

Dr. Doug McGuff – Expanding 'Ultimate Exercise', Navigating the Realities of Running a HIT Studio on Autopilot, Crafting the Ultimate Client Workout Experience, and Delving into Muscle Hypertrophy and Steroid Side Effects

Lawrence Neal: Lawrence Neal here and welcome back to High Intensity Business, your one-stop shop for elevating your HIT business and fueling your passion for high-intensity training. This is episode 426 and this episode is with the one and only Dr. Doug McGuff.

Dr. Doug McGuff is the co-author of Body by Science, a research-based program for strength training body, and Complete Fitness in 12 minutes a week. He owns Ultimate Exercise, a personal training facility in Seneca, South Carolina, which provides high-intensity training using the SuperSlow protocol to help clients achieve their health and body composition goals.

And lastly, you can schedule a consultation with Doug for all things related to HIT training, health and fitness, medicine, and starting your own studio over at www.drmcguff.com.

Doug, hopefully welcome back and hopefully that was somewhat up-to-date and might need a bit refining but great to see you again.

Dr Doug McGuff: Yeah, that's awesome! I'm impressed, you could just like right off the top of your head say all that. It's incredible. The other thing incredible was like I'm amazed, is this is episode 426. (I know, right?). I was on episode 1 and 426 this... it's incredible.

Lawrence Neal: Amazing. Yeah. That is incredible. Yeah.

Yeah, and I was going through all our episodes today and I was thinking, you know what, Doug, you've not been on enough, you've not been on enough of those 426 episodes, so we're gonna have to try and change that going forward. (Yeah, I think so. I enjoyed 'em), but by the way, that wasn't off the top of my head, you know that, right? That was all scripted. That intro, I just had it right here.

Dr Doug McGuff: The fact that you can say it... you know, because I try to script the videos I do down in the studio and stuff like that's all in here, and then you just trip over

your words, and I mean, you just, boom... right through it. I guess 426 times is enough to have it down!

Lawrence Neal: Thank you. Appreciate that. So look, I'm as always really excited to talk to you and excited to kick off today's podcast. Obviously we're gonna, we are gonna touch on, so hopefully if we get there some training topics, some hypertrophy topics.

But I'm excited to obviously talk to you about business 'cause we rarely really talk about (yeah) running, studying, growing a high-intensity training business. I know there's a lot of changes going in your life regarding that right now, so I'm excited about that. So let's start off by, hearing from you in terms of an update about what you're doing in terms of looking into a second location.

Dr Doug McGuff: Yeah. So Ultimate Exercise in Seneca. We opened that in November of 1997, so it's been open for 26 years now. And it's running really well. It's running near capacity. But recently a phone consult client who I helped start a studio in 2012 has decided to retire. And I had the opportunity to buy up his line of MedX equipment.

So that's in the pipeline right now. Tracking down Dave Goalder to get stuff delivered. So Dave, if you're listening, gimme a call. It's hard to figure out how to load that truck and get stuff to you.

But yeah, so we're looking at some point of opening our second studio in a larger city. Seneca is quite small, so about 45 minutes from here is a large town that's very up-and-coming. If I describe Greenville, South Carolina it's like the Austin, Texas of South Carolina. So it's a pretty booming city. But as a consequence, we're actively looking for studio space. We came close to finding a good spot that we thought we were gonna close on.

Then we started to figure out as we became more adept at what we were doing, that for the client volume, we wanted to move through the place. There was not adequate parking and not enough nearby parking to accommodate what we wanted to do, so we had to bail on that location. So we're still looking at locations right now.

But the other thing is that in a larger market we're also having to look at, we're gonna have to modernize things. We need online scheduling. And we're gonna want to do it in a way that involves rather than purchasing large packages, we're going to want set it up so that it's like an automated monthly withdrawal membership.

So we're trying to structure things in that way. The other thing is UE has been open and running pretty much on autopilot for all these years. And I'm just wanting to upgrade how it runs from the business and from the client experience standpoint so that it represents what I would like the new studio to be like.

So when I open this new place, that the two places are congruent with each other. So there's some updates that need to be made along the way. And there's some things I chose to do at the outset of the business that have remained intact throughout its entire tenure that if I had to do over, I might do a little bit differently.

Lawrence Neal: So is it fair to me to say that you are, you're trying to almost systematize Ultimate Exercise One to copy and paste it into the new location? Is that too simplified a way of putting it or...?

