

# Avoid Weight Training Plateaus & Helping Nonresponders | Dr. Andy Galpin & Dr. Andrew Huberman

Yeah I've always noticed that there are certain muscle groups that are very easy to isolate when under load and those are almost always the same muscle groups that are easy to contract very hard without any load whatsoever. Bingo. You know that's actually really insightful. So um you can kind of use this heuristic of of like if you can contract your lats just standing here you're probably going to contract them very well when you lift. If you can't you can probably assume about the same thing gonna happen. So uh yeah you'll know um this actually the lats are actually really interesting um because they tend to be one of the more difficult muscle groups to learn how to activate. So if you're in your journey and you're just like I have no idea and um you can look up like a lat pose. So how do you like how do you puff your lats side. How do you show it. And if you do that and you're like wow there's no movement here. Just recognize that's extremely common and that it's probably going to take you many many many months of trying before you start to see some movements and probably even a few years before you really start to see activation. So you you're not some sort of like specific like special genetic anomaly. It's very very common. It's uncommon to not be able to activate your biceps right. That everyone can do that. But if you're just like man I can't get this here I'm just gonna stop doing it. Do not do that. Just keep at it and just keep concentrating and thinking about that muscle group. It will take some time. It's very common to to have challenges activating lats. Yeah I've noticed that many of the muscle groups that were responsible for a large fraction of the work in the various sports that I played as a young child are muscles that are very easy for me to selectively isolate and induce hypertrophy. And um I suppose I'm one of those mutants where my lats happened to be one such of those muscle groups. But I think that's because I swam a lot when I was a kid. Every kid in my town swam and played soccer. And then later I you know I skateboarded and did some. You generally hear that answer is you either were a swimmer or you were a wrestler. So it's like that pulling and pull to is is thousands of repetitions allowed you to get very good at contracting. But because um I also played soccer and skateboarding but I didn't do any baseball basketball or football muscle groups like deltoids are very challenging to activate and isolate. So I do think that early

development is super imposed on a genetic template that sort of predicts which muscle groups are going to be easier or harder to isolate and and train It's also a very good case for why it's important to do as many different athletic activities as you can in your youth Yeah And if you do skateboard definitely learn to ride switch because every every skateboarder I know has one leg that's larger than the other and one calf that's larger than the other And actually for that matter um people that do martial arts they don't learn to um if they're not South Paw if they don't learn to switch up and do their uh their work South Paw you see the same thing I mean you're building an asymmetry into the system and it's not just muscular it's neural strongly neural Um So yeah kids um parents get your kids doing uh a bunch of different things I suppose gymnastics would probably be the best sport all around in terms of um movement in multiple planes and activating all the different muscle groups Uh Yes and no Um there's a lot of benefit no question about it There's a lot of other things though that it that has limited ability So um almost everything in not like gymnast is great but almost everything in that is preplanned which is a major downfall right So the joy of skating is there's so much proprioceptive input that you have to make decisions very quickly Um in in small windows Now you have a little bit of that when you're flipping in the air and you have to land but you gymnastics gymnasts tend to have a very specific routine that they're working on and they work on that routine for years So um skateboarding for me was transportation It was freedom and it didn't require any coaches or parental oversight Ball sports have the beauty of reaction and things like that So all of them are wonderful Um Yeah good to do a lot of them You've established that 10 really to 20 sets per week is the kind of bounds for um maintaining and and initiating hypertrophy If I were to like flag one of them I would say 15 to 20 is the set that you want to get Um working Now it gets complicated when you ask how many reps per set do I have to get to Ok Well we also can complicate that by repetition type and tempo Just sort of let all that go for now and just think if you're getting close to that range you're in the spot and all you have to do now is balance two things Recovery continued training Ok So if you're somewhere in this 10 to 20 working sets range and you're in a position where you can continue to do that You're not so sore and so damaged and beat up that you can't maintain that volume for you know eight weeks at a time or at least six weeks at a time Then I'd probably say either the style of repetitions the amount of repetitions per set you're doing are too much The volume is getting to you However if you're not seeing adaptations

then I'd say maybe the repetitions aren't enough And so that's like that's the kind of game you're running Now there could be plenty of other factors intensity of course yeah intensity um intent And then of course the other things sleep nutrition et cetera All these other things that that go into our visible stressor category that we always analyze This is sort of brings up this idea of responders and nonresponders So we get this one a ton So why is it some people Uh my my gym buddy my roommate we go to sleep at the same time we're on the same nutrition plan We work out together uh she triples in muscle size and I don't have like no gain whatsoever Well there's a lot of um work that we're trying to do to identify the molecular mechanism behind responders and nonresponders because they clearly exist In fact this is one of the reasons why uh every paper I basically will ever publish again If I you know if I do always reports individual person data So rather than group averages you get to see you know if there's 10 subjects in it you get to see how each of the 10 responded because the group average can get confusing What you really want to see is how many actually people got better how many got worse um how many may be changed And if so um so we'll always report those individual data because when you go to the train you're you're you're not the group average that's very important to know right So if you do that you can see a beautiful line of these hyper responders the bell curve in the middle of the normal responders and those folks who like through any training study just won't get any better Um If you can tease out what you can't but let's say in science you could tease out all the extra factors total stress load hydration sleep et cetera What you often see is nonresponders a lot of the time It's not that they have a physiological inability it's just that they they need a different protocol and a lot of times it's they just need more volume So if they can handle that and they're not excessively beat up just give them more volume and they tend to see a lot of breakthroughs Um You see the same thing with plateaus Um So typically it sort of just like OK the routine you're on you've been on it for too long we need to either go to the other end of the hypertrophy spectrum for intensity which means like if you've been in the like 60 to 70% of your one or repetition max range maybe we actually need to go heavier Uh take our repetitions down maybe even our total volume down and go heavier Try that a great way to break through plateaus of of grain if all the other boxes are checked Um The other one is is do the opposite which is like OK we're gonna go higher we're gonna go set to 20 set to 25 high very high repetition range and really get after it um not do as much damage because you don't tend to get a sore

from those really high repetition ranges You'll get more sore from the lower repetition higher intensity range than you will typically the other ones and and see if we can bust bust through some plateaus there So it it just generally means you need to do something a little bit different than your your training partner