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doing this at home will give you phenomenal overall results with not so much time investment and it's not so difficult we're talking about a sub total of really yeah yeah doing that per week will radically transform your body Dr Michael Israel is a leading Sports scientist who provides noons science-based strategies on muscle building fat loss and helping people maximize their Fitness potential my mission is to get everyone in as good of shape as possible with minimum time investment so where do we start so it's the consistency that matters doesn't matter if it's 2 hours a week or if it's 18 hours a week if you're consistent you can get amazing benefits and then there's specificity which is the most important principle in all of exercise science that's telling yourself okay I want bigger biceps and then focus on that and also every real working set should be challenging is there a perfect amount of repetitions to do there is it's a trade secret but it's how long will it take me to lose the muscles that I've gained if I don't go back to the gym after about 2 weeks of not lifting we start to lose muscle but most people think oh my God another 8 months just to get back to where I started but when you gain an initial amount of muscle it never goes back to the same size as when you started it's just always going to be bigger and then got a couple of hours a week I just want to get a bit leaner and I want to gain some muscle okay the first thing we do is Dr Michael are there any supplements you suggest I take whey protein casum protein what about steroids Jesus Christ I'm really going to say this he's recently on like a boatload of steroids there are a few downsides what are the downsides that no one's talking about they're unspeakable you really want want know this is a sentence I never thought I'd say in my life um we've just hit 7 million subscribers on YouTube and I want to say a huge thank you to all of you that show up here every Monday and Thursday to watch our conversations um from the bottom of my heart but also on behalf of my team who you don't always get to meet there's almost 50 people now behind the dire of a CE that work to put this together so from all of us thank you so much um we did a raffle last month and we gave away prizes for people that subscribed to the show up until 7 million subscribers and you guys love that raffle so much that we're going to continue it so every single month we're giving away money can't buy prizes including meetings with me invites to our events and ,000 gift vouchers to anyone that subscribes to the DI CE there's now more than 7 million of you so if you make the decision to subscribe today you can be one of those lucky people thank you from the bottom of my heart let's get to the [Music] conversation Dr Michael what is the mission that you find yourself on in this phase of your life for those who would like to get everyone who would like in as good of shape as possible with as minimum of a Time investment injury probability and inconvenience in in general as possible and the highest likelihood of best results while trying to completely excise doing anything that is pointless and also I say this politely telling people things that aren't true we're trying to get as many people fit leaner more muscular more flexible healthier Etc as humanly possible to the extent that they are interested in that sort of thing because not everyone's into fitness and I understand that I mean I think I look kind of you know freaky and it scares certain people so I have a lot of time for that but if you want to get fit uh we're trying our best what are the the big myths that end up standing in the way of most people when they when they hear this conversation now what are the most frequent rebuttal that you'll get when you say that someone can get in shape and be be lean with limited time two super common ones are I don't have the time to work out and into that time to work out is included I don't have regular gym access or I technically do but I'd have to drive to the gym I just don't have the time of the bandwidth where I don't have the scheduling positioning in in my life to do this sort of thing and baked into that is the assumption that getting much healthier and much leaner and much more muscular takes like an inordinate amount of time one of the most common questions I get out in the real world when people happen to look in my general direction because usually people just kind of go like what the hell is wrong that guy's head but uh one of the most common questions I get is how many uh hours a day do you work out or how many days a week do you work out and every single person is expecting an answer that is kind of like asking the tallest basketball player you've ever met how tall they are you want an answer that's like 2 and 1 half meters you want something meaty and if they tell you like well I'm a

meter 90 you're kind of like is that that cool and every time I tell them how much I work out which is really like it at my real like trying to be as good as bodybuilding as possible is really eight hours a week and this is to do this insane thing for people just trying to be fit and healthy Etc where talking about a sum total of 1 hour per week split into two or three 20ish minute sessions something we'll be trying later on is such a huge stimulus and can radically transform your body especially if you have attention to nutrition and that's the second thing that's a big Dogma big myth is people have ideas about what comes into nutrition and nutrition for being more lean more muscular and healthier they have all these kind of a constellation of ideas um uh Economist and philosopher Thomas soell calls them Notions so if you have a hierarchy of understanding you have Theory at the top which is like gravitation Evolution things super super confirmed just beneath that you have model like uh the standard model in physics is not quite good enough quite good enough support be a theory but it's very well understood space with a few Mysteries under that you have a hypothesis which is you know you have a real good idea formally phrased and underneath that you have a notion and an ope's just things people say and people are like uhhuh and no one even asks or answers about is this really true and so when you talk to people about nutrition or they talk to you about why they're not in such great shape another thing I get is when you're pretty jacked and lean and you sit next to someone on a plane they treat you almost like a religious figure like a priest or an imam and they're like apologize they're like Co you look like you're in good shape I just haven't been to the gym and I'm like I love you as a human being no matter all the time really all the time they apologize for the state they're in more or less yeah or they see me eat a protein bar and they're getting like the food on the plane and they're like this is bad for me huh and I'm like no it's actually quite fine and I always a little bit confused so all these ideas people have about nutrition organic artificial sweeteners are bad glutenfree GMOs um you have to have very meticulously well-prepared meals there is a ton of food that's huge laundr list of food that's unhealthy and bad for you makes you fat there are other foods that are a little bit more nuanced and difficult to find that are super Health Foods and'll radically transform you I can go on for hours about these myths but people come in with these myths as Notions as things they believe that they're like this is how it is right and when you tell them like actually that's not true a lot of them are like no way because maybe that's the first time they've heard about it so you tell people working out doesn't have to last forever if you do it intelligently which is what we specialize at RP about teaching people how to do and demonstrating digital products you can get into really really good shape with not so much time investment and it's not so difficult it's difficult in the moment as far as you got to try hard but you know an hour of trying hard a week is not the end of the world and then a nutritional front they come in and they think it takes all these crazy special things like people will watch me eat regular food and they'll be like you eat that I'm like yes like but I thought that you know but you need the super special food I like that's never been true but um people come in with their stack of ideas and these there's just dozens and dozens and myths on both ends we'll go through all of those myths but but my last question before we get into it is why does it matter to be in good shape and this is I'm asking you here to really draw on some of the case studies that you've probably been exposed to where people have turned their lives around what is the net benefit of someone who's listening right now who's maybe heard about Fitness stuff before and has heard from personal trainers and bodybuilders and whoever else but for whatever reason they just haven't been able to get up off the sofa and get into action it's difficult you know what is why should they why should they C I love that question the first thing I'll say is um is maybe not a surprise to many of the people that know me politically I'm like super pro freedom freedom of all kinds inclusion and that means to me also that if someone doesn't want to pursue Fitness as a human being you have the same love and respect at least for me that anyone who's fit would have and so as far as like it'll just make you a better person and you you got to get fit people will see uh people that are obese and they're like look lazy and uh how do they live with themselves I don't ever think things like that not because I'm a good person I'm not a good person at all but what Fitness won't give you is it won't elevate your status as a better person in some way however the other benefits of Fitness we could have a 10-hour podcast where I just go through them one one at a time and we would never get through all of them I'll give you a couple of samplings of kind of the big hitters one is Health straight up so if you reduce your body fat substantially and you increase your muscularity substantially and you adopt a lifestyle of moderate to moderately High physical activity quite regularly this is about as close in real life as we have so far to a

Panacea a cure all it isn't cure all but the degree of preventative uh you won't get really sick very soon effect that has is just radical I uh just coming off of them but if it's okay to say it was recently on like a boatload of steroids like the worst ones got blood work right in the middle of that because I was very lean and very physically active and muscular my blood Works Stellar just being leaner and more muscular and more active just cleans your blood work up like crazy and makes your longterm it increases your longevity considerably but it does something I think is pretty close to equally important it increases the kind of time you're having in your life while you're alive uh it makes it way better it reduces the morbidity and so because you can be around a long time living in an assisted care facility and like on machines to keep you that's you're alive sure but there something missing there but if you have more muscle less fat and more physical activity you ever see like an 80-year-old that's like cardio walking down the street and you're like my man it'll you that so that's a big deal so Health it'll give you usually people experience a perception of Wellness that's psychological they just feel better they feel cleaner they feel more energy the cognitive benefits of health and fitness are now being addressed seriously in the literature and they have been for a little while but it's kind of swelling uh is unequivocally true now to say that regularly engaging in Fitness makes you literally smarter just straight up and it conserves your brain's cognitive health for decades into the future as you do it consistently it's just win all the way across what is your background in terms of your academic qualifications and experiences that you've had that feed into everything that you know this is sounds so pretentious I can't believe I'm using this nomenclature but I did my undergraduate work at the University of Michigan where I met uh my fellow co-founder of RP Nick Shaw and um that was in kinesiology uh specifically a subset of something called movement science I then went on to do a master's in technically strength and conditioning but exercise science at appalachin State University then I went for one year to go work in New York City with Nick as a personal trainer at the end of that process I realized that for my own personal like Vibe I just didn't know enough and I wanted to know more and so I got accepted to a PhD program at East Tennessee State University under the great Mike Stone who is probably one of the most well-published sports scientists of all time maybe definitely the conversation for the greatest American Sports scientist of all time and I went to that PhD program and that was in sport physiology and the best way we had of summarizing what it is we were learning is the thing we're learning best here is how to take good athletes and make them better and so I did three years of that it sounds like a it's like a prison time I did three years in ETSU and uh that was the conclusion I was a terminal degree I got a PhD in sport physiology and then I spent oh gez 10 years in various uh professorships uh teaching and doing some research and all this other stuff I'm no longer a college professor mostly because like there's only so many things you can do at the same time well and it was kind of like this is this YouTube thing is getting kind of insane so time to Pivot to that but uh I'm still actively involved in research our company funds research I still look at manuscripts I still co-author so I'm still involved in that capacity as well so I want to start with a start if someone's listening to this right now and they have walked into your this is your uh this is your practice this is your hypertrophy practice let's say this table and they sit there and they say I would like to gain more lean muscle mass and I'd like to lose some weight um I live A busy life where do we start what step one and you know like I'm actually going to Hazard a guess at step one to see if I'm correct but for me step one is quite psychological because it's all well and good me having the tactics and strategies and the information but if I don't have the motivation none of it's going to matter anyway so is step one psychological in some way absolutely my God you should just be taking my job with this point no but okay I thought so I thought that was so what what would you do for me to get me in the right psychological mindset I would even take a step back before that okay the first thing we do is called the needs analysis and formal Sport Science a needs analysis is what do you want specifically do you want bigger arms how much muscle are you trying to gain it's a very different conversation of someone weighs 150 pounds and they're like I want to be 155 but leaner versus I weigh 150 pounds and I want to be 200 ripped different timelines different approaches different trade-offs okay give me the typical answer to that question most people just open-ended to be completely honest honest you're like I just want to get much leaner and some of them will say I also want to put on a lot of muscle the muscle thing is a lot of times with females they just want the leaner part but they understand in many cases that if they just jettison their muscle entirely they end up looking more sick than healthy uh but a lot of the males leaner is important but also getting super