Dr Doug McGuff: Correct. And it would be very easy to duplicate what I'm doing at Ultimate Exercise One in this other location.

From a business standpoint, it'd be very easy to copy and paste this current model, but what I'm fearful of is that in this larger city, the avatar is different. The avatar is younger. They're younger professionals, affluent, but busy, time restricted, and also more in tune with more modern technology in terms of convenience, in terms of being to do online scheduling and things.

Ultimate Exercise we run it desert island style. It's a day minder that you can buy at Staples, laying on the desk and pencils. That's how we run the schedule. I just... in a more modernized urban, younger market, I just don't see that going well. So I want to beta test and get it up and running at UE-1 so that I have a solid experience with doing it.

When we open a second location, rather than trying to iterate something completely different on the fly, I would like to have it tuned because I have a well-established business with a solid clientele to make this transition with rather than trying to like do it from scratch in a new market. I think that might be really suboptimal to try to do it that way and then have two locations that are operating on a different paradigm, I think would be, not exactly what I would in mind.

Lawrence Neal: Yeah. There's a bunch of stuff you said there, which I'd love to follow up on. But one of the things that I think is quite fascinating to a lot of listeners is when you talk about ultimate exercise being run on autopilot, I think a lot of our colleagues, a lot of my audience have that dream where they're like, oh, I'd love to have a studio

business where I'm like an absentee owner or, I've got other things going on in your case, ER Doc, consultations, et cetera.

Where it is very low maintenance for yourself. Can you talk about what that means and how you create that?

Dr Doug McGuff: Yeah, look first off, I think the listenership needs to understand that dream is not a dream, that's not what you want. It is it that dream can be a nightmare. Now, if you happen to be, – and this I have to openly admit, is a large percentage luck – if you happen to have or you have been vigilant enough to select good people that are running this place, when you are not around all the time, then it is going to go reasonably well. But there are still downsides to that. I think a better model to have is someone. Is that the place isn't running on autopilot, but that you have automated systems that make the place run well, but the garden grows best when the shadow of the owner is there.

So I think that you, as the owner of the facility, need to be involved to a degree that I have not been at my facility. To really optimally grow the business. Now, it doesn't mean that you have to be there pounding sand, training clients all day long, day in, day out, but it does mean that you need to be cognitively engaged with it on a full-time basis.

I think that's the best way. Now I'm working as an emergency physician. That sucks up a lot of my time. And currently, ever since COVID-19, we have been working overtime.

And probably half my days are off or after a late shift, which means that the next day is pretty much largely shot. There's not a lot of days for me to be engaged with it. So the fact that it's run well on its own has been very fortunate for me. But I don't think it's anything that I could teach or recommend to someone to do as a way to run your facility.

Does that make sense?

Lawrence Neal: So you It does. No, it does. So you're attributing a lot of that to luck. Luck, meaning you just got the right people and you lucked out with that, the right people who could handle most of the responsibilities and run the place without having to bother you so much. Is that kind of what you're saying?

Dr Doug McGuff: Yes. So stated differently, if you spin it up and you get it automated enough, where you think you are able to disengage. Doing that is like getting a gigantic

flywheel moving. If you can imagine a gigantic stone flywheel, initially you have to push really hard on it, and then you start picking up some speed, and once you get it up to full speed, it will tend to stay at that speed as long as you just give it a little push every so often.

It's like keeping a merry-go-round going. But if you are not there to give that little push every so often or frequently enough, the stall rate of that big heavy flywheel is really rapid. If you have the right kind of people there, they're going to keep pushing on that flywheel. But the risk is, and the danger is, you have the wrong kind of people there.

And if you're not there enough and you're counting on this run on autopilot, while you sip margaritas on the beach, then you may end up with a problem of trainers that start to behave inappropriately. Embezzlement. Your business could absolutely implode upon you. They could start doing things off protocol or that are not [in line with the] philosophy of with what you want your business to be.

They could start, without your knowledge, training clients on their own without you realizing that's just being stolen from you, or that they could be in the process of harvesting your clients to set up their own studio. So the idea of being, the studio on autopilot and disengaging is a fantasy that will turn into a nightmare.

I think the more important thing is, and Luke covers this better than anyone, is just to have it systems and processes in place that ensure that the flywheel keeps on spinning. And then you are an owner that can come in and just push that flywheel to keep the merry-go-round going when it needs to, and not just be pounding sand, training clients all day, every day, unless that's what you want to do.

