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WEEKLY MUSCLE BUILDING EXPERT *Interview Series*



Interview with Chad Waterbury



LA: This is Luke Allison here with the CriticalBench.com Monthly Muscle Building Expert Interview Series. Today I'm here with Chad Waterbury. Chad, how are you?

CW: I'm great.

LA: I definitely appreciate you joining us today. Rather than do the regular introduction, I want to ask you sort of what you're doing at this point in 2011 and how you're still interested in weight lifting and projects and all of that sort of thing.

CW: Well, I've got my hands in a lot of different projects right now. I'm doing a lot of training with some fighters out here. I'm doing some projects with some schools, some MMA schools. I'm actually getting ready to head down to Buenos Aires to give a three-day seminar down there. So, I'm just...I'm busy all over the place. And then, I keep up with my articles and everything else and my blog and it's non-stop.

LA: It sounds good. I think people are sufficiently familiar with you, so we're hoping to have to not go any deeper than that. But, one of the things I really want to ask you about is "Body of Fire." What is "Body of Fire" all about?

CW: Well, "Body of Fire" is my body transformation system; it's a training nutrition system that's designed to strip off body fat super fast, but also, build a lot of athleticism. So, there's a lot of products out there that claim fast fat loss and things like that, but my whole goal was, I not only wanted you to lose fat fast, but just become a better athlete overall.

So, the workouts are really cool; it's not just the traditional stuff where you do slow cardio or lift weights on one day, do slow cardio or jog on the other days. It's really like a hybrid mix of workouts where I do lots of strength circuits, I do cardio-strength combos, and I do a lot of exercises that are explosive and faster than maybe you'll see with other programs.

One of the keys is because they found that the faster you lift, the higher the metabolic cost in the workout. The metabolic cost is really the key point of all this, because metabolic cost is just a measure of how demanding an exercise is on your system, on your body as a whole.

So, what we found is the higher the metabolic cost, the greater the benefit in terms of overall fat loss. Because, the Tabada Protocol, after the late '90s, is what really kind of shifted our thinking where he came up with this protocol that was very short, but intense and comparative to traditional cardio. And the participants who did the Tabada Protocol lost significantly more fat, even though they exercised for 1/10 of the time. The reason is because they induced such a high metabolic cost with the intense exercise that it up-regulated their metabolism for hours and hours after they left

the gym. I mean, that's the key point, is to do a type of training that forces your body to burn fat after you stop training. And that's the difference between an effective body transformation program and one that's traditional and much slower, which is like slow cardio and a lot of the typical things that people do to burn fat. Basically, they're only burning fat while they're doing it and it's not having a great enough effect after they stop training.

So, "Body of Fire" is just based on that concept of inducing a high metabolic cost, but it starts at a real manageable level and then with each week it progresses. It's constantly changing, the volume is changing, workouts become a little bit more intense, different exercises come into play and it's an outstanding 12-week program that the results have been just excellent for everyone who's done it. Again, another thing, what people love about it, they feel more like athletes at the end.

So, that then coincides with the nutrition plan that's laid-out and it's in really cool and simple way. I don't tell people what they should eat at each meal, instead I give them choices. Based on their body weight, they'll have a choice of like protein sources or fruit sources or vegetable sources or starches or whatever, and there's a list of all these different ones. It's already all broken-down for you, and it's just a matter of mixing and matching from the list based on your body weight. So, it's really user-friendly. Again, I'm not telling everyone to have a specific thing at each meal. Instead, you get a list of choices. So, people really like that.

So, the combination of the training program and the way the nutrition plan is laid-out, it's made it just a huge success. So, I'm very excited about it.

LA: One of the things you said that caught my attention was Tabada Protocol. That's something that's very interesting. It's familiar in athlete circles and things like that. Explain that for people who maybe might not be as familiar with that as they should be.