jacked is important but how jacked and how lean that's the conversation is if they come in with totally open-ended concerns it's kind of like walking into a car dealership and being like I want a car like you going to have to be a little I we'll sell you whatever you're going to have to tell me a little bit more about what your use cases are about what your budget is so that's another big thing in a need analysis is how much time can you give to this because if someone says I want to eventually be a professional bodybuilder and I've got nothing but time in my week to do the thing think getting a very different plan than someone that's like I just want to be able to see my man down there again and like just not die soon and I have two hours a week to give you very different plan so I've got let's say I've got a couple of hours a week so you know two three hours a week that I could probably spare maybe four and I just want to get a bit leaner and I want to gain some muscle yeah I also ask what have you been doing so far tell me about your approach to Fitness and the answer could be I don't have one I've never tried to do anything once we get a lot of that information I don't want to say the plan writes itself but sort of almost now we really really really have all the details to fill in the blanks and then from there once you've done that sort of needs analysis and you've understood the investment that they're willing to make you understand what their goals are you understand their current approach to Fitness what becomes step two so if again I'm trying to embody the viewer here who's trying to change their life yeah yeah get going for step two often times uh just to keep it SCH we can I we definitely do nutrition uh if you'd like so please C me in for that but I'll just use um training as a quick example here uh a big one is do you go to a gym can you make it to a gym or are you going to be training at home because training at home is a bit of a different world you can get amazing results at home but we need to make sure you have the right equipment and it's super minimal two 20 lb dumbbells I like that you're looking over at the dumbbells like are those 20 kg dumbbells they're 20 pound dumbbells is that what I need at home for many people 20 like adult males white spry like yourself 20 pound dumbbells at home will give you phenomenal overall result yeah what is that nine kgs or something oh here we go your assistance are quite strong by the way thank do you fight crime in your spare time okay so these are 20 pound dumbbells You're just showing off now but but these are what I need at home to to do a workout uh yeah somewhere between 10 and 20 pounds 10 for small smaller lighter females 20 for larger more strong males somewhere between that two of those dumbbells at home and a little bit of floor space can be the beginning of an absolutely revolutionary workout program really yeah oh yeah how so give me the starting position and the end position that I could get to just with these dumbbells at home if you properly control your diet and you haven't really lifted weights before and you're let's say 30 40 50 years old in a 6month time span we can reliably get you to gain 5 to 10 pounds of muscle which if you go to the store what is that like five let's say the two to five kilos of muscle you ever buy two to five kilos of meat at the store that's a lot of meat that's going on your body and we can reliably get you to lose oh gee five to 7 and 1 12 kilos of fat in a six-month time frame just by being intelligent about your diet and doing two workouts per week at home with your dumbbells and the workouts each take roughly 20 minutes so that's 40 minutes a week oh yeah now that's if you're unaccustomed and unadjusted if you have already and that's why those intake questions are important because if you're like look I go to the gym six times a week I spend two hours at the gym like them dumbbells can keep you in pretty good shape but they're not going to elevate your shape very likely at very least it'll be highly inefficient and incredibly discomforting for what you'd have to do with such dumbbells so what is step three then so if we've got the equipment part figured out and I guess the complicated element of that is some people have anxiety as it relates to going to the gym I've got a lot of friends that because they're so inexperienced with weightlifting or the machines they feel embarrassed to go to the gym so that well at least that's what they tell me now I don't know whether they're Beering themselves but they tell me that they have gym anxiety you know you walk and I no actually I can relate you walk into a gym especially if I go to like a uh like a bodybuilding gym and I do look around I go okay everyone here knows what they're doing more than I do o that's already wrong but we'll get to that a bit and are they looking at me are they do they know that I I don't know how this machine works and if I don't know how a machine works and there's nothing you know No Label to tell me sometimes I just avoid the machine if I'm in in like a bodybuilding gym because I [___] hell I don't know how to do my wrist muscles yeah I just look like a doofus and everyone's making fun of me in their head what I think sometimes if I go to like a really Elite Gym so yeah so first of all I think people's gym anxiety is absolutely real thing I can speak to

that at length The Next Step would be to say Hey listen based on all the information we've collected on your limitations desires abilities we've cultivated a plan for you be diet plan and just just stick into the muscle growth stuff here's your plan for your training and we actually have an app for this sort of thing where we would say okay here's how you you type in all your stuff in the app the app will create a plan for you and it'll tell you here's what to do for warming up here's you know you pick a weight it tells you how to pick your weights and then it programs the rest of your two months of training for you you fill in the how do we how do I feel how am I recovering it'll take care of everything else and if you ever get confused you click on the exercise and it opens up a video with an audio demonstration of how to do it and of someone a professional bodybuilder doing the thing you go oh that's that's what bicep curls was okay got it so now you have all the answers and you don't have to have our app we think it's nice you don't have to have it just whatever kind of plan you have that's your little map of the Caribbean Sea with the AIS and the pirate ships and you know exactly where to go and it's you your app or your map of how to train your program and everyone else like in The Avengers movie it's just just floats away there's no one else there's not even any other machines it's you and the bicep curl machine and the hypertrophy app says first set is 12 reps at 50 pounds I take the select Dr stack I go to 50 and I'm nice and warmed up and I do 12 reps and that's as far as you have to think about it comparisons whatever everyone else thinks without a plan oh boy are you second guessing yourself with a plan you don't have to second guess anything most those people don't have a plan they're just in there on Vibes I feel like my delts are going to grow today if I do this like thanks thanks for that intellectual opinion you said there's two types of effective training one of them's H H can't say this but one of them is hypertrophy very good and the other one is periodization uh so periodization is the scientifically based organization of any kind of training that you want okay hypertrophy training is a type of training it's just muscle growth training it's like a fancy [___] science word for just getting more jacked putting on muscle that's the technical definition of hypertrophy and when you train for hypertrophy you can do it kind of like by feel and more or less at random and you'll get pretty good results in most cases but to get your best results you want that training to be periodized periodization is the scientific approach to how to organize your training to get sort of roughly three things some of these are a bit more for athletes and not regular people get the best results that you can Peak at an appropriate time abs for summer and minimize injury risk and taking all the science that we know that plan that you've made because you did in an evidence-based fashion that is now what is considered a periodized plan so that's how those two concepts relate to each other what do I need to know about hypertrophy in order to be able to achieve it is there anything really foundational because I think everyone wants a bit of muscle growth and I spend I think I spend too long in the gym I think I could be much more efficient um when I'm training what would you recommend that I start thinking about as F foundational principles when it comes to hypertrophy muscle growth one is specificity it's the most important principle in all of sport painting and exercise science is uh what am I here for what do I want because you can do a bunch of exercises in the gym and you're like that was great and someone's like are you getting the results you like you're like well I what I want is a bigger bicep like how many bicep exercises do you do like I think upright rows maybe so I want a bigger bicep bicep if we just focus on me give getting Steven B a bigger left bicep so specificity is telling yourself okay I want bigger biceps and whatever XYZ other muscles then we move in to the principle of overload which means you have to challenge yourself if most of your sets someone else watching them can't tell if you're warming up or doing what's called a working set like a real set you have a problem so towards the end of all of your sets either the weights are slowing down or even if it's the same speed to you they feel perceptively harder you know you do this this this and in a couple reps you're like that's what you want every real working set should be challenging you should be work approaching every real set with just a teeny teeny dose of trepidation like oh boy here we go I'm GNA have to try once you have that and a set is a a group of repetitions correct so if I do 10 repetitions that's one set one set yeah and so your sets have to be sufficiently heavy uh anything between between roughly five reps per set and 30 reps per set where the last few reps are getting close to you not being able to use good technique and lift the weights check plus so there's not a set a perfect amount of repetitions to do there is it's a trade secret and I'd have to say it off camera to you like ND assign okay we're off camera all right great so it's 17 um there is so there's just tons of tons of contextual Nuance kind of stuff some people some of their muscles will seem respond better to sets a five to 10 other folks

even the same person could have muscles in their body that really respond better to sets of 20 to 30 and everything in between but generally you get in in the exercise science data you'll have a group of people training for sets of roughly five reps and another group training for sets of roughly 30 reps and their change in muscle growth over 8 12 16 weeks is statistically undifferentiated that's so crazy using the same weight I'm guessing different weight a weight that is challenging for five reps is much heavier than a weight that is challenging for 30 okay so I do Wonder this all the time when I go to the gym I wonder if I should be doing I don't know 30 reps of 10 kg on my bicep or I should be doing 10 reps of 20 kg they're both right answers no wrong answers there and they both have the same chance of growing my muscles as long as the strain that I experience subjectively is difficult at the end of those set correct okay interesting which is really good news because that's like another thing you don't have to worry about which means at home I can get any range of Weights versus having to get really really big ones to gr as long as they're not so tiny that you're on rep number 45 and you're like I could just do this for forever or they're not so enormous that you're like I can't really even do two reps of this anything between roughly five and roughly 30 reps challenging is really really good how many sets and how often do I have to visit the gym to get this bicep to grow that answer depends on how much you've been doing before okay but if you're new to the gym two sessions a week with two to three sets per session for your biceps is something that's going to cause months and months and months of consistent progress can you do more yes do you have to do as a beginner no eventually as a more advanced person do you need to do more sets and perhaps more sessions to get consistently better results yes but for beginners who haven't been in the gym very much or at all the minimal effective dose is profoundly small which is why I can say things like if you work out for 20 minutes twice a week you're going to get great gains what if I go to the gym and I do six sets on my biceps and I just go to the gym once a week does the distance between the workouts in a muscle group have an impact yes once a week training gives you good results but twice a week training for the same muscle gives you notably better results training three times a week versus twice tce training four times a week versus three times training five times a week versus four times is uh an an exponentially de-escalating amount of impressive differences so one time a week Works it'll get you results two times a week gets you like one and a half times the results like way better better three times a week is like another little bit more results still notable four times a week is like you got to be training for a while to notice the difference between three and four four and five is contextual and nuanced and I can't actually tell you that categorically 5 days a week is better than four there are some things I would have to know about your plan and everything else to make that conclusion so really I want to be aiming at twice a week per muscle group twice is our minimum two to four times a week is what I say is kind of the best overall recommendation per muscle group and if you train all of your muscles together at the same time a whole body workout which most people in the realm of just I'm busy and I can't train a lot it would be all of the major muscles of your body in the same session twice or three times or four times a week and that is an awesome beginner fitness plan what's going on in my muscles that's encouraging them and making them grow and when are they growing is it when I go to bed at night is it when I do they grow the minute that I curl the the dumbbell what's actually going on because sometimes understanding what's actually going on inside helps me to think through and change my behavior yeah so uh the primary stimulus for muscle growth is there are molecular machines in your muscles in your muscle cells and they are designed to detect the presence of tension and when your muscles generate tension the molecular detector machines go o we got tension here and they start uh saying to other parts of the cells like hey uh let's get this muscle growth thing started started not happening started it's a stimulus of muscle growth there are a couple of other mechanisms which might SL probably have an effect and that a couple of them are metabolite sequestration which is a very fancy way of saying the burn you know at the end of a set you're like ah the metabolites the um byproducts of training if they accumulate to high levels it's been shown in tons of animal studies and a few human studies that like mechanistically they might also tell the molecular Machinery that grows muscle for you again later to uh hey get the muscle growth process another one is the pump so you know you do a couple sets of biceps you're oh my God what's going on here baby flash it at some girl she runs away as usual and the actual cell swelling itself might play a causal mechanistic role in generating more muscle growth but but we know it's probably at least at Le least 80% of the muscle growth anyone will see is because of