Lawrence Neal: Absolutely. I feel like that perhaps most effective thing that you can do to be a quote unquote absentee owner, and something that probably most people can't afford to do in the beginning, or, and maybe it's something you work up to, is you hire an operator, right? You hire a general manager who is then responsible for building systems and managing the team, and making sure that flywheel does get a push every now and again, and that all the trainers and staff are behaving appropriately and in line with the strategy that you set.

So I think that's one way you can achieve this and maybe stop it from becoming a nightmare. But I'm, I am curious when you say the downsides, maybe you've covered it. Is that kind of what you're alluding to when you said that dream can become a nightmare is you're not there? Trainers are doing what you're saying they're... Maybe they're embezzling money, maybe they're train people on their own...?

Dr Doug McGuff: Yeah, there's just all sorts of things that can happen. You're gonna have to...

That notion is a fantasy that you're gonna have to let go of. If you're gonna have a business, you're gonna have to manage the business and be part of it. And I think the biggest thing that I can say about my running this place in the context of my career as an emergency physician and how little time I've had to put into UE on that side of the equation is, and on your podcast and on your website, we spend a lot of time talking about all the little nuances of running this kind of business in the same way that we talk about all these crazy nuances of training to try to optimize things.

But here's the cool thing, and this is what Ultimate Exercise has proven to me, is that if you are using a good protocol, good equipment, good trainers, and you are delivering, at baseline, a really high-level effective workout that is an entirely unique experience compared to anything else in the fitness industry that anyone has ever experienced. So if you have a studio that's delivering good workouts, that's 98% of everything. A good workout is 98% of your marketing. Because if someone comes in for an intro session and you give them a good intro session and an experience, they're not gonna walk out of there and not talk about it to a bunch of people.

This is properly delivered workouts are just so powerful because people can't keep their mouths shut about it. And that's what's made Ultimate Exercise thrive. It's been almost entirely word-of-mouth. And it's the fact that, on the front end, I optimize the environment. We use the training protocol and good equipment.

It is just an incredibly unique experience for anyone that walks into the place and that's what's made it be able to run the way that it's run over the years. It's the workout. That's the answer to everything. When the workout's good... there, there's plenty of reasons you can fail, but it should never be because of the workout just didn't blow people away.

Lawrence Neal: Yeah. Thank you Doug. Yeah, just to mention it and perhaps you listened to it the last episode I did with Luke on on this exact topic. I'm talking about, people aren't Facing the facts that actually the product needs attention. The workout needs attention's, not the marketing.

That's the problem. So I won't go on about that more here 'cause I think that, listeners can tune into that. Sorry, go ahead.

Dr Doug McGuff: Yeah no, I did listen to that. Yeah. So I really did love it. One of my most favorite quotes was something to the effect that marketing is the price that you pay for a sub-par product, you know, if you think that's the solution... (garbled).

Lawrence Neal: Do you find as someone, and I'm assuming you've really done no paid marketing or much in, you mentioned they're not much in way marketing for UE. Does that, I said this I'm just curious whether this resonate with you. Does that liberate you thinking, "oh man, I can grow this business and I can just create a great workout and continue to deliver consistent, great client experiences and not have to become, excellent at Facebook ads". Because knowing you, I feel like that's the last thing you wanna learn about.

Dr Doug McGuff: Yeah, I you know me well enough to know that I suck at that kind of technology. No, it's not so much that. So I've done advertising campaigns over the course, of course, of Ultimate Exercise.

We've done radio ads, we've done TV ads, we've done print ads. And some of them have... none of them have really worked. The print ads did not work. The TV ads brought in a few clients, but the stick rate was low. Enough to justify spending it. So it would be a break even.

You'd spend \$2,000 on an ad and you'd end up maybe retaining two clients over a period. We did one on radio that was one of these popular talk radio stations that brought in literally dozens and dozens of intros, of which two converted and one stayed long term. (Oh, wow). So we ended up giving away 60 or a hundred free intro sessions to retain one client.

What has worked beyond a shadow has all of our business cards on the back have free introductory workout, and you can write the name of the person that referred you on the back. So we give a handful of our business cards to our clients for that, say, hand these to your friend and write your name on the back.