CW: Basically what it is, is it's alternating between a really intense, all-out effort for, say, 10-seconds, and then alternated with a short period of rest. Sometimes it's as short as 20-seconds, like he did in his protocol. So, it's just going as fast as you can, doing something. Like if you're sprinting, it would be like you're sprinting from an oncoming train for ten seconds and then you'd slow down and rest for just maybe 20 seconds and then repeat it, and repeat it eight or ten times. And if you do it like that, it's absolutely... I mean, it is really, really tough, but super effective.

So, the thing is, that's going to be way, way too intense for most people and Tabada even said that... He was quoted as saying that he wouldn't know why anyone would... The Hell he put his protocols through, he's like, "I don't know why anyone would willingly want to do this." So, what we've had to do over the years is manipulate, tweak the variables, keep it as close to the original as possible and make it a little bit

more manageable for people, especially with a really low fitness level, and then, increase the intensity over time.

But, that's basically what Tabata is all about. It's just high intensity interval training. You're going at a high intensity for a very short period of time and then having a brief rest and then repeating that for a number of rounds.



LA: And one of the other things I heard, just to sort of unpack for people a little bit, is sort of the long duration cardio, sort of putting that myth to rest. There was some research a while ago, a post-oxygen consumption. Is that where this is going? I have a feeling, possibly.

CW: Well, no, it's not just about that. I mean, that was just like the nail in the coffin, if you ask me, for slow cardio. There's a lot of problems with slow cardio. I work with a lot of athletes, so athleticism and explosiveness and reactive times and agility and just

all these rate of force development, all these factors are so, so important to athletic prowess. And if you tell someone to just go out and start jogging every day, it's going to basically make them less explosive. That's the first thing it's going to do. And that is terrible for power athletes. Whether it's a running back in football or whether it's an MMA athlete or whatever, losing your rate of force development or your explosive power, your ability to just turn on, to reach high levels of force very quickly is lost at low duration cardio. Because, it's slow and repetitive and not challenging to the nervous system, and it's not tapping into the motor units that you need to really train and develop for explosive power.

So, essentially, by going out and jogging for 60 minutes, what you're doing is you're training the nervous system to be very, very efficient at recruiting the low threshold, weak motor units, the motor units that don't have hardly any explosive force. You train the body to get really good at recruiting those, and really bad at recruiting the high end, high threshold, explosive motor units.

So, that's why this type of interval training or a more intense cardio becomes important. Because not only will it burn fat, but by doing like a really short burst of sprinting, like all out for ten seconds, or pushing a sled or whatever it is, throwing a heavy medicine ball, whatever it is, by doing that as fast as you can for ten seconds, you're tapping into the high threshold motor units, which are absolutely imperative for rate of force development and explosive power. So, you get the benefits of both worlds, because you'll tap... You'll train the nervous system to tap into the high threshold motor units, but you'll still induce a lot of fat loss. If you just go out and jog, you're just repetitively stimulating the low threshold motor units. So, from an athleticism standpoint, that's a disaster.

The second thing is it's hard on your joints, just jogging for an hour, three times a week. It's just our joints aren't...they don't like that. They don't like that repetitive, thousands and thousands of reps. That's why most people who start running get really tight hips and a tight IT band and that usually leads to a tight psoas and tight hip flexors and then it breeds all sorts of problems: lack of mobility, lack of explosiveness, back pain, knee pain, what have you.

But then, the other factor is, like you mentioned is, this post-exercise oxygen consumption. And it's kind of a complex terms and people can't sometimes wrap their head around it. But basically, it's just like this, people should just think of it this way. It's just basically a measure of how many calories your body has to consume to regain homeostasis after a workout. So, our body's primary goal is just to stay alive and maintain the homeostasis. So, that's why we have very high pH balance in our blood and things like that.

So, as soon as it's disrupted and the body has to bring it back down to what's normal. So, with exercise, we're disrupting the muscular system, the cardiovascular system, the endocrine system. This is all good. I don't want people to think disruption is bad. It just means that we've challenged it and now the body has to work to put things back to where it needs to be at rest. And that takes a lot of energy if it's a very intense workout.