those receptors for tension muscle growth as soon as you leave the gym is a negative because the gym is catabolic it's a breaks down your muscle actually training breaks down more muscle than it builds however as you go home and you start eating food protein carbs fats and you have several meals per day and you're resting when the food's coming in several hours after training begins if you measure muscle growth consistently which is really difficult to do they don't do it super often you have to keep people in a laboratory you have to do radioactive tracers and measure all this weird stuff every couple of hours they measure the amount of muscle growth that's going on in the biceps goes up and up and up and up and it usually Peaks about half a day to a day and a half after you lift depend depending on how hard you went if it's a pretty easy workout it Peaks a little sooner and Dives and drops off about a day or two later if you train really crazy hard it'll Peak like a day day and a half later and then half a week later it'll drop off back to Baseline levels but it's this really smooth curve and you're growing muscle at every single point under that curve So when you say is it while I'm sleeping is it while I'm eating is it while I'm resting the answers all of those except it's not at the gym you don't grow muscle at the gym you give yourself a signal to grow muscle at the gym and then what you do outside of the gym matters so some people train really hard they don't eat right they don't need enough protein their sleep is total insert bad word here and their stress levels are just totally psychotic they train hard and then week after week after week they're like not seeing any results well the results are actually created when you're resting when you're sleeping when you're eating nutritious food they're stimulated in the workout but that's just phase one phase two the actual growth occurs outside the gym and it occurs not in any any specific time Point like a Magic Window of two hours after the gym like that's when all the growth occurs that's actually when it just starts to go up it's four days afterwards so if you train twice a week you train on Monday you're going a lot of muscle on Monday night Tuesday and Wednesday back uh towards the end of Wednesday you're just not really growing much more muscle you go back to the gym Thursday you hit it hard again you hit that curve up by Sunday you're totally relaxed during Sunday you're not growing any muscle your body's really recovering a lot of that fatigue and then by Monday you're fresh as a pickle and you're ready to go at it again how long will it take me to lose the muscles that I've gained if I don't go back to the gym so again focusing on this bicep I train it I do two times a week I get it nice and big how long before it vanishes great question two-part answer part one is within about two weeks of not training it the first reduction in muscle that is detected by Modern Machinery occurs so if you don't lift for 2 weeks and we put you in an MRI scanner or a dexta scanner let's say a week and a half you don't lift I can't tell you're not really losing any muscle yet you're just going insane and so me personally I'm like addicted to lifting so if I don't lift for a week I'm like oh my God oh my God all my muscle's gone there is some kind of intuitive truth to that because when you don't stress your muscles they when you do stress your muscles they get a little bit inflamed and they bulge up a little bit B so when you're not training for half a week to a week your muscles look smaller like they've lost weight but it's really just all water that they lost you do one gym session thinking like oh my God my biceps are gone a week and a half later you do one session at the end of that you flex and you're like oh my God I'm the biggest I've ever been I was just delusional that whole time CU that stuff comes back super quick after about two weeks of not lifting you start to lose muscle but it happens really really slowly and takes weeks and weeks and weeks and weeks after for several months of not lifting you're going to look considerably smaller in your biceps but probably not as small as when you started lifting because your muscles have a certain memory if we can call it that is that true that thing oh yeah and so a lot of times when you gain an initial amount of muscle especially if you've been at it for years it just never goes back to the same size as when you started it's just always going to be bigger until you reach your 80s or something like that that being said yes you will notice reductions size so two weeks is the direct answer there and it's going to take weeks and weeks and months and months to recede however here's part two and this is awesome news because of that muscle memory situation however long it took you to gain the muscles initially it's going to take you an order of magnitude a factor of 10ish or so less time to get it back if you've been more jacked before if you've had bigger muscles they come back to their old size if it took if you you lifted for eight months you got a bigger bicep and you stopped Lifting for three months and it looks about the same as when you started if you're really careful like okay it's a little bit bigger but really it's just back to square one most people think oh my God another eight months just to get back to where I started like forget the gym the truth is after roughly about a month

maybe as little as 3 weeks you're going to have the same size biceps that you did in your Peak because the degree to which your tissue grows if it's been a certain size before especially if it was notably bigger than normal and you held that around for a few months and a few years it comes back in a way that is so fast If you experience If you experience it yourself it's it's like you don't believe that it's happening to you you they been able to like scientifically test this oh yeah all the time yeah retraining studies detraining retraining oh yeah they've they've done studies where they purposefully like lift for a while and they stop Lifting for a long time and they see how long it takes to get back and um there's one study I'm familiar with offand that there's a group of people that trained consistently for multiple weeks and there's another group of people that trained consistently for a few weeks and then took two weeks completely off in the middle and then just started retraining again for a few weeks later both groups had identically sized differences in muscle at the end of the study and so we were like okay so so that group that trained consistently never took two weeks off could we say that they purposefully like dunked two weeks of their time away for nothing uhhuh yeah your body goes right back into regaining old lost muscle so rapidly that this is such great news because look let's say you lifted consistently most of the Year holiday season comes up Winter holidays you're not going to the gym as much maybe not at all three weeks later of no gym you look at yourself you look a little small or kind of deflated and you're like oh my God I'm going to have to restart all this from scrap nope two weeks later you're in the best shape of your life again if you left the gym for 6 months one or two months later you're in the best shape of your life again that's how rapidly it comes back so it's really good news for anyone who hasn't been in the gym and is feeling guilty about it go back get consistent again you're just going to Skyrocket that is very exciting because yeah we always have sometimes it's the trough the the couple of weeks off that makes us demotivated cuz that's crossed my mind before Oh my God that took me three months to get there and it's going to take me another 3 months to get back but what about so if I'm training that bicep how have I got to think about stretching and warming up before I start before I get going with my training there are many ways to do it but uh there's some research on this recently actually you don't need much one of the simplest ways to warm up that we recommended RP and our app has it in the in the instructions you want let's say you have your final weight already picked out like last week did 20 lb dumbbells for sets of 15 this week it's sets of 16 with the 20 lb dumbbells what you want to do is you want to do very lightweight maybe the 5B dumbbells for a set of 12 just to get everything moving and grooving good technique same technique you're going to use 30 seconds of rest a minute of rest you pick up the 10 or 15 PB dumbbells you do a set of eight reps there a little bit more challenging your feel your groove a little bit but your body is already more warm your nervous system is more active your muscles are more pliable you rest a minute after that and then you'll pick up the weight you're actually using the 20 Pounders and you'll do a set of two to four reps with them just to get the feel of that heavy weight that you're going to be doing to climatize not just your muscles and your nervous system but your psychology to like okay this is this is the business weight that I'm going to be using so 12 84 rest another 30 seconds first working set of whatever 6 reps you're up when you have multiple exercises for the same muscle group you just need to do one set of like four to eight reps in that middle weight range between zero and whatever you're going to do just to get the feel of the exercise because you're already generally warm in that area one little warmup set rest uh you know 30 seconds to a minute and then hit your first set if you're switching which muscles you're using like you were training chest but then in the same session you started training back that first back exercise 1284 the weight goes up up up the Reps go down down down just a little bit of time between and then you hit your first work set you're good to go you don't have to do cardio before you don't have to get on the treadmill you can if you like it you don't have to do some kind of cardio warm-up you don't have to do any kind of stretching or anything like that you don't have to do any kind of weird bosu ball band around your neck crazy potentiation exercises just that little ramp up is basically 98% of all cases exactly and only what you need to do what is a warm-up what is going on physiologically inside my muscle cuz we we all just warm up and I don't think anybody actually knows what what's going on yeah so your muscle tissues um they have uh they have physical qualities that can be measured almost in like a fluid dynamics terms like viscosity and hysteresis and all that stuff and so when you're very cold a lot of times the uh there's kind of a Frailty implied there as you're warming up you're sending blood to around the muscle the muscle itself is literally becoming warmer and a lot of those kind of tight structures that are uh they