Client referrals are where you generate new clients more than anything else. The other thing is if you can manage to do speaking engagements so you can put on a seminar in your facility, and ask your clients in exchange for a free workout to bring a friend, every friend that you bring that helps finding local businesses or companies that will let you do a lunch and learn and speaking to those actually have a good capture rate.

But the hard part is like just walking in the door and asking. And then outside of that, the number one thing that you can do to get clients is just walk up to people and ask them to come train at your place. If you see someone that looks like they're into fitness

or someone that needs your service, like an elderly person that's having a little trouble going up the steps, walk up to 'em, introduce yourself, hand 'em your business card, you just gotta overcome the activation energy of being bashful.

That'll grow your facility. If you got one client a week at the end of the year, by those mechanisms, you'd have 52 new clients. If you got one a month, you'd have 12 new clients at the end of the year, once you've met your expenses, the addition of 12 clients is a massive improvement in your month to month revenue.

Lawrence Neal: Yeah. And just people don't think that I'm saying, "oh, no, service is all that matters and product", I'm still a huge fan of generating additional leads through other ways. Let's not forget that. Yeah. I'm a fan of both and, but I would love to hear Doug It's really interesting to hear about those other proactive methods you've used and endorse.

But also love to hear though, like you said, you're generating a lot of referrals or have done, and that's how you've grown you to a large extent. What does your workout experience look like? I know we've all, we can all hazard a guess. We've seen enough video footage of you on YouTube and that kind of thing, but I'd love to hear like the process, like when a client walks into your door, can you give us an overview from start to finish?

Dr Doug McGuff: Are we talking about an established client or someone brand new?

Lawrence Neal: Let's talk about an established client or maybe both if we've got time. Start with the established.

Dr Doug McGuff: We have at any one time, three to four trainers that are working in the facility. They do cross- cover for each other and they do move about the schedule, so all clients potentially train with all of our instructors.

But over time, I would say most clients work predominantly with one instructor. But regardless of who the instructor is, the relationship is pre-established. So they walk in, there's some greeting in the front office and small talk. And then, their machines are set up ahead of time. That's part of our process... is that there's enough flex built into the schedule so that behind the double doors, every machine that they're gonna do on the workout is already set up for them. So there's some, "Hey, how's it going?" small talk, "oh, you had a good trip? What was that like?", blah, blah, blah. Go through the double doors, and once you're through the double doors, it's business.

So they come in and they're like, "we're starting out on compound row today". And then they go and get on the machine and then they get started. And it is not strict, crazy, super- scientific, SuperSlow protocol with every client. Because clients exist across a continuum of what they're able to do in terms of effort.

And we've learned with each individual client what it takes to get out of them, what we need as best we can. And that's what happens. It's iterated on the fly and developed over time. One person may just be a total beast and all they need is a few words of input to keep them on track.

Other people require a whole lot of verbal instruction and encouragement because they're just less that way. But we know who's who. So they'll go through their whole workout machine by machine. Some of a lot of talk, some with very little. But in the end, we've gotten the most out them that we can, that generally will last anywhere between 12 and 20 minutes.

Then you go out the, you give them their cup of water, they go out the double doors, they sit down, the clients cross each other. So there'll be some conversation with the next client that's waiting out there, a little banter back and forth out in the front office, but then the next one goes through the double door.

What we count on is the conversation that's occurring between the overlapping clients allows the instructor to set the machines for the next one. And generally while that's going on, the instructor's back there sets up and then they poke their head through the double door and says, alright, we're good to go.

And then the next client comes back, and that's how it goes all day long for, on average, 20 to 25 workouts a day. A busy day can be as high as 33 workouts.

Lawrence Neal: Six days a week, or seven days a week.

Dr Doug McGuff: Five.

Lawrence Neal: Five. Okay.

Dr Doug McGuff: Some Saturday mornings if we have overflow.

Lawrence Neal: Great. Okay. That's so interesting. Okay so how do you book out 30-minute slots or is it 20-minute slots? How does it

Dr Doug McGuff: work?

It's 20-minute slots, so we're booking three slots per hour. There are some people, because of, there are some people that their slots actually take 30 minutes.

But we know to book that 20 minutes on either end to allow the overlap to occur in the middle. That happens a few hours per week. There's a few people because of mobility issues, things of that nature. And there are a handful of people that are just from they have Wolverine-like recovery and stress tolerance that it takes longer just to really whack them.

