practice of their sport interfere with the gains that can be made due to recovery issues?**

ED – HIT, during the 1970s, was used as much by sports coaches, as by bodybuilders. Nautilus worked closely with the Miami Dolphins, Cincinnati Bengals, Chicago White Sox, New York Yankees, and numerous college and high school sports teams. We recommended that most athletes strength train twice a week – the day after the game and three days later.

And you're right. Recovery can be an issue. That's why it's important to keep the workouts hard and brief.

**ZE – I recall reading the exact stories and workouts of Casey Viator as he prepped for the Mr. America at age 19. Those workouts were full body and he was built more rugged than any other man I have seen! I have experienced great gains using HIT but splitting up the body into 4 different workouts! Have you found through experience a certain split to be optimal for strength and muscle gains?**

ED – I've got mixed emotions concerning split routines. I know that's what most bodybuilders demand. Split routines allow guys to spend more time in the gym, which helps them fulfill those WANTS (easier, longer, more frequent exercise) that Arthur Jones described on the back of my book. But most split routines lead to overtraining and/or a reduction in the intensity of the exercise – both of which hurt your overall results.

At the same time, I realize that most trainees appreciate variety, and split routines offer a lot of variation. What I've done in my book is to assemble A, B, and C versions of basic whole-body routines. You're still working both your lower and upper bodies during the same workout – but you have variety from the application of different exercises and techniques.

*Bottom line:* Most of the bodybuilders from the old school, the 1940s and 1950s, used whole-body training three times per week. And it worked very well for them. Of course, these guys understood the basics and the need for hard work.



If you're a fan of underground old-school training, you'll appreciate most of the equipment in this photo. I took this picture in Cincinnati at the home gym of Kim Wood, who was an NFL strength coach for 28 years. I interviewed Wood in chapter 2 of my new book.

The large blue dumbbells on the floor are from the Milo Barbell Company, which was started by Alan Calvert in 1902. Above the dumbbells, resting on boxes, is a huge globe barbell, which was lifted in the early 1900s by strongman Warren Lincoln Travis. Above the Travis barbell are several Milo Tri-Plex and Du-Plex barbells, as well as several solid Sandow barbells from England. Along the back windows are some chromate-finished kettlebells from Black Iron Strength and on the floor are globe dumbbells and barbells made by Osmo Kiiha. On the racks to the near right are retro barbells from Atomic Athletic.

**ZE – With the new influx of exercise equipment and all the different training tools available nowadays, what tool(s) do you prefer to use for HIT training and why?**

ED – From 1958 to 1970, I trained with barbell and dumbbells. From 1971 to 2007, I used mostly Nautilus machines. I've had a lot of experience with both free weights and machines. I've learned from my more than 45 years of training, that the equipment is not as important as the way you apply whatever equipment you have. You can get good results from free weights and you can get good results from machines. Or you can achieve little or no results from either one.

But if everything is equal and you have a choice between both – then 9 times out of 10, I'd go with machines. Why? Because properly designed machines are more effective, more efficient, and safer than similar free-weight exercises.

In my home gym, I have seven Nautilus machines, a Bowflex machine, a thick-handle barbell with 100 pounds of plates, and a pair of hand grippers.



An interesting photo montage of Arthur Jones, taken in 1983, as he supervised the training of an athlete.

**ZE – Let’s take a look at specific workouts if possible. Let’s take an advanced athlete, such as a college football player. He has access to barbells and dumbbells only. How would a workout look for this athlete and if possible let’s touch upon how long this program lasts before we change exercises.**

ED – Okay, assuming he’s in descent shape, I’d start him off with ten basic exercises, such as the following:

1. Squat
2. Calf raise
3. Pullover with one dumbbell
4. Overhead press

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5. Bent-over rowing
6. Bench press
7. Shoulder shrug
8. Biceps curl
9. Triceps extension with one dumbbell
10. Stiff-legged deadlift

He'd do one set of each exercise with as much weight as he could handle for 8 to 12 repetitions, in good form. Good form would be smooth and slow on both the lifting and the lowering, making sure that the turnarounds are deliberate, with no jerking or bouncing. Overall, each rep would take approximately 5 seconds to perform . . . which is 2-3 seconds on the positive and 2-3 seconds on the negative.

The HIT philosophy is based on going to momentary muscular failure, "where he can no longer complete the positive phase without cheating," which usually requires some specific coaching for most football players to get the hang of, since they are used to slamming and throwing many of their repetitions.

Another important HIT principle, "as an athlete gets stronger, he must reduce his frequency," now comes into action. I'd start this football player doing all those ten exercises three times per week, until he reached a plateau on half of the exercises. When that occurred, I'd reduce his frequency from three times per week, which is six times in two weeks, to five times in two weeks. After another plateau is reached, I'd reduce him to twice-a-week training.

After two months of the above, I'd subtract and add some new exercises, such as the lateral raise, bent-arm fly, wrist curl, reverse curl, side bend, and possibly the leg extension and leg curl, if those machines are accessible, as well as some type of neck exercise. Then, I'd bring in some of the advanced techniques – such as pre-exhaustion, breakdowns, and negatives – to extend the set into that burning state for better results.