So, the more you can challenge those systems, then the more energy the body has to use, ie, calories, to pull everything back into homeostasis. So, that's why high intensity exercise uses more calories, eats up more calories in the body, ie, fat and helps you lose fat faster than low intensity cardio. So, those two key factors are really critical.

LA: Probably a whole different topic about adaptation and things like that that we could get into. But, I think we'll stay focused on some of the other myths that you have related to "Body of Fire". And one of those is just eat less and your body is going to burn fat.

CW: Yeah, yeah. It's just not that simple. I mean, if just eating less was the answer, then many, many people would be a lot leaner than they are now. So, we know that...everyone knows the rebound effect with dieting. People starve themselves for a wedding or an event or a photo shoot or vacation or whatever, and then they end up gaining it all back. So, to me, that's not successful, even though they might have lost weight by eating less. It's not successful when they gain it all back.

So, it's really about controlling the hormones. It's about controlling the hormones and it's about feeding your body a lot of nutrients in absence of calories. So, I don't want people to misunderstand me. Eating fewer calories is important, but you need to replace it with nutrient-dense foods because what drives our recovery, what drives our endocrine system which drives our hormones, are nutrients.

So, a great example is, I can't remember who said it back in the day, but one of the experts said the reason you can sit down and eat an entire bag of potato chips, thousands and thousands of calories, and not feel full is because they have no nutritional value. So, the body is not ever getting a signal that it's getting nutrients, so it doesn't send the brain a signal to stop eating.

And that's why you could never eat 1,000 calories worth of broccoli. I mean, it would just be like impossible, because broccoli is one of the most nutrient-dense foods out there, and your system will... You could eat 200 calories worth of broccoli and be completely satisfied, whereas you could eat 3,000 calories of potato chips and not be satisfied. Again, it's has to do with the nutrients.

So, in the body, when you ingest foods with a very dense nutrient profile, then you eat less because your gut sends a signal to your brain to stop eating this. It's satisfied and all that.

So, what "Body of Fire" is based on is specific foods that are very high in nutrients and relatively low in calories. So, once you focus on really nutrient-dense foods, you really don't need to worry about counting calories, because you won't be over-eating. And that's another great thing about "Body of Fire" is, you don't have to count calories. Again, it's just everything is broken down into categories where it's just like you'll... Like, for instance, I'll say, choose one protein and one vegetable and you look at the list and just choose which ever one that you want, based on your body weight.

So, counting calories is a lesson in futility. I mean, you can't do it for long and you can't do it forever. It's okay for people to do it for a week or so, just to get an idea of how many calories are in which foods. But, it's just much easier to just focus on nutrient-dense foods, things like berries, things like certain vegetables, which protein sources you should have, which starches are better than others. You know, all these things that I won't get into here, because I get into it in "Body of Fire." But, that's the key right there.



LA: And that's just to keep it normal, because most people don't need to be in bodybuilding prep phase year around. That's just too difficult, to psychologically...

CW: Right, right.

LA: ...to follow what's given to you and go from there.

One of the other things you talk about is training to failure, and for a lot of people there is sort of no real barrier. There's just not real hard and then there's failure and then there's can't lift anymore. Put that in context, if you can.

CW: Put it into context what training to failure means?

LA: Well, just the idea of sort of how necessary that is or unnecessary or....

CW: Yeah, yeah. Well, training to failure is a lot like dieting, and the failures of both are very similar. People think that in order to make progress they really just need to suffer, and that's...it's just really kind of funny and ironic. But, it's like, with dieting, people, for the longest time, they didn't feel like they were losing fat or getting results unless they felt terrible, like they were starving and felt terrible all day long. It's like, oh, my God, I feel like crap. This diet must be great. I'm losing so much fat because I just feel terrible.