So they're the extremes of the spectrum. Some people that are weaker have disabilities or mobility issues that the workout takes longer. And then there are a couple of just animals that unless you just, unless they're crawling out of the studio, they're not happy. So we have a few hours a week where the sessions run long, so we'll book 20 minutes on either end.

But by and large, it's broken up in 20-minute slots, and most of the clients will finish up between 10 and 20 minutes of their workout.

Lawrence Neal: I love the Wolverine metaphor. I've not heard that one before. That's you're, you have a talent for those types of metaphors. No, that's so interesting. It's funny to hear you talk about this because it's so interesting to a lot of the problems I hear, a lot of the little nuances of this business dealing with certain, certain clients who, like you say, need a lot more... intensity. I need to feel like they're, like you say, calling out.

I'm just picturing the like you say, the banter that must take place when you've got someone who's fresh in the waiting area and someone who's just coming out haven't been just totally crushed.

(Yeah). And I bet it, I bet you get so much of that, like, playful dread, right?

Dr Doug McGuff: Overlap is, there is a comradery there of the person going in versus the person coming out. (Yeah). And we have a saying in Ultimate Exercise, "if you walk through these double doors and it looks like nothing much happened, then nothing much happened".

And that's our philosophy, it's, " you're gonna come in looking one way, you're gonna come out looking another", and that's the goal.

Lawrence Neal: Yeah. I love the idea of having that boundary, having the two separate rooms and two different...

Dr Doug McGuff: The next studio may or may not have that. It may have a reception desk and then everything's out in the open.

The other thing that's probably gonna happen in, in the larger city when we set up another studio is Ultimate Exercise was in 1997 when I opened it what Luke would term a "passion project". So when I opened that studio, it was Ken Hutchins' ideal exercise environment and complete privacy. And it's been that way ever since.

And that's the way that cadre of clients where their expectations are. And this is one of the things that if I had to go around and do differently, is that I would have the training area have a predetermined decorum that's known amongst all the clients, such that you could have multiple trainers and multiple clients back at one time. And there was an etiquette of behavior back there that allowed that to happen. Because what happens is now, I get to capacity on five days a week.

I'm gonna reach capacity around 120 or 130 workouts a week, and then that puts the cap on what your revenue can be. So if I had to do it over, I would have my clients very well conditioned on what the etiquette is back in that training environment. Now, from time to time, we have someone that has to traverse the training in our bathroom and changing areas at the very back of the facility.

So from time to time we have people that have to traverse the training environment while training's going on, and they know to barely crack the door and tiptoe and go back and not be a distraction. I would take that kind of philosophy and train it into my clients so that I could be cycling two or three clients back at a time.

So at full capacity, you would be training nine clients per hour, not three clients per hour, and then your facility could scale to a much better revenue and without, I think, compromising the client experience as long as the etiquette was understood.

Lawrence Neal: Yeah, and I love it how, Luke puts this, it's, if I remember rightly, it's making the client feel like they're in a bubble with that trainer, even though they're surrounded by workouts.

And as long as they get that undivided attention, it's not really going to degrade the experience.

Dr Doug McGuff: And that's the thing that, I'm starting to realize over time is that sort of thing is doable. You have your clients become conditioned to complete privacy... (garbled)

It is very doable because when you have a one-on-one instructor relationship going on there, one instructor, one client, and you're being vigilantly watched by a professional instructor, you are in a bubble. When you're training that hard and you're supervised that closely, the facility could be on fire behind you and you wouldn't notice it.

If it's done right. So the fact that there's other people in the area, as long as you're enforcing an appropriate kind of etiquette, I don't think is a downside. And it does allow you to scale your facility, and I think that's important for people to consider on the front end when they're starting their studios.

Lawrence Neal: Yeah, agreed. I'd like to switch gears if we may, Doug. I love talking about this stuff as but I also wanted to touch on one of your recent YouTube videos, talking about hypertrophy as a negative side effect. I thought this was a really important reminder to a lot of people, and I don't think this gets talked about enough.

So I was really grateful to see you do that. I guess it would be prudent to just maybe talk about, give an overview. I know you did this on a video as well, but maybe just give an overview of why hypertrophy is a negative side effect and how that happens.

Yeah. It's a complex topic, but it's one I've been fascinated with lately because if you are, like me, you watch all this training stuff on YouTube, so all this stuff starts to get loaded in there and you're watching it and how much effort in terms of thought about protocol, goes into trying to produce a hypertrophy response, and you look at it all and you're this is just crazy. There's so many different approaches, and the goal is to produce hypertrophy. And it started to dawn on me that that's just one of the many effects to an adaptation to hard physical effort.