**ZE – If one were to specialize on a certain body part, how would we use HIT principles for this area? The training is already expected to be very intense so how else would we alter the HIT methods? Also, how long can we specialize in a certain body part with HIT training or does it depend on the muscle being focused on?**

ED – Generally, most HIT routines are performed by starting with the largest muscle groups and finishing with the smallest. In other words, work the lower body before the upper body and the torso before the arms.

In a specialized routine, for example the upper arms, I'd move the arm exercises to the beginning of the workout. Plus, I'd eliminate a couple of the exercises from the torso and legs – so the routine would be shorter.

Specialized routines are designed to be applied twice a week for no longer than two consecutive weeks. Then, you go back to the basic routine for a month or so before you specialize on another body part.

**ZE – When you have an athlete who is injured, either through the training itself or through an outside incident, how do you adjust HIT to work around the injury or do you take this as a sign to completely rest the body until healed?**

ED – I would not usually have an athlete completely rest his body after an injury, at least no longer than a day or two. If he has an injury to his right knee, for example, he can work his upper body. And with precautions taken, he can still train his left leg on certain exercises. Strength-training machines are usually more appropriate in such a rehabilitation setting.

Depending on the injury, but usually within a couple of weeks, I'll have an athlete began exercising the injured area by focusing only on the lowering or negative phase of related exercises. It's important to begin such lowering in only the pain-free ranges of

movement. Again, such training can be performed much better with machines than with barbells and dumbbells.

**ZE – Give us a HIT story from the “Golden Era” – what was it like back in the 70’s when Mike Mentzer and Casey Viator were wowing the world with their rugged physiques? Do you have any moments or workouts in particular that stand out from the rest?**

ED – Yes, I remember well one training situation. It was in January of 1978. Bill Veeck, the owner of the Chicago White Sox baseball team, had four of his best players come to the Nautilus headquarters in Lake Helen, Florida. Each guy needed a little extra conditioning before Spring Training in Sarasota. The year before, I had successfully rehabbed Eric Soderholm’s left knee to the point that he was one of the strongest men in baseball. And it showed because he won the American League’s Comeback Player of the Year Award in 1977.

I’m in the gym with the four White Sox players, including Soderholm, and I have just supervised the players through a HIT workout – except for one last exercise, negative-only dips. There’s a Nautilus machine, called the Multi-Exerciser, which has a padded belt attached to a resistance arm with steps at the bottom, so it’s great for negative chins and dips.

All of the guys, with the exception of Soderholm, have tried a slow-lowering rep with 40 pounds attached to their waist . . . and believe me negative-only dips can be tough to do at the end of workout. The three baseball players have struggled – just to do one SLOW repetition.

Now I bring on Soderholm. A year earlier, Eric did negative dips with 130 pounds around his waist. To remain conservative, I put 100 pounds on the machine, and ask him to do 8, which he does in good form. Then, I explain to the group that it’s possible for each one of them, to double his dipping strength, to go from 40 to 80 pounds, in as little as four

weeks. And doing so, I note, will make each baseball player bigger, stronger, and less prone to injury.

As I'm finishing my discussion, Casey Viator enters the room with his gym bag in hand. It's his workout day and he's going to change clothes and train. But first I ask Casey to come over and I introduce him as the winner of the 1971 Mr. America. I can tell that the baseball players are in awe of his 15-inch forearms and 19-inch upper arms.

Viator is friendly and he asks what's going on. I give him a quick summary . . . and then I say:

“Casey, why don't you show the guys how you can do a set of negative-only dips with the entire weight stack?” A couple of weeks earlier, I'd seen Casey do negative dips with the weight stack (250 pounds), at the end of his workout, so I knew it would be no big deal for him to do it first.

Viator drops his bag, steps into the belt, adjusts it with 250 pounds around his waist, climbs the steps to the top, and does a perfect 8-second lowering repetition. Once he's in the bottom, stretched position, he says, “What the heck,” and smoothly pushes himself to the top position. Rather than climb back with his legs, he uses his arms in a positive manner. He then does 9 more down-and-up reps in good form – without breaking a sweat.

Forget negative-only dips.

Viator did 10 normal dips with 250 pounds around his waist, which was one of the most impressive strength feats I've seen in my 45 years of being around great athletes. That day, I believe he could've done 10 reps with 300 pounds.

Mike and Ray Mentzer were also very strong in dips. Each one of them could do 3 or 4 reps with 250 pounds – but not 10.





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Casey Viator as he looked several months before he won the 1971 AAU Mr. America, at 19 years of age. Viator weighed 215 pounds and had 19-inch upper arms and 15-inch forearms.

**ZE – Dr. Darden, thank you once again for taking time away from your busy schedule to answer all these questions. As a pioneer and innovator I want you to know you have been a very large part of my motivation into the world of performance and physique improvement since my very first days picking up a barbell! Please let our readers know where they can learn more about you, your web site and any products that they can learn from.**

ED – Thanks again, Zach, for your interview. I invite all your readers to visit my Web site, [www.DrDarden.com](http://www.DrDarden.com). HIT has a lot to offer to athletes and coaches. And your readers, who are particularly interested in bodybuilding, should get my latest book, “The New Bodybuilding for Old-School Results,” which they can order through my Web site. The book helps supply bodybuilders, not with what they WANT, but with what they NEED:

*Harder and briefer training.*

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