Well, it's kind of like that with training. It's like, people just think they need to like have their eyeballs bust out of their heads for the last few reps or else they're not going to get results. Or, they have to feel like they can't get out of bed because they're so sore. And then, it's like, oh, my God, this was the best workout ever. Like, I can't even move I'm so sore.

But, it's just... It's really kind of a... It's like self-inflicted damage that you don't need to do on yourself, whether talking about dieting or training. So, from a training standpoint, if you want to get into the science of it, the neuroscience of it, which is what I got my degree in and what I studied in grad school. Training to failure doesn't really make any sense because there's a positive correlation between your speed, your lifting speed and your force production. And then, taking that step further, there's a positive correlation between forced and motor unit recruitment.

So, it goes like this. Speed and force go up together, and then force and motor unit recruitment go up together. So, that's how I can make the leap that you can just say that speed and motor unit recruitment are positively correlated. So, in other words, they go up or they go down together.

So, if you're thinking about a typical set of whatever, 12 reps, or so, like with a 12-rep max and just picture a guy like standing there doing bicep curls. The first whatever 7 or 8 reps are about the same speed, and then about rep 9, 10 it slows down, and then 11 is really slow and 12 is just like agonizingly slow to get that last rep. Well, there's a dogma in bodybuilding forever that this last rep, this excruciating rep where you had to muster all your effort to get it done was the most beneficial one.

When it comes to building size and strength, it's all about recruiting as many muscle fibers or motor units as possible. And it's essential to recruit your largest, strongest motor units. This is the key.

Now, the thing with the largest, strongest motor units is, they only come into play after all of the other motor units have been recruited. So, it's called the Size Principle. So, what I'm getting at here is, when you're lifting, when you're doing a set of 12 reps and you're trying to go as fast as you can, but your actual speed is slowing down, what's happening is the motor units are dropping out. That's why it's getting harder.

So, think of it this way. Imagine your truck is stuck in the ditch and there's five guys, there's you and four other buddies who are pulling on the rope to pull the truck out. Now, imagine all of a sudden two of the guys just fatigue and stop pulling. You three guys have to work a lot harder, right? Well, this is exactly how motor unit recruitment works. This is why the last few reps of the set are the hardest, because motor units have dropped out.

So, the key point, though, that a lot of people don't know is, the first motor units to drop out are the biggest, strongest ones. The reason is because, the bigger, the stronger the motor unit, the less endurance capabilities it has. So, it's going to always drop out first.

Now, again, a dogma of training for years was that the last few reps were the most beneficial and this is where you get all your muscle growth. Well, that's BS, if you ask me, because if the last few reps recruited more motor units, the set would actually get easier, not harder. It's getting harder because motor units are dropping out, dropping out.

So, what you want to do is you want to stop short of failure, keep fatigue in check, and then rest and repeat the exercise again, or have the exercise in a circuit. This allows you to keep up your speed, keep up your force producing capabilities, which in turn ensures that you're recruiting the highest threshold motor units.

And what's so important about recruiting the highest threshold motor units is one, they have the most potential for size and strength gains. And two, when you're recruiting them, all the other motor units are being recruited, too. So, it's like you're getting the benefit of developing all your motor units.

Whereas, if you lift slowly, especially slower than you're capable of, like for years everyone was doing slow tempo training, which was just absurd. Because, what you're doing is you're leaving the biggest, strongest motor units untapped when you lift any slower than as fast as possible. And when I say as fast as possible, it's important for people to understand that I'm always advocating perfect form. I'm not saying that you

should just go crazy with your technique. But, with perfect technique, you should always try to accelerate, lift the loads as fast as possible and lower under control. And the other thing is, avoid failure. There's no reason to do it. It's just an extra drain on your nervous system, on your recovery. You're stimulating the wrong motor units at the end of the set. And you're just setting yourself up for really...you know, joint pain and stiffness and soreness when you don't have to.

So, that's my take on it.



LA: And I think that's really important for people to sort of ground that in the science and be aware of how necessary speed is in all of this.