proteins that are made of kind of a stretchy material they loosen up a little bit and that allows you to go through that full range of motion and training and not actually get hurt and that's from the muscle perspective you also get some kind of chemical stuff that happens and certain structures fill up with chemicals certain structures chemicals go down and that gets you ready to perform super hard work but that's part of the story the other part is the nervous system because your nervous system is also getting warmed up and in technical terms it's called potentiation when you just show up to the gym and you let's say we said look okay we re-engineered your tendons when you were asleep you're not going to get hurt it's impossible for you to get hurt like a car would have to hit you for you to rip your bicep off you can just go and just hit the curls right away you wouldn't get hurt but it would feel really strange and you wouldn't get four or five reps close to where you're supposed to be from last week because your nervous system was like what hell is going on I'm supposed to be doing something so you need warm up the nervous system a part of that is literally like the actual nervous system itself down to the C Level is Flushing all kinds of metabolites through the connections are getting stronger you're uh sort of doing a little bit of kind of mini rewiring of primary motor cortex to say go oh we're doing curls this is how you execute this pattern another part is technical like oh this is the technique I'm going to do because if you just get in the muscle and just do stuff like imagine if I told you like hey here's a ball just like go go shoot some hoops just hit that you know three-pointer shot you're like I need a couple shots to remind my body of what it's like to shoot the basketball same idea for lifting you to remind your body of what a curl motion is and if you remind it a couple sets in a row by the time you hit that real working set that fourth set your body's like I know exactly what I'm going to do which parts of the muscle I'm going to activate to contract which other parts of other muscles am going to activate to relax and co-contract to make this whole thing happen what are the the other sort of common mistakes people make when they they go to the gym or they start training or they start exercising so there I've I've kind of ticked off not stretching and taking on a heavy load too quickly um but also ramping up volumes and loads too fast so that sort of over strained before my body is ready for it are there any really other sort of common obvious mistakes people make that inhibit their progress one of them is a failure to pay attention to good technique okay there are sort of some Universal principles of what is good technique in the gym for muscle growth one of them is are you moving in a way that properly activates stimulates that muscle to actually get it to grow because if you do a curl that arcs up it does a lot of bicep if you do a curl that arcs back this way because the bicep is being pulled one way and pulled the other way at the shoulder and the elbow it ends up doing more of um stabilizing contraction than actually being the prime mover for the movement so when you see people curling at the gym and they're just kind of doing this you're like yes that is training your biceps but if you just moved a little bit differently it would be so so much better here's another example squatting right for your legs if you squat really far back and not so far down like you're your glutes get hit okay your lower back and upper and midback is going to get hit a lot but because there's not a huge change in your knee angle you're not getting a ton of quad stimulus if you stay more upright and your heels and toes are on the ground and you allow your knees to go Way Forward beyond your toes as you stay upright and sink down really low so that your knee goes into one of these oh my God it's all quads all day long so you want technique that is targeting the muscle it's very similar rep to rep to rep and it puts the muscle consistently through a range of motion that is in that deep painful uh length and stretch position if you just have all those three everything else we can say about your Technique is just nuances and finer points those are really the big ones we talked about nutrition earlier as well so if I want to make my bicep grow and also drop off the weight around the bicep so you can see see it even more what should I be putting into my mouth the number one requisite for muscle growth is protein foods with lots of protein in them ideally should be consumed three to five times per day at roughly equidistant intervals breakfast lunch dinner totally fine even better breakfast lunch dinner evening snack the average person needs a little bit less than let's say a gram per pound of body weight per day of protein actually considerably less that's kind of the top limit and a cool aspirational thing to shoot for so if you weigh let's say 200 lb you should be consuming something like 150 to 200 grams of protein per day and 150 for almost everyone's totally enough but if you're real serious and hardcore and just want that insurance policy 200 grams of protein per day so then if you're eating four times a day that's oh yeah 30 40 let's say 40 to 50 grams of protein per meal can I eat too much protein and and then it becomes fat or something uh that's uh so protein by itself no if your

protein is so high that your carbs and fats are the same and you jack up your protein super high but your carbs and fats stay where they are your calories become excessive that will cause flog over time but if you're doing a diet where you take a ton of protein but you dropped your carbs and fats and your calories are at maintenance levels you're not going to gain any fat it's not bad for your kidneys it's not bad for any other part of your body excessive protein as a health malady has been a myth the entire time and that's one of those um notions that people carry with them that too much protein is bad right like yes if you've had kidney surgery absolutely short of that you're probably good to go you'll fart a lot and people will hate you but you know you mentioned three to five meals a day a lot of people are now in this Camp of of fasting an intermittent fasting and not eating often is it possible to fast but also to gain muscle mass in the way that you've described yeah totally it just won't happen at as an impressive rate so you have to make a trade-off for yourself if you want you know most jacked Steven that you can be three to five meals a day consistently spread in almost to an individual competitive bodybuilders eat that frequently and eat high protein how often did you eat uh I eat five five times a day four or five times a day usually and do you eat before or after you train both okay so before you train and after you train do you different things a times I'll train early in the morning and so I won't train at I won't eat at all I'll wake up and I'll have like a protein and carb mix shake with my training totally optional super extra credit may not do anything at all if you look at the literature but I find it a little bit compelling to do a little bit of that and then afterwards I have my first post-workout meal second meal third meal fourth meal bedtime wake up do it again what you take to get you going do you do pre-workout no why no uh I don't do any stimulants of any kind why uh I'm just kind of coked up all the time naturally so like if you give me stimulants it's just going to go into the not so pleasant side of side effects like I'm just going to be like this and way too amped up super high anxiety and my thoughts get to be like I have less fluidity of thinking and stuff so I just it just a lot of me I guess and so when I wake up in the morning I don't need anything to get me going I just go and a couple warm-up sets later I have all the energy I need that's not everyone and so some green tea some black coffee or some pre-workout 30 minutes before the the gym is great advice for a ton of people I feel like pre-workout can't be healthy if you're doing it five six seven times a week because some of that stuff is so unbelievably strong like I've had it before I've got literally like heart palpitations when I've had a pre-workout and you know you talk about anxiety that anxious feeling it can't be it can't be help healthy for people to be doing that frequently it seems to be quite fine it seems to be quite fine now at the extremes and in for some individuals it's not ideal but um the upper limit dose of caffeine in milligrams per day at which we can confidently say most people will experience the beginnings of Health maladies is a thousand milligrams and a cup of coffee has depending on which cup 50 to 100 now some pre-workouts have 250 gr milligrams of caffeine some have 500 uh last I checked Ronnie Coleman's pre-workout has 550 migs of caffeine per scoop or per serving and so that's kind of a lot uh I if I took 550 migs of caffeine you don't take me to the gym just take me right to the hospital put me in the psychiatric ward 36 hours later I'll be okay but for some people to get so accustomed to high doses of caffeine that is supposed not unhealthy for them to consume and also uh they feel quite fine so I would say start with as little as you need to get you going and if you need to tight trate and work up from there that's a good thing the other thing I would say is I would have a compelling case for pre-workout or stimulant if I ask you like hey how much energy do you typically have at the gym you're like well that's super great and they're like should I take pre-workout I'd be like no there's no compelling case for that at all if you're like look I wake up in the morning some days I just don't get a ton of sleep and I need something to get me going not every day but sometimes I'll be like hey look consider green tea black coffee some diet soda or all the way up to pre-workout if you need it but some people take it kind of a like um a like a religious thing as a habit uh as a ritual and it's like dude you're training your forms and biceps for 20 minutes total at 900 p.m. you do not need three scoops of pre-workout for that I don't even know where it's going at that point so some people get a little crazy with the pre-workouts at the end of the world it's at at best needless what's your stance on the whole idea of calories in calories out a lot of people just focus on that as their their sort of their script to lose body weight lose body fat and gain muscle is is that a useful frame to to use and why do so many people fail at it if it is a useful frame most people fail at it because they don't consider both the calories in and calories outside of the equation and a lot of people fail because they're very bad at estimating food amounts and calories they someone will say like a tablespoon of peanut butter Stephen if you ever

actually seen a tablespoon measuring cup it does not look like Mom's tablespoon where she takes the peanut butter and goes that's like four tablespoons and so like but I'm eating the calories blah blah blah every time you take people into what's called a metabolic Ward which is a study center where you're not allowed to have visitors that bring you food the workers only give you the food that you need and all of your exercise and your output is controlled and monitored and so is your intake no one has ever violated laws of thermodynamic we give you a certain number of calories and we expect you to lose a certain number of weight there's a variance about that but it you're going to lose the weight that roughly we predict if we account for all variables you're going to lose almost exactly the weight that we predict so calories in calories out is incontrovertible in among 90s something per 98% of people who do research in the field and are scientifically literate and educated calories in calories out is not controversial it never has been there are some people who say well calorie counting didn't work for me that's probably because you did it wrong or you weren't even concerned about how much protein you're taking in or how many carbs or how many fats there are other details that matter like if you say I need a V8 engine in a car that's all that matters like okay well there's no steering wheel there's no pedals cool well okay I need those things too so calories and calories out is the very core because without an engine you're not going anywhere but what types of foods you're eating matters a little bit are you getting enough protein carbs fats that matters a bit too so people like to just bash calorie balance and calories in calories out is well it's it's totally myth it doesn't work no no it works great it's just not always enough to get you in the best shape you can but if you do it right as far as net balance weight gain or weight loss calories in calories out is actually the only thing that matters tissue wise is that gain mostly muscle or mostly fat is the loss mostly muscle or mostly fat that has not so much to do with calories it has much more to do with proteins carbs fats the quality of food you're eating nutrient timing and all the rest of it so calories and calories out is amazing super explanatory critical but it's just not the whole picture and that's really it I guess because so many people say they've heard about calories and calories out but they fail at maintaining it now that's really about motivation and the psychology of doing such a thing um some people have said to me that our bodies want to defend our weight so if we start eating less we'll become a little bit more hungry if we go for a run after the run or after physical exertion our body will try and make up for it because it's programmed to try and defend its weight because its weight correlates to our ability to survive um why do people fail at it one of the reasons you said is because you know that they're not actually measuring the calories correctly but the psychological reasons that it isn't hasn't worked for some people can you think of many because when I when people talk about calories in calories out if you look at the comment sections on those videos people say I've tried this and it didn't work okay so first of all I typically don't look at comment sections of videos because comment section is not representative of the population it's not represent representative of the people that watch your videos it's not representative of the hardcore demographic that watches your videos so just as a statistical artifact every single Claim by people against calorie balance in that comment section could be true for them but they represent 1% of the population so 99% of people at works just fine for 1% they get into some kind of trouble usually that trouble is they didn't count calories properly they didn't account for macronutrient profile proteins carbs fats they didn't account for nutrient timing or the kinds of food that they're they're doing and so on and so forth and another one is like you said sustainability how long do I have to count calories for in my life for me to get the body that I want and keep it is sure [___] not going to be forever so what I'll do is I'll count calories for a few months I'll lose a lot of weight then I'll go back to eating on Vibes and the weight comes right back absolutely so better than just counting calories what we want to do is instill people with good eating habits if you learn how to construct meals made of lean proteins veggies fruits whole grains healthy fats you know roughly how to see how much food you need and how much food looks at least like it's what you eat per day if you're checking your body weight relatively often and when your body weight starts to get a little higher you kind of clean up your diet a little bit uh and when your body weight's nice and low you couple cheat meals couple kebabs you know burgers and stuff that's all good if you do that and you have those healthy habits whatever weight you lost on calorie restriction you can maintain with very very little work not counting a damn thing just on good habits but but if you counted calories you do some weird diet where you only eat like too with orange slices and protein shakes or something yeah the calorie counting will get you wherever you need to go but then afterwards like the diet's over and you're like