That really from your body's standpoint is a necessary evil or a side effect. And in the early stages of training, that side effect happens rapidly and is very visible because it's an incremental change that has never occurred before. So we all get hooked on that. And it goes up and then it becomes asymptotic.

And when it becomes asymptotic, we want more of the up and we keep doing things to try to force it without really understanding the process. So the first thing is hypertrophy is a necessary side effect of getting stronger. You do have to incorporate more contractile proteins. Become stronger. You have to incorporate more enzymatic proteins within the cytoplasm of the cell to become stronger.

You have to increase the cytoplasmic volume of the cell in order to keep the spacing of those thicker filaments appropriately spaced so that they can mechanically function well. When satellite cells get activated, you make new muscle fibers and new sarcomeres. They have to decide based on the muscle and its force-producing characteristics and the angles of attachment, whether it's better to incorporate those fibers in parallel or in series.

And all those things are done in a manner to create the most results in terms of force capability, in the least amount of space possible, i.e., the least amount of hypertrophy possible. That's the goal of Mother Nature. I don't know if you've ever heard of the Fibonacci number.

Lawrence Neal: Rings a bell, but go ahead.

Dr Doug McGuff: So basically it's this thing that Mother Nature does and it's recapitulated in Mother Nature. It's one plus one is two, then two plus one is three, and then two plus three is five, and five plus three is eight. And if you take that as like you're going around a spiral and you're changing the diameter of it, guess what you get the shape of? A nautilus shell. Guess what you get the shape of? A wave crashing into the beach. If you look at the ratio of a dogwood flower, it's that same ratio of one preceding to the one afterwards, and basically, that's Mother Nature's way of packing the most amount of matter into the least amount of space possible.

So that Fibonacci number is represented everywhere. The angle of pull of a myosin head on an acton fiber is in concordance with the Fibonacci series.

Lawrence Neal: Is that a law? Is it, is that a scientific law?

Dr Doug McGuff: It seems to be. It's just a pattern that's produced over and over again in nature. But the bigger concept is that nature wants the most economy possible.

That's how it seeks out quality is by packing as much effective whatever into the least amount of space possible.

And that's where hypertrophy that is disproportionate is hard to understand. It's made much harder to understand now in the age of performance enhancing drugs because the way nature does this is it puts governors on this process. Myostatin probably being the best known one, but there are multiple different governors on how big this response can become.

Because if you think about it, just increasing the size of your bicep muscle, at some point, hypertrophy becomes the diminishing marginal utility of any additional mass rapidly falls off. Because as you build more mass in this rounded shaped muscle, the angle of pull of the fibers that you're adding, you cross a threshold where the weight and cost of that fiber, relative to the mechanical efficiency of its angle of pull becomes negative.

So you have to do something to deregulate that to make it happen. And optimizing the stimulus is not gonna do it. Optimizing your recovery is not gonna do it. You're gonna have to do things that remove the governor from that process. And that's what all these performance enhancing drugs are.

Now you can go on TRT, which as I loved hearing Skyler say, "steroids" (in a deep, low voice) (yeah, ha ha), and all of a sudden, you've lifted that governor a little bit. But most of the people that are on the Internet giving advice about hypertrophy from the training side of the equation are failing to acknowledge that really that training advice applies only if you've taken measures to disinhibit that governor to allow that to happen.

Lawrence Neal: (Doug stands up to retrieve a book, then sits back down, showing the cover of the old book toward the camera, and then he begins to flip through it) This is a book...

Oh yeah.

Dr Doug McGuff: ...Perry Rader wrote this, and I'm not sure what year it was written in... And I don't have my reading glasses with me, so it may not work out. Let's see... 1946... this book was written. Okay, so these are the most... this is George Eiferman .

Lawrence Neal: Yeah, looking good.

Dr Doug McGuff: Most, most muscular people of their era, That's something that...

Lawrence Neal: Yeah... for those, for those listening this is just a... obviously a book that's published in the 1940s. It's quite an old-fashioned book, and the physiques look very reasonable. They just look like people with good genetics about performing...

Dr Doug McGuff: And here's the model of the program that they're using.

Lawrence Neal: Yeah. Great.