CW: It really is. I mean, speed is the great equalizer. It's, as I like to say, faster is better, just across the board. It doesn't matter if you're looking for strength, if you're looking for power, if you're looking for hypertrophy, if you're looking for fat loss. All of it benefits by attempting to move faster or lift faster or engage your muscles, engage your power faster.

LA: One of the other things to try to get away from is this major sort of feedback loops, the late onset muscle soreness or the lactic acid or the inability to do the concentric reps where you have to have your spotter actually moving the weight, to really sort of get away from any of those much older ideas, I guess.

CW: Yeah, I mean, forced reps, it's just one of the dumbest things you can do. That makes absolutely no sense. I mean, if a barbell weighs whatever, if you're doing a 250-pound bench press and your motor units have dropped-out, so you can't complete another rep, and then you have a buddy help you lift it up the only person that's getting any benefit is actually your training partner, it's whatever amount of stimulation he's getting from helping you lift the barbell up. Because, it's doing absolutely nothing for you. It makes absolutely no sense.

It's like your muscles are dead. They can't lift the load, what is the purpose of having someone else come over and then pull up the load so they'll actually, you know, go up. I mean, it makes absolutely no sense. And it's really hard on your recovery. It's very draining on the endocrine system. And it's just...and research has just shown, it provides no benefit.

So, again, people like to beat themselves up and think that, oh, my God, this is so hard that the barbell is about to drop on my chest and my buddy had to come rescue it. That must be really great for building size and strength. I don't know what it is. But, I guess we're all masochists when it comes down to it.

LA: Yeah, probably have some explaining to do at the end of the day.

I'm not totally sure. At the beginning, you mentioned working with athletes and working with MMA fighters. I know that you've written about MMA training for quite a while. I found an article of yours that talks about George St. Pierre and it was five years old. Talk a little bit about being involved for quite a while already in a sport that's not every old.

CW: Yeah, yeah. Well, I really enjoy it because when I came to LA five years ago, I was working with an amateur MMA fighter who would fight locally here around LA. I was training him. He hired me because he needed more...he's a Muay Thai guy and had great endurance, but just didn't have a lot of strength and power. So, he hired me to help prepare him for a fight. And then, he actually won the belt in his division and all that. So, yeah, I've been... And that was five years ago, so.

And then I became a director of strength and conditioning for the Hicks and Gracie Jiu-Jitsu Center and then I worked with a lot of different fighters and I trained Ralek Gracie, the undefeated MMA fighter and all that. So, yeah, over the past five years, six years, I've been really involved.

And the reason is because, to me, I love a challenge. An MMA fighter has to be the ultimate athlete. He has to be strong, he has to be powerful, he has to have endurance, he has to have mobility, explosiveness. It's just... It's one of the most complete athletes you'll ever find or ever have to build, I mean, to excel at the sport.

So, for me, especially at this point in my career, I love challenges like that. Because, other sports, like for marathon running, you just...the person just needs a lot of endurance. You just need to run in a straight line, you know. And even other sports like powerlifting, you know, I love powerlifting, but it's just like, for powerlifting, you just need strength. You just need to just be strong, be able to pick up this barbell and set it back down. It doesn't matter if you can't jump or run two blocks without having a coronary. And mobility isn't a factor or whatever. And like the yoga, the people who are into yoga or things like that. Super, super flexible, but they don't have much strength.

So, you look at something like...you look at MMA fighters, and again, they have to be the ultimate athlete. They have to be hybrid of all these really important fitness qualities, all rolled into one. And it's a challenge to build someone's strength without really hurting their endurance or vice versa, or to really increase their mobility without decreasing their ability to develop stiffness in their strikes and all that.

So, that's why I enjoy it. And just as a whole, fighters are just really, really cool, good guys to be around. So, that's why I enjoy it.

LA: It sounds like those are all the things that you sort of want to have, and none of the things that you don't. I've heard similar answers from various people. And one of the other things that's interesting, just in reference to "Body of Fire" is, it seems like the training that works for people is beginning to look more and more similar. You know, have a much better understanding and grounding of the things that work. And so, the people that get results, their training looks similar.