now what do I do like uh good luck going out in the world and feating the same diet that got you fat in the first place that's the big kicker people might say it takes too much time to count calories it leads to a unhealthy relationship with food I think there's a big movement at the moment to trying to get calories off menus because it's said to increase the amount of people that have eating disorders and things like that is that a a conversation worth entertaining in this in this regard sure sure very few people will develop Eating Disorders based on increases in information they are presented I would actually call that eating order instead of eating disorder most people who get Eating Disorders are highly at risk genetically and with a few other social circumstances Eating Disorders are uh for example the most uh deleterious Eating Disorders anorexia nervosa seen not exclusively but almost exclusively in females of reproductive age they ain't calories on a menu doing that that's something you bring into the table usually because you have the genetic proclivity for it and additionally because you've been in a social and cultural circumstance where not only were you the wrong person to get ridiculed for your weight but also a lot of people ridiculed you for your weight and then you go all careening off on this path where no one can even tell you're super skinny anymore because you don't believe it so the idea that uh you're going to see much higher prevalence globally in Eating Disorders from putting menu calorie labels on things is true by this much at the margins and it's just largely not the case adjacent to that is this idea of muscle dysmorphia which affects a lot of people but specifically men roughly 87% of men that are between 15 to 32 years old that experience muscle dysmorphia which is what so muscle dysmorphia generally is for whatever level of jacked that you are you think you are considerably less jacked both in reference to yourself and your own desires and in reference to an ethereal make belief comparator population in your head so if you were to ask like hey Mike do you feel jacked and I'm like nope you're like oo not good not a good sign clearly he's jacked and then you can ask me Mike compared to other 40-year-old ashkanazi Jewish men how Jacked are you and if I'm like I'm probably like bottom 50% for sure probably bottom 25 to' be like okay he's mentally ill take him away that is high level muscle dysmorphia a disassociation from any objective reality about how much muscle you actually have do people over estimate or underestimate their appearance as it relates to their muscles uh dysmorphia is almost always cataloged as an underestimation but but from your experience working with people do people think they're more jacked than they actually are it really depends on the individual most people that are in gym culture that are very invested if you catch them on their not so great days they think they're substantially less jacked than they really are and if you tease it apart via conversation they'll end up being like yeah no no I know I'm jacked but I'm just saying like and then it's aspirational like for my goals I'm not as jacked as I would like to be it's interesting because we typically think of women I think stereotypically in society as caring more about their body image but I've I've read a lot of stats lately that suggest men care equally about their body image but just in slightly different ways and the about the correlation between their perception of their body image and their own mental health and the link between the two sure sure do you see a lot of that do you see this link between Health in male body image yes huge proportion of psychological proclivities are genetic the others are very individually acquired they change through time it's not as easy as saying upbringing or family environment so the one consistent thing about how you relate to the world in your own thoughts is genetics and a lot of the traits tend to aggregate together so it is true to say on a spectrum very nuanced that some people aggregate a lot of negative psychological traits and some people aggregate a lot of positives and there absolutely people everyone's a mixed bag somewhere in between but there's a little bit of this kind of I don't want to use a a term for another mental a bipolarity to the distribution right and so a lot of people that are generally neurotic they feel consistently uh unsafe and unsure of themselves are going to be also the type of people that when they get more jacked through lifting they're still not going to believe that they're as jacked and accomplished and awesome and alpha male as they really are because they're always like you know to use the old Jewish joke stereotype like I'm never going to be big and it's like you're already big like oh I don't know it could get it could get worse tomorrow and a lot of people just bring that to the table and so when you get neurotic people jacked they don't think they're that jacked they're always like oh my God it's always going to end but if you take not neurotic people and make them jacked one week of lifting into those people and they're like dude I'm like do you think I should turn pro in bodybuilding like get out of here you're just overon so it really depends on who's doing the thing now cultural stuff social who's in your circle I'll give you a good example I have a lot of

my closest friends have no relation to Fitness whatsoever a bunch of them are actually neuroscientists just randomly people I knew in college that ended up being my friends for life and so when they assess their muscularity relative to myself and my bodybuilder friends they're like I'm in terrible shape and I'm not remotely jacked and they have such a weird comparator population that I always remind them like dude dude not everyone looks like this they go to the store they go to school they go to the bank and they're like oh crap you're right I'm actually the most jacked person at the bank it's just not like Gold's Gym where everyone's enormous so if you happen to be in an environment let's say you're a university student and you go to the University gym and there's lots of jacked people there and you're there all the time trying to do your best you may if you're neurotic to begin with more neurotic start to develop a sense that you're just not nearly as jacked as you should be or could be or whatever but if you like hang out at an old people home with your grandma and grandpa all the time you're going to feel like Superman all the time because holy [___] you're like you can do real things and move furniture around and and so then go back to that point about weight loss if I'm trying to lose weight what are the biggest biggest myths around weight loss that hold people back and inhibit them one is you have to be perfect if I'm on my diet I'm good if I'm off my diet not only am I bad but as soon as I'm off my diet I have sinned and there is no Solace for me um I a lot of people have that falling off the bandwagon thing where eat clean food whatever that means diet food for weeks and weeks and weeks they have one Kebab they have one cheeseburger and they're like do it that's it man I'm done dieting I'm not a good person anymore it's like that whole dichotomizing and kind of a religious approach that hurts a lot of people because in reality if you just Eat A Cheeseburger your body's like oh sweet like I got a little bit more carbohydrates stored in the muscle I recovered a little bit more my diet fatigue is actually a little lower because you fed me some food tomorrow I'm back on the diet I'm making even better gains than if I didn't have that cheeseburger I was so exhausted and so a lot of people have that approach completely backwards and they're like I'm either good or I'm bad and and that's really tough another one is people think that the approach to lose weight is the same as the approach to maintain it um this is really really really nasty because so my wife is a uh board-certified uh Family Med Sports Med doctor and she does a lot of work international Olympic teams all that stuff and she is looking at these formal recommendations from the medical literature and it's like here's the kind of diet you need to get to lose weight and then she was like she followed up with some of the professionals and she's like and so what about maintenance and they're like uh yep what do you mean yep what are you talking about that's not the conversation so people think okay I'm going to clean up my diet no more ice cream no more no more crisps no more Cheetos I'm gonna eat super healthy and then when I get to the weight that I want I eat continuously super Health never have ice cream again what kind of bizarre world is it and so they'll flop back to the other one well they'll try for a few months after they've gotten to the weight they like to just eat completely super healthy clean everything like that they lose a little bit more weight they're exhausted they're tired they're food focus is driving them nuts they'll eat some ice cream and they'll go I'm a sinner and then ice cream ice cream cheeseburgers cheeseburgers up they go and then they regain all the weight so a huge myth is the fact that yeah when you're you're losing weight you got to pay a little bit more attention to what you eat but once you've gotten to that weight you both need some time roughly every 3 months that you diet hard to lose weight you should be taking about at least two months at maintenance just maintaining it so if you weigh 100 kilos iron down to 90 after 3 months for about two or 3 months just stay at 90 eat mostly the healthy stuff that you were but throw a little junk in there maintenance again is much easier than losing when physiologically and psychologically your diet fatigue comes down after those two or three months you're able if you'd like to start dieting really hard again to get to that next goal that you have or you just live in balance for the rest but if we tell you like here's your diet to make you lean and healthy and you're like okay how long do I have to do this and the doctor's like forever what what am I supposed to do I'm never I'm never allowed to have teramis Su after dinner ever again I'm like well probably not to that's terrible advice and not only do medical people too often say that most people have that in their heads and it's it's a very very untenable situation one of the big sort of narratives that I was exposed to for most of my life about weight loss is that 80% of its diet what do you think about those ratios how much of weight loss is determined by diet versus exercise yeah diet has a bigger effect than exercise as a heuristic I'm very comfortable with 80/20 there are a couple reasons for that one is there's a constrained energy hypothesis it's also called ponor Paradox

based on Herman Ponder's work and physical anthropology and so basically they realize that the amount of physical activity that humans can do has a range but if you try to get people to like double their physical activity you say I'm not going to change my diet I'm gonna work out twice as much as the next guy your body becomes so fatigued so rapidly and your metabolism adjusts itself your physical activity that's not planned exercise like how much do you get up when someone calls you are you still on the couch talking to them or how much do you get up and walk around your kitchen a bunch your body makes all these adjustments so if you try to really outwork a bad diet it doesn't work and usually you just come back to the same physical activity because you're too exhausted to continue and then you failed whereas with diet you can make some dietary changes principle based like stop eating junk food every day and just eat two pieces of junk food on Friday and two pieces of junk food on Saturday just that alone is sustainable your body as long as these are filling foods a lot of veggies fruits whole grains lean meats you're not hungry you're just like damn it I want a bag of chips that's not a reason that is mostly psychological it's not physiological and thus dieting is just able to take bigger chunks out of your calorie balance equation without completely destroying it that has limits as well you can't do it forever so you have to take it in chunks another thing is this in order to burn a lot of calories to lose a lot of weight you got to do some serious work the average person will burn something like 100 to 150 calories per mile run oh my God you start thinking about it like a doughnut has 300 calories how fast Stephen can you eat a doughnut if I time you 5 seconds five no problem boom you going to run three miles after each donut it's insane so taking your diet cleaning it up reducing the junk reducing the calories is not that hard but if you try to fight off the nasty extra junk food calories you're taking in with exercise it's kind of like a three to one fight you eat two donuts at your work function after work you got six miles to run that day nobody doing that and that's why diet is such a huge factor it's so easy to do quote unquote damage with it and it's much easier to take control of it versus exercise the boundary layers are just smaller and what you would have to do to fight the bad diet is just grotesquely large and outside of those boundary layers I think this a lot because I think people typically assume that the way to lose weight is to go do a run yeah that's typically you know you'll see people in the gym and if you ask someone why they're on the running machine they'll probably say I'm trying to lose some weight yeah it helps a little bit but if you run and you burn 200 calories extra per day 3 days per week then is 600 extra calories you're burning through the week that's good stuff you can lose some decent weight like that are you just going to be more hungry though afterwards uh typically exercise does not dependably increase your hunger in most people so uh depending on the context in the individual it's not a dependable thing to say that doing more exercise necessarily makes you more hungry which is kind of cool because usually you're not really any more hungry and if you stick consistently exercise but you control your diet you're good to go however is there a psychological component to that where because done the run I now feel like I deserve it oh yeah that's huge and some people do have a hunger response but what you put in your body after that could be really healthy stuff that doesn't have a ton of calories is really filling or it could be like we're done running pizza and beer and then that's really bad news but real quick so let's say you're burning 600 calories extra per week by running two miles at a time or whatever or whatever you run an extra four miles per week right 600 calories per week okay what is that well to burn a pound of body fat you need need to get 3500 calories per week out of your diet or do 3500 extra calories of activity per week 600s a drop and the bucket to that you'll never notice I mean yeah after a year you'll lose like two or three pounds or five pounds or whatever nobody thinks in terms like that but if they were to simply alter their diet and keep training to keep the calorie burn at a moderate to high level but take food out of their diet especially through junk food the total calorie deficit they can make for themselves is now in the hundreds of calories per day now you're losing a pound of fat every week now you're having big results is there a preference between doing cardio or strength as it relates to long-term weight loss because I'm thinking if I've got more muscles then surely my body's going to need more it's going to burn more calories just by a small margin almost unnoticeable so your your body versus my body you're not burning more calories I how much do you weigh um 90 I don't even know it in pounds it's about 92 kilg okay solid so I currently weigh which about 98 kilogram 202 pounds so 202 so I weigh like 216 to 220 right now so we weigh not too far off you not too far off so even though I have considerably more muscle in your opinion my in my very biased opinion that um no dismorphia here uh I would be burning a teen bit more fat or more calories per day because