Dr Doug McGuff: This is state of the art, pre-performance enhancing drugs.

And that's where our expectations should be if we're not gonna do that. But there's just so much that delimits that and that if that's gonna be your main focus, then I think you're just gonna be forever frustrated. But the converse of that, and, we've seen pictures of you, pictures of Skyler in lean condition. It's like, If you strip away the body fat to demonstrate what's there, and you look what Drew Baye's been doing recently...

Lawrence Neal: Yeah, he looks great.

Dr Doug McGuff: And it's if you just strip away the overlying body fat to where it is visible enough, it's astounding. And when you compare yourself to the rest of the population, you're in a fraction of the upper 1% just to get in that kind of condition. But we see all this stuff on social media and the internet that just really skews our expectations.

And in terms of adding contractual protein, I was review reviewing a research article recently about all the mechanisms of hypertrophy. Do you know what percentage of muscle protein is contractile proteins? (No idea). 10%. (Right). So 40 to 50 percent of the protein and skeletal muscle is enzymatic in nature, and the remainder is mitochondria.

So very little of the entire protein content of the skeletal muscle that we're trying to replenish with our one-gram-per-pound of body weight per day is actually oriented towards that component of hypertrophy. A good amount of that has to do with the volume of the muscle cell itself, that you're storing enough glycogen, perhaps you're taking some creatine, but then the enzymatic processes to support contractile elements, all these enzymes are large molecular weight molecules inside the muscle cell that requires it to have more cytoplasm.

So there's lots of components to hypertrophy outside just the contractile elements, but regardless of how they all add up, and we still have no idea through whether you're using three-dimensional ultrasound, MRI, needle biopsy techniques, we still have no idea what component of what of all of that actually accounts for the macroscopic, visually evident muscle hypertrophy. We have no idea what is actually accounting for that.

Lawrence Neal: Yeah, amazing. I'll definitely point everyone to your video of this 'cause it's far more detailed and we're running out time now and I wanna focus on something else for a moment.

But just a quick overview. You mentioned a number of things there as to how muscle is, negatively regulated in the body, muscle growth. But just so I guess, elaborate, you talked about myostatin being an important governor of that and you used the example in your video about, Wendy, the Whippet.

And all the animals who have mastered, depressed, suppressed, and what that, how that manifests in these really muscular animals who never hit the gym. Then you talk about a couple of other reasons why muscle hypertrophy is regulated. It's fascinating. I'm just curious, not that I'm at all interested in doing anything like this, but in terms of the way performance enhancing drugs lift the governor of muscle groups... oh, sorry, of muscle development or muscle growth – I understand that they, one of the things, mechanisms that they might suppress the expression of myostatin, so then that will help with muscle growth. But I'm curious, what else do they do if you, how, where you are with this that will that will really help optimize muscle growth?

Dr Doug McGuff: Yeah. There's several things. One is it's going through receptors on the cell surface. Transport that steroid molecule down to the nucleus to turn on messenger RNA in order to just... if you can think of it being an assembly line just making that conveyor belt run much faster and generate protein at a higher rate.

So that's a significant component of it. Some of it is releasing the inhibition of myostatin. Some of it is going to be just through energy signaling pathways to upregulate and ramp up mTOR so that you are elevating protein synthesis to a degree that would normally not be allowed.

Lawrence Neal: Will exaggerating, like, the anabolic side of it, and mTOR, is there any evidence that might be linked to like cancer growth or anything like that? In this context?

Dr Doug McGuff: Theoretically, yes. But I think in terms of the degree of performance enhancing drug usage, the thing you gotta remember about any drug that has a therapeutic effect, it will have side effects because drugs don't a therapeutic effect; drugs just have an effect in the body, and that effect will be on multiple different systems of the body. So when you take a steroid for the purpose of increasing your muscle mass, the muscle mass is the therapy that you're wanting to address, but other things are happening that go along with it.

Those are other effects, but when they're not the effect you desire, we label them side effects. Probably the most profound example I can make of this is the pharmaceutical industry was trying to research a drug to lower blood pressure, and it had this side effect of causing an erection. But then some marketing genius went, "Hey, instead of

a blood pressure drug that gives you a boner... now we're gonna have a boner drug that gives you hypotension as a side effect!"

So you could be taking steroids because you're anemic and you want to increase your red blood cell volume. But really you're taking steroids to increase your muscle mass. The side effect is you're increasing your red blood cell volume, your blood volume and therefore your blood pressure, and you're also becoming hypercoagulable.