CW: Yeah, yeah, exactly. And as I tell people, if you're looking to get in shape, and we all are, the more you train like a fighter, the better. So, this is why there's this really great carryover between like the "Body of Fire" and like how an MMA athlete would train. Because, they kind of need similar things. If you want to really get in shape, lose fat, as some muscle and just become a better athlete, you're going to be doing a lot of the things that an MMA fighter is going to do.

So, it's fun for guys to...even if the guy never wants to step in a cage or fight or put on gloves or whatever, you know, it's kind of...it's fun... At least what they tell me is they say it's cool to feel like you're training like a fighter, even if you're not a fighter.

And especially when people see these workouts in "Body of Fire", they'll see they're unlike most of what you've seen. So, it's a lot of really cool stuff and you're

never doing any one thing for very long. And you're constantly rotating between exercises. And as I said, the progression plan always ensures that things are constantly changing and you never get bored with it and the results are fantastic.

But yeah, back to your original point. It's really smart to try to emulate a lot of the things that fighters do. Obviously they're better conditioned athletes and they can reach a higher level of intensity or recover faster, whatever. But, to start with the same basic principles of combining these hybrid types of training into one workout, it's super effective.



LA: Well, and I think that's the other thing. You said the sport is however old you want to say it is. If you want to say it's 20-years-old, if you want to say it's 15-years-old, that's fine. But, that's so much younger than all of the other sports. Boxing you have the long, slow runs and endless bodyweight calisthenics and things like that. It's just on a much better grounding.

And then, you can be a woman and do it. You can be a man and do it. You can be at a different fitness level and it's just accessible, because it's what you should be doing. It's got the different aspects.

CW: Yeah, absolutely. Absolutely.

LA: I think that's about it. I'm basically out of questions, but I wanted to give you a chance, if people are interested in "Body of Fire", interested in some of the other things you've written, give them an idea of how to find you online.

CW: Well, you can go to my website at ChadWaterbury.com. I have “Body of Fire”, which is at BodyofFire.com, that’s my body transformation system. So, if you want to really burn fat fast and get in great shape, that’s the program for you.

I also have a book that I wrote for Men’s Health in Rodeo, called Huge in a Hurry. So, if your main thing is just you really want to get bigger and stronger, that’s definitely what you want to look into, Huge in a Hurry. And then, I also have another book that I’ve written called Muscle Revolution, which is just like a really good, all around, fitness-nutrition book.

Just for everyone to know, like if your primary goal is fat loss, you want to get into really incredible shape, “Body of Fire”. If you want to really just get big and strong without regard for losing fat or whatever, then Huge in a Hurry. And then, if you want like an all around, just good, like year-long fitness plan, Muscle Revolution.

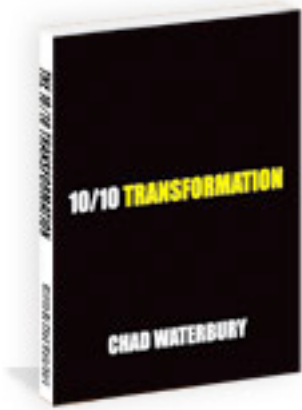
But then, I’m always...people can find me at my blog at ChadWaterbury.com. I have a training lab that I’m doing at T-Nation. I write for Fight Magazine. So, that’s another thing for people who are interested in MMA, definitely check out my articles in Fight Magazine. I’ve been writing for them for about three years. It’s a really great magazine.

And then, various things in Men’s Fitness and actually in Men’s Health I’m coming out with a little MMA workout. And this month, the May issue of Muscle & Fitness is a really good article called, “Failure is Not an Option”, and it’s about training to failure and the downfalls of it. They interviewed me for it. So, check that out, too.

LA: Perfect. Chad, I appreciate the time. Thank you so much.

CW: Thank you. Take care.

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