of my higher muscle mass but it's mostly my absolutely higher weight so for example the people in the world that burn the most calories and need the most calories to sustain their body weight are the fattest people in the world that like lady that weighs 800 900,000 pounds like just to keep her the same size it's 15,000 calories a day W and if it was all muscle and no fat somehow she was a th000 pounds of muscle which would be sweet to look at she would be burning like maybe 6 16,000 calories per day instead of 15 and probably even that's an exaggeration muscle mass doesn't help you burn tons of calories that's not what it's there for it is incredibly good for your health it is incredibly good for how you look those things by itself make muscle mass an awesome thing to do but it is neither true to say that cardio reliably over the long term Burns lots of weight off and it is not true to say that gaining lots of muscle Burns lots of weight off what is really really critical is do you have a well-controlled nutritious diet and do you have an average moderate to high level of daily physical activity dancing and swimming and running and having fun and chasing your kids if you're on the higher end of activity not psychotically high to where you get super tired just not being a total SL like slouch and making sure you're aware of your body when your diet that's what really pays these massive dividends in long-term weight control it's not like if I put on a ton of muscle that's great for everything else it makes you super healthy it makes you look really awesome it gives you the ability to like I don't know like do real world stuff uh defend yourself things like that that's what muscle is there for it's not the greatest like calorie sink in the world I wish it was I'd beat cheeseburger right now so in terms of supplements are there any supplements you suggest that I take if my goal is to lose weight but also to gain muscle mass for the average person no there's no supplements I mean creatine creatine will not help with weight loss and for most people it'll temporarily gain you about two kilos of body weight because it attracts body water into the muscle it's a cool look because it makes I'm on Creatine right now can you tell mhm yeah really all right so creatine doesn't help you lose weight in any meaningful extent so I'm aware of no over-the-counter supplements that simultaneously help you burn fat and gain muscle there are supplements that are not over the counter that do that quite well but what what if I'm just trying to gain muscle then what supplements what supplements would you recommend the average person to be taking really regardless of I guess goals if their goal is to be a little bit more lean with their muscle mass if their goal is to build muscle is it different types of supplements you'd suggest or creatine Works to build muscle it's got awesome cognitive benefits it's just healthy for you and it's great so five grams per day for most people of creatine monohydrate super awesome have you got to load creatine I remember when I used to load creatine that's basically like a corporate scam that's just trying to get you to consume more creatine so you buy it more yeah after if you load your creatine which is like taking 20 grams per day for a few days you get to intramuscular creatine stores that are optimal like in four or five days if you don't load creatine you get there in like 5 to 10 days because you're taking creatine either for months or for life it's just a moot point so creatine loading is a gigantic waste of time in almost every case Okay so creatine works whey protein casan protein can be an excellent way to conveniently get protein so they're more like Foods rather than supplements those are totally cool but not mandatory if you talk to me like you are now for just several hours at a time let's say we're sitting on a plane together and you're like I'm just a guy who's trying to get like a little bit more this a little that what supplements do I need to take is the wrong time to ask that the time to ask that is like I want to take a run at a natural bodybuilding show what supplements do I need okay then they pay some dividends that are worth noting but supplements are just not in the conversation for important things that health conscious people should have in even in their top 10 of important things need to do the top 10 important things are like getting adequate sleep managing your stress really well consistently lifting weights consistently doing a high level of physical activity etc etc etc those are the big rocks not supplements supplements are insanely overrated as a general rule this next challenge is offered in partnership with with whoop does the idea of waking up with more energy a clearer mind and a feeling of control appeal to you if it does I want you to join me this sober October I stopped drinking a while ago now and it was largely because of whoop time and time again I watched my heart rate variability drop to like 40 after having a drink even one or two glasses of wine when it would otherwise sit nearer to 150 the only other times it would drop this slow was when I was sick or when I was stressed information enables us to make more informed choices and seeing this led me to make a change in my life so if you're a member of whoop look out for whoop sober October challenge in the app and if you haven't joined yet head over to join. whoop.com CEO to

start your free trial that's join. [woop.com](http://www.woop.com) CEO and get ready for your life to change what about steroids they're great what am I allowed to say that what what what are steroids and you you take steroids mhm um do you take steroids all the time and mhm what is the impact so say if you weren't taking steroids how different would you look I know this because I used to not take steroids and when I wasn't taking steroids I uh weighed about at a body fat similar to this uh I would have to weigh probably a80 to 190 lb more like 180 and and this kind of body fat level I currently weigh uh 216 lbs because I'm on a moderate amount of steroids a few weeks ago actually earlier last week I was on higher amounts of steroids and with the same level of body fat I weighed 227 pounds so we're talking about 30 40 pounds of muscle tissue difference between steroids and not steroids have you got a picture of before and after before when you didn't use steroids and you trained and then after yeah it's got to be somewhere we'll try and get it just just just for visual cont sure sure sure you said they're great I was kidding oh right they're great for putting on muscle if you want to jettison your long-term Health and Longevity to some extent yes and your current psychological stuff is someone that's never done it give me a window into what' you do you inject it somewhere you can take steroids orally through pills or you can inject it into muscle so uh usually you would inject it into your quads a lot of people do their shoulders and some people if they're flexible enough do their glutes and how quickly do you notice a difference and how big is the the difference just to give me sort of like your as far as jackness is concerned yeah so if I start taking steroids now yeah how how long would it be before I notice the difference and how extreme would the difference be in your opinion visually after a few months he would be like oh wow okay this is some other [___] after after a week or two you'd be like I don't I don't know my workouts feel pretty good uh psychologically if you're especially introspective and perceptive and you're sensitive to the psychological side effects which I'm greatly sensitive to um I notice in 30 minutes of taking steroids and would I if I did the same exact workout but took steroids would I get different results or would I have to ramp up the workout that I'm doing to see those different results both okay if you have the same workout and you take plenty of steroids you can literally double your muscle gain from that workout if you understand that steroids also allow you to recover faster and better and more completely you can take your workout and magnify it more sets Etc more sessions per week and then you would grow like two and a half times as much muscle sounds exciting but there's always a downside for these things in life isn't there are a few downsides yes what are the downsides that no one's talking about that no one's talking about so there's cosmetic down sides you get an increase in body hair growth this is especially profound if you're female but if you're a male that's a thing I have hair that grows on my ears I have hair that grows on the outside of my nose I have to shave the front of my nose now a lot of that's just be being a Russian Jew and this hair just grows out of our eyeballs but [___] happens you get pimples you get stuff like that over the longer term you get an A substantially increased risk of heart disease if you're smart you take blood pressure drugs to counteract the blood pressure increase if if you're dumb you take it on the chin and you have a high probability much higher of kidney failure later in your life and losing your limbs and your vision and all that good stuff that comes with that there is an increased probability or severity of cancer uh steroids increase the probability of damn near every disease kind of central systemic disease that you can have but that usually happens much later and so while you're on them you deal with a cosmetic side effects increased probability of balding uh and the psychological side effects which are highly unpleasant I can get into in a bit if you're a teenager there's an entire class of steroids that close your growth plates early so if you're under the age of definitely 22 as a male and you take steroids there's a very good chance you will never reach the adult height you were supposed to reach if you just let nature do the thing so when teenagers take steroids I this almost always categorically a super super terrible idea also they're not intelligent enough uh yet some teenagers are very smart they're not wise enough yet to be able to make that trade-off appropriately mhm and so that's a huge sort of different topic but um the psychological side effects are a lot of times the things that are the approximately most displeasing part of taking steroids some people like them but they're they're also a mixed bag tell me about the before we get on to the psychological effects what about liido because I've heard all kinds of things I've heard it shrinks your balls your Willie something like half of all people will experience testicular shrinkage while using steroids your boy got lucky my shit's all the same size a lot of people roughly half will experience a decrease in ejaculate volume and a profound decrease in fertility that does not mean you're not infertile I know many people I know many people's

children that were fathered when the people were on steroid so some people are like ah I'm on gear I could just bang away and nothing happens like that's not true uh steroids have never been shown to uh change the size of your Willie uh there is no mechanism by which really they can do that um so that's not a problem but steroids depending on the steroids you take depending on your own individual biology depending on the ancillary drugs that you take along with it uh steroids can either have no real effect on your libido have a profoundly upregulating effect on libido or like hunger like you would not believe and for other people you get um an increase in libido but some steroids for example decad durabolin and some people it's a type of steroid radically escalates your labino you turn in just as hungry and at the same time gives you in many cases Dependable um uh inability to uh sustain an erection so erectile dysfunction risk goes up a lot that's a real big problem because like you want it but it's not around it's not around for the picking there so there's all that kind of stuff plays plays a huge role and a lot of the other side effects are increases in anxiety increases in aggression um increases in disagreeableness and probability of Confrontation steroids have been shown decently well this isn't super confirmed to at least proximately while you're taking them substantially reduce your fluid intelligence and uh they may in the long term reduce your overall intelligence but it seems that if you stop taking them you get most if not all of that back but maybe not all of them so they do make you dumber as a as a general heuristic that's probably true of those psychological implications which ones have you suffered with the most decrease in fluid intelligence for sure radical increases in anxiety radical increases in aggression um I pride myself on never losing my cool I've never screamed at anyone I've never gotten physical with anyone but the ideas in my head that tell me to do things tell me to do unspeakable things like what they're unspeakable I'd have to speak them you really want to know M um I'm also [___] weird so just remember that no we all bit weird most people uh probably don't have this severity but I'll read a comment on social media directed at me I guess about me um and it's from like you know nameless faceless profile and I begin to fantasize about what it would be like and how much Sublime pleasure I would receive in uh hurting that person at a deep physical and emotional level uh badly hurting them in such a way that they're never going to walk right again and they're always going to remember me and how they dared to cross me do you know what honor culture is no like the idea that like in the hood you step on someone's like a gang member's Nikes and he just blasts you away and goes to jail for 20 years over what steroids the honor culture comes from maleness it comes from testosterone and all brain structures of course but the more testosterone and steroids are all testosterone like molecules if you have 10 times the testosterone like action affecting your brain your proclivity to falling into honor culture like behavioral patterns and thought patterns increases to an enormous extent so tend to take things that are not meant in any poor way as a fronts if they're actually meant as a fronts you tend to catastrophize them in your head and like this is the thing like I'll be brushing my teeth in the morning in the shower and like thinking about people in my life that have wronged me I've never been wrong in any real serious way and I'll just be like those uncontrollable fantasies of rage and aggression and righteous anger and revenge I hate that like as a philosophical minded person I just want to hug everyone in the world right now I'm on not so high levels of steroids I'm just man I make jokes with every I'll start conversation with random people in the street no problem and so when these thoughts consistently enter my mind on higher doses I'm just like oh why and I'm never like I should be feeling like this I'm like this is really annoying and really terrible so if there are all of these physiological and psychological implications which you know you said it basically increases your chances with all of the major diseases from card cardiovascular diseases to cancers to um other diseases but then also there's this ongoing psychological consequence of taking steroids what's the point that's a good question recently I've taken a probably several year backseat away from competitive bodybuilding precisely because I have a lot of good things going on in my life and I'm going to need my brain and my um more fluid civility to deal with them best uh and for a couple of other reasons so right now is an interesting time to ask me why I do it because I'm kind of like winding that down big time but um the real reason is uh one of the reasons that I started steroids is I was drug- free for a long time and I was starting to become kind of an educator in Fitness a promogator of opinion and a lot of the people who were in the industry at the time this is not as true anymore now drug-free bodybuilding and fitness is exploding which is a beautiful wonderful thing but back when uh Nick and I came up to be relevant in the fitness industry you sort of had to be like super super Jack and super super Le it's nothing we were