So you're gonna be a lot more prone to have hypertension. You're gonna have more vascular disease, you're gonna be more prone to develop blood clots. When you layer multiple different drugs with multiple side effects, the side effects of one drug amplify another. So that's why every that's why you see so many bodybuilders that are using a whole host of performance enhancing drugs dying in their thirties, forties, and fifties. It just comes with the territory. There's no escaping that.

Lawrence Neal: So there's like, when you stack them so much, the complexity of that, the number of reactions and the more kind of effecting one another is that what's happening here is that's causing these.

Dr Doug McGuff: So side effects amplify on each other. But also, all these different drugs that you take... the vast majority of them will be metabolized hepatically, because that's what the liver does. But if your liver is occupied with anabar and is, or just any given drug and you add another one, then the metabolize metabolism of the drug that you've taken is now compromised.

So the serum concentration goes higher when you add another drug because you simply have tasked the system with a metabolizing an additional drug, so it stacks up more in your bloodstream, like the side effects of an individual drug are going to be elevated because its concentration is elevated and the metabolizing of its byproducts is therefore compromised.

And a lot of times it's the byproduct or the downstream metabolites of the drug that you took that have these bad side effects. So the more you layer one on top of the other, the more problems you're gonna have. If you're gonna use anabolic steroids and insulin as well in order to drive insulin-like growth factor one, drive that up. The side effects are gonna be synergistic and bad.

Now you're gonna be a hypertensive, pro-inflammatory disrupted cholesterol metabolism person. Your risk of dying of a heart attack or a stroke are now exponentially higher than they otherwise would've been.

Lawrence Neal: Yeah. Wow. Okay. It's starting to make a lot more sense to me as to why we're seeing these young influencers passing away.

Doug, thanks so much again for making the time today. Yeah. I really appreciate it. I'm guessing as we spoke about before, the best place to send people these days is still www.drmcguff.com to learn all about your resources, is that correct?

Dr Doug McGuff: Yeah, that's probably good launching spot and everything. If they wanna do consults, you can access that there. Instagram page for me, [Ultimate Exercise](#) – that's largely been a personal Instagram page. As we move into tuning up this studio in preparation for opening a new one, we're gonna have a business-oriented Ultimate Exercise page, [Ultimate.Exercise](#).

There's no content on it yet, but that, that should all link through the website. And I'm gonna get a dedicated Ultimate Exercise website rather than one buried inside of DrMcGuff.com. That'll be up soon, but for right now, DrMcGuff.com would be a good place to start.

Lawrence Neal: Do you want some accountability, Doug? Do you wanna announce, like on the podcast, "I'm gonna have my second location live by this day", or would you not dare do that?

Dr Doug McGuff: Not with my life! I was, until we figured out this parking situation, I thought, "oh, we're gonna open doors October 1", but then, yeah, it's tough because it's a booming city, but it's a city that's booming through a gentrification process. So you have nice locations for a studio that are exorbitantly expensive. You have places that are a little bit more reasonable, but they are nicer places that are in a gentrifying area that's like you got a nice studio in the middle of the hood kind of transition going. So finding a good location is going to be key, and that just takes a little time.

And that's going to... as far as I can tell, that's probably gonna be the rate-limiting factor. Although when you're doing things on your days off, which are limited, it feels like you're moving at a snail's pace. But it'll get there. It's gonna happen.

Lawrence Neal: That sounds great. I'm excited for you. And just before everyone heads off, please grab your [free PDF Guide on how to turn your HIT business into a referral machine](#). It's a short, simple step-by-step guide how to get more referrals for free now. You'll also get full length training video with Discover Strength's Luke Carlson.

And we all know Discover Strength is one of, if not the most profitable boutique studio concept by studio in the world. So you know what they're talking about. They've been



referenced enough today. You can go to HighIntensityBusiness.com/ref, that's R-E-F, short for referral and download that now. Or you can just look at the link in the description to wherever you're watching this video, if you're watching the video, and download it there. HighIntensityBusiness.com/ref.

Doug, thanks so much. Great to see you enjoy this as always. I love the massive change in topics. We did that, but I think it was still very enjoyable for everyone to, to listen to that. For everyone listening, to get the show notes for this episode please go to HighIntensityBusiness.com and search episode 426.

And until next time, thank you very much for listening.