going to accomplish drug free so we were like this is where the road leads to being taken seriously as a thinker in the space let's do it another thing is um I really like like being or at least for a long time liked being enormous and ripped why and um just like a like you ever see how a four-year-old looks at like a garbage truck or a tank or an airplane like just that why it's as simple as that biology and I'm at the extreme end of masculinity brain wise to begin with and so you see a movie where like the Hulk rips off an airplane wing and throws it some people be like whoa some people are like I hate this movie and some people are like oh my God I want to just be that that whole thing why I want that it just feels good but you know why because have you got any hypothesis as to why why you versus someone else because the average person doesn't have that feeling so have you have you been able to figure out in hindsight why you were so taken by being big I have a few ideas I'll I'll I'll cavey out this idea with the following um retrospective analysis of why do things is almost always grotesquely flawed most of why we do things is a combination of variables we don't understand and genetics and so like the whole life story arc well it all started when a teacher in the third grade like that's [_] that's a backwards justification you made up so the following statements are backwards justifications I'm making up as just tentative very not not sure hypotheses um here's a fun story this will be fun um when I was uh small uh young my dad would wrestle with me a lot and um he would always uh let me win in the end he was great he's a great person and he would always tell me that I was strong and capable and then uh in like end of elementary school all the way through the beginning of high school I was bullied honestly like literally a few times I think I was just the wrong person to bully because that very temporary state of disenfranchisement and powerlessness um I'm never going to be bullied again to put to put it simply I wish I was logical enough that when like if I was getting robbed by someone at knife point or not even knife point just like just a guy tried to be like hey man get out of my way no I said get out of my way I'm going to die here before I move out of your way you either going to treat me with respect or one of us is either going to jail or the morg or the hospital mhm it's a terrible thing to think it's stupid beyond belief just be like sir my apologies please keep going but what were you bulled for nothing nothing just kid just wanted to bully people we want to understand the con what was going through your brain at the time like what you were thinking in that moment because I think we can all think back to well too unfortunately too many people can think back to a time when they were bullied in some way whether it was a day or whether it was something that was a bit more prolonged you know and it be and they started to it started to embody that sort of pain and shame and that feeling of I'm different from these other kids some of my best friends have talked you know they've been to therapy and their therapists have I think figured out through some of that retrospective analysis which obv obviously a lot of the time isn't accurate that much of their adult Behavior today correlates back to an early experience in such a way where they were made to feel a certain way in that social environment where we're so sort of formative yeah how did it make you feel I felt scared and I felt like I um wasn't brave enough to stand up for myself later I began standing up for myself and that felt very nice but it I felt like I was out of control and a part of my brain that I didn't consent to made me frown and dipped my head down for me it was almost like musculature and my neck just deactivated it it's a ancestral uh mechanism that everyone has uh kids all the way up through teenage hood and adulthood sort themselves male children into dominance hierarchies it's just the dominance hierarchy sorting itself and someone confronted me and I automatically sorted myself beneath them I felt beneath someone I felt weaker more inferior less apt less capable less confident less strong and I didn't even have consent to it it's not something I chose I was a go this kid will beat me up I better not it was totally uh a subconscious behavior and looking back on it I did not enjoy how that made me feel do you remember a specific day where a specific thing happened because I can think back to a spe a couple of specific days when I was younger that I think shaped me in that regard where I was pretty much the only black person in the school I remember an evening where this particular kid called Sam had like cornered me and called me the nword and everyone was there and you know I'll never forget those days they're like etched into your mind as you know Unforgettable memories of pain of Shame of that that feeling MH do do you have those a particular day yeah sure could you share that with me this is getting deep huh um I have a few incidents one probably stands out the most so it was a kid named Darren and he was black um almost certainly fatherless um preder naturally physically developed for his age he was 10 so was I we were just wrestling I wrestled with everyone he beat me in wrestling he was the only person I believe to beat

me in wrestling my whole childhood cuz like he was like a 14-year-old kid in great shape and I was a 10-year-old kid and he beat me in wrestling and that was cordial cuz like it just is wrestling but he had braces I think and he cut himself while wrestling with me and he was bleeding out of his mouth and then he got really upset about that and he like kind of stood over me and he was like like you know you little this and that like you did this to me like I'm going to f you up and all this other stuff and that's when that mechanism switched when he did that to me my whole perspective on the world changed for years I was like a confident happy kid and then after that for four or five years maybe longer all of my confidence drained out I became introverted I am not naturally introverted and um that his presence alone uh reminded me that I need to keep my head down and otherwise I get real scared and I didn't want to be scared and so that's how that worked and it wasn't like he got something like your [___] is racial that's deep Bro my shit's not deep at all it's just two kids and one of them punked it out I was just the wrong person for that to happen to and I remember fantasizing when I was in like sixth grade I think like a year later like wouldn't it be great if I brought a baseball bat to school and just broke his legs and just kept hitting his legs to where he'd never walk right ever again cuz he wronged me that bad I felt that deep and true I'm going to keep the statement as contextual as I can with full understanding of respect for the gravity of what I'm seeing when the Coline people did what they did I thought it was egregious and terrible I also understood how you could be pushed to do that now in their particular case I don't even know how they were pushed or whatever but enough bullying make you consider doing terrible things to regain your honor and so that was probably like the most preent I was bullied in other situations again like I might have been bullied three or four times my whole life but it just it just did not sit well with me at all for a long time it changed how I expressed myself to the world and even right now as I talk to you I'm getting pretty emotional I say like if I see that guy again in real life if he's even around I have a brown belt in Jiu-Jitsu now I'm almost certainly bigger and stronger than him is he safe around me probably can I guarantee his safety if he brings it up no if he watches this and hits me up and goes hi I got you little [___] if I see him in real life I might take something from him Medical Science can't give him back within the next five or 10 years what a terrible idea I'd go to jail I have a lot of really good things going for me it would be wrong in every single way it wouldn't even be ethical because he never like beat the crap out of me or anything like that it was that like he brutalized me and my God like I'm going to [___] someone over some [___] childhood he also Steph he was 10 the gravity of How Deeply it feels to me even right now at age 40 he like man yeah that [___] definitely meant something it's interesting because um I think for the first I'm 31 now so I think for the first 27 years of my life if you'd asked me why I do what I do I would have in hindsight probably told you a story that sounds a little bit heroic I I have this drive and I have this motivation and I had this goal and I went after it and it was all like self- agency and all that stuff but the more and more I've learned about I think psychology generally and how humans as I often say are sometimes driven and they're dragged and it's hard to tell the difference M like whether something is drive or whether it's like you're being dragged MH um compulsion like compulsion that you just can't explain um because of maybe a trauma or an experience you you went through or maybe the the household you grew up in I think I'm I'm leaning more now towards the dragged side of things in most areas of my life especially where I exhibit atypical Behavior like what like a for the fact that I work like seven days a week and I can just and I'm I've always been absolutely obsessed with like achievement and success so why do you think that is because I think I I grew up in a context where the thing that invalidated me was that like we were the poor family that didn't have things and I was black in an all white area um and I was just full of Shame growing up and I think I saw the the medicine to the to the shame as being material success it was the thing that I lied cheated and stole to try and Achieve and you know it's been my orientation for my whole life I think deep within me is this this story that success and material success and all those things make me enough MH and I I didn't feel like inside yeah and I didn't feel like I was enough and as much as I'm aware of that now it doesn't mean that it's going to stop did it so it didn't do you feel like you're enough well it's interesting because if you ask me do I feel like I'm enough I'd say yes like I'm very comfortable with who I am like I think I have somewhat of an accurate reflection of of who I am to some degree but I'm but then I also I contrast that with the fact that why am I still just like obsessively driving towards these ever bigger goals in a way that's really really atypical like not average person you know and why does it matter so much to me you know that's where I go okay there's something different in my wiring

it's still an element this sort of proving my worth to myself or you know proving to the kids back on the playground that you know they should respect me in some way or whatever yeah and it's complicated and I say this not because it sound makes me sound great because it certainly doesn't I just say it because I really believe that more honest I can be with myself the closer I can get to everything that I want oh sure you know like the closer I can get to holding the steering wheel not being dragged with with a rope at the back of the car I'm trying to hold this steering wheel in my life and that starts with like an honest self self-awareness and one that honestly has only come from uh being more and more confident and caring less about what people think like I wouldn't have said this on camera there's like millions of people probably listening right now I wouldn't have said these things about myself it sounds icky oh I've never told this bullying story to anyone but a few people I was like when you brought it up like tell me about when you were bullied in my head I was like holy [___] all right like this is where this goes well I just think it's everyone I've met it's not you're not you're the same as everyone I've met in that regard probably if I had to write that fake backstory Arc explaining My Life The Bullying thing is like kind of a little bit minor I have a really gnarly story about having really severe attention deficit disorder when I was younger while at the same time growing up in an ashkanazi jewish family for ashkanazi Jewish Russian immigrants to the US you were either good at school or you were worthless and it's not just my parents thought that they didn't really think that at a deep level they didn't believe it at a surface level I thought that you can't make fun of someone for being fat if they're cool with being fat they're like yeah I'm [___] big hell yeah and you're like it didn't work but if they believe that being fat is terrible you can be like hey uh how much do you weigh and that's it everything changes so for me I believed I had a destiny to be at least competent at school and up until I was 14 I was like in contention for being the worst student at any single school I attended at any single time and the Bittersweet element was my dad is a PhD in mathematical modeling of atmospheric physical phenomena and my mom was a a translator of the Russian language or translator English to Russian and got a master's degree in social work in our second language in America a few years after we got in that's the Legacy I'm dealing with and like I can't do math problems three grades younger than the kids I I got held back in school a grade and so I took that not so well and so later because I was medicated uh for attention deficit it was a revelatory experience as I came up and sort of grew into the idea that was actually fairly intelligent um I had something to prove and it's getting better now because I've taken enough IQ tests and you can only write so many books and be on so many podcasts until people are like you're pretty smart and you you got to start believing it unless you're totally irrational at some point that sinks in so one thing I will say is is there are ways of dealing with demons and insufficiencies that you've developed through your childhood some of them are just having a real deep personal journey in your own head consistently reinforcing good attitudes not reinforcing the bad ones otherwi are talking to friends family other ones are therapy which is excellent for this but I got to tell you Stephen I'm not sure if this is true but there's got to be something to proving the opposite is true through to doing it all to getting I don't know the top or whatever but to like no one in the right mind with this point be like this guy is below average intelligence that would be Preposterous to say I've uh taken the Ravens Advanced Progressive matrices test and I pegged at scale high so I get every single question right and so my IQ is above 160 we don't know how high because they don't do standardized IQ tests above that you do that enough times you enough PHD programs enough book enough teaching Awards enough authorship enough all the stuff enough millions and app designs and all the stuff and dealing with otherwise really smart people and they walk away being like [___] that guy's real smart enough of that makes you swim in a warm comfortable sea that heals you in a way that maybe therapy can but godamn there's something to just do in the [___] thing you take a skinny little kid who's bullied you make a Muhammad Ali champion of the world enough title fights later you like hey Muhammad Ali what you going do about this he doesn't even Flinch come at me so yeah it's nice to say and I think it's true that therapy and self-care and all these things can heal the soul there's something about overcoming and becoming superlative to that thing you used to fear that might heal your soul to a huge extent I think maybe I've witnessed that again maybe this is all just make belief it sounds real nice no I I completely agree and it's perfectly what I've experienced in my own life and as you were speaking I was was thinking it's just so clear to me that when you're young you get evidence you get like a stack of evidence about who you are and what the world is and what you then have done for the next 10 20 30 years is to counteract that evidence with

new evidence I think about it like a library I think everything that I went through and you went through when you were younger just added like one book to this shelf and the interesting context of the library is those books are both in informative they're both you know non-fiction books but they're also fiction books and they're also instruction manuals for what you'll do in the future if you think about those first 18 years of your life what you did is you filled this Library full of in books stories self stories and this library that you've you've collected is just a bunch of stories that you believe about yourself now if you want to change some of these stories unfortunately you have to get new books yes so what you did in your life is you pursued um hard things that would put new books on the shelf and when a new book comes on the shelf that counteracts another one you have to take the old one off but you can't you can't just sit around willing the it's it's as you say as an I've experienced in my life the only way I can put books up there is to go and get first party evidence with my own eyes that something else is true and not just once over and over over depending on how stubborn the existing for sure and if they're real stubborn here here's my question to you do you think that childhood experiences build the kind of books that are hard back lord of the ranks type of shits whereas adult experiences that completely countervail a childhood experiences are like little magazine you read out a plane I got so in the analogy when you're a child you put books on the Shelf very quickly they they're all very cheap books because there's nothing on the Shelf so you're just grabbing your mom says uh pigs can fly on the Shelf as you get older actually because there's so many books on the Shelf already and so if I just focus on this analogy of pigs flying there's already a book about Aviation on the Shelf M which means it's harder to believe that pigs can fly there's a book already about animals and their Anatomy so you can't add a new one because there so many counteracting ones already so this is why they often say that young kids adopt you know you can't teach an old dog new tricks because there's so much existing evidence there of something else being true so kids throw them on the Shelf without much interrogation because there's less counteracting books there already whereas adults they take a little bit more time to add a new one because they've got six other books which might tell a different story yeah and so this is you know we think about neuroscience and neuroplasticity it becomes a little bit harder sometimes for adults to I mean I had a neuroscientist here yesterday saying this to me that it becomes after you get to pass to 25 years old neuroplasticity becomes a little bit more stubborn it's still possible up until you die but it's a little bit more stubborn so you just need more reinforcement you need more reinforcement more evidence more repetitions and he he described it as more focus more focus on the thing what one thing that I found maybe is helpful is my my wife is similar to me she's like an insane super gold driven psychotic person and we have real trouble taking a step back and telling ourselves like man we're doing pretty well so every now and again like evenings and weekends especially weekends we'll do some like sounds super lame but gratefulness uh discussion lame at all uh depending on who you talked I guess to my old childh bullies that's lame but um you know it's really weird to say some of these things out loud to yourself and uh there's some resistance especially early um admitting to yourself like uh I I won I won I won I won I did the thing maybe it doesn't work quite that simply but I think it it's good to try because it's a really weird thing to go and be 60 years old and look back on your life and someone's like so what have you accomplished like ah not much it kind of ain't [___] like I've seen you on book covers like right oh that's right okay so I accomplished a lot but I don't feel like I have how dare you rob yourself of being able to s in that beautiful warm sea of self-actualization I think it's worth it for people to focus when you do good let yourself bask in that glow get your time Under the Sun amen and it's all about subjective progress It's all about like this I was going to do a post last night I was thinking like so many people spend their lives I was just I was scrolling through Instagram and I was I wrote the post and I just didn't post it but so I noticed that so many people go through their lives like looking for an enemy like looking for the person or the system or the government or the political party that's currently wronging them and they commit their whole life to just this this focus of who's wronging me and I need to point them out and call them out and scream at them and I've never I've never fallen into that trap but um I do have a competition with myself and I feel like that's very healthy because what I'm actually looking for in myself is some form of progress whether it's how I show up or with my my fitness or with my muscles or whatever this constant um search for progress in myself and there when I do discover progress I can celebrate it and I can have that gratitude we talked about and so anyone's progress whether it's when I went from being a university Dropout to getting my first investor that is like oh my

God and it's only in hindsight and with some aging wisdom that I start to realize that those moments were so unbelievably important they're so motivational identifying your progress and I've done there's two kind of data points that I've really um sha a light on this for me is one of them was Sir David Bford who took the British cycling team from being down and out and depressed to the greatest team of all time winning all the gold medals and he said yes the marginal gains thing that he's known for that's in the front chapter of Atomic Habits was key but actually he said to me he went when you can get a group of people or a person to feel like they're going somewhere because they have a sense of progress he that's what made us um stay in the bike shop till 2: a.m. in the morning and I read another study from Harvard Business Review where they ask people in there in to keep work diaries and then at the end of the study they said point at the day where you had your best day in work and people always pointed in their work diaries to a day where there was a feeling of subjective progress even small yes and that makes you motivated you feel like you are going somewhere which means you you're more likely to do it so gratitude serves a happiness um role but also just a motivational one we have a closing tradition on this podcast where the last guest leaves a question for the next guest not knowing who they're going to leave it for and the question that has been left for you oh crap what is the most meaningful dream brackets nightmare you've ever had and why I don't know if this is the most meaningful dream um but Jesus Christ I'm really gonna say this fine [Music] um as I was when I was a young adult I was starting to experience success with the opposite sex and I just did not ever experience that when I was younger or already of age but younger it's just probably like a bit of a hangup you know for most people it's kind of like when you're not getting and you feel kind of out of it and when I started experiencing success with women my dreams at night changed and one of them was uh go the following dream has nothing to do with females and sex but it had to do with power and it had to do with um an ability that you can I ran out of my childhood home into the street and um I uh it wasn't the street anymore it was just a black empty void and it became a lucid dream so I kind of knew a little bit that it was a dream it was like oh I'm going to do cool Dragon Ball Z stuff you know what Dragon Ball Z is the anime show and I opened up my hand and I wanted to make a fireball and I made an energy ball that was like a singular size but it was made of people's screams it was like and then I woke up and I was like that was so cool not victim screams just Viking screams and I was like that is the coolest [___] and I had multiple other dreams in my young adult life after success as a woman which were dreams of power and I was like God damn if I can have those dreams every night it'll be super happy that's the most uh interesting dream I've ever heard about following someone losing their virginity I didn't say I lost my get out of here I still haven't lost my virginity I've been a good person Dr Mike thank you so much for your your wisdom and your um your information and all the work that you've done in your life because it's formed a wonderfully important perspective on a subject that so many people struggle with I'm going to ask you I'm going to leave you with my with my last question which is what is the most important thing that we didn't talk about today as it relates to the subject matter of getting in shape building muscle that we should have talked about is there anything we left off the table there's a lot to this so we left a lot out um I have a lot more to say about body dysmorphia and how people do relate to their bodies and how they maybe shouldn't or try to weave their thoughts away from various ideas and how maybe they should try to relate to their bodies better and it's a convers I love to have I just don't ever get asked about it super often so I think that in in body dysmorphia in general in self-esteem as it relates to bodies of uh guys that grew up too skinny of girls that grew up too fat I think a combination of getting the body that you want soaking in the Sun and really being like I'm the hot girl now this is really happening and how to relate to your body there's a plethora of wonderful ation around that that um if I had a time machine I go back and interrupt you and just be like let's talk about that instead maybe we can sa that for another time sure Dr Mike thank you so much where do people find you your YouTube channel is incredible so I'll link that below just YouTube Everything links off of YouTube and you've got your app as well which people can go and check out links off of YouTube as well links off YouTube two apps okay so if I go to your YouTube channel I can find everything boom great my Dr Mike thank you so much huge honor and pleasure thank you so much every single time you eat you have an opportunity to improve your health and that's why I love Zoe because Zoe helps me to make the smartest food choices for me and my body and as you guys will know by now Zoe is the sponsor of this podcast and I'm an investor in the company and if you haven't tried Zoe I highly recommend you do because Zoe combines My Health

Data with Zoe's worldclass science and using those two things Zoe guides me to Better Health every single time I make a food choice and eat which means that I have more energy better sleep better mood and less hungry and the most important thing is Zoe actually works it's backed by their recent clinical trial something called the method study which is the gold standard of scientific research I started Zoe just over a year ago now and I've been able to track my progress week after week so I can learn how to be even smarter the following week and if you haven't joined Zoe yet I'm giving you 10% off when you join Zoe now just use the code ce10 at checkout isn't this cool every single conversation I have here on the DI CEO at the very end of it you'll know I asked the guest to leave a question in the Diary of a CEO and what we've done is we've turned every single question written in the Diary of a CEO into these conversation cards that you can play at home so you've got every guest we've ever had their question and on the back of it if you scan that QR code you get to watch the person who answered that question we're finally revealing all of the questions and the people that answered the question the brand new version 2 updated conversation cards are out right now at Theon conversation cards.com they've sold out twice instantaneously so if you are interested in getting hold of some limited edition conversation cards I really really recommend acting quickly [Music] oh [Music]

References and Recommendations: No references or recommendations found.