

# PERFORMANCE MENU

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### Clean Mass Gain: A Case Study

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Few topics I've talked about writing about have garnered more interest than my "clean mass gain" experiment. In fact, as noted by Greg Everett and Robb Wolf in earlier PM articles, few topics in the physical culture realm receive more attention than gaining muscle. In an effort to write about this subject from a personal perspective, I recently undertook a clean mass gain experiment, gaining 12 lean pounds in 5 weeks. I intend to share both my methods, focusing on the nutritional aspect, as well as some of my thoughts on mass gain here, however tedious they might be.

#### Health, Performance, or Both

Keith Norris speaks intelligently about the correlated-but-not-synonymous nature of performance and health. I'll not dissect that topic here; that's a longer discussion for another day. However, his general point is that at levels of performance approaching "elite" (whatever that is), health must be compromised to continue to support performance enhancement. We'll operate on this premise during this discussion.

It is important to recognize that, to a very large degree, performance enhancement tends to be synergistic with health promotion, and there is fortunately a long period of high correlation between health and performance as both improve. Of course, it is possible to do things that, for a limited time, profoundly enhance performance, but have the potential to be destructive to long-term health. Said another way, I believe that optimal performance is built on a deep and solid foundation of health, and that it is difficult for most individuals to achieve very high levels of performance without that foundation. Furthermore, in the vast majority of individuals, building that solid health foundation should take precedence over a pure performance-driven program.

In Greg Everett's [Mass \(A\)Gain](#) article, he made the point that, for competitive athletes who are aggressively seeking mass to enhance already good performance, vast amounts of food are necessary. And in this particular scenario, he wrote, quantity takes precedence over quality – "more" unequivocally beats out "better." However, the challenge faced by us normal people (amateur recreational athletes and fitness enthusiasts) is that many who desire to aggressively gain mass to increase their performance unwittingly sacrifice already suboptimal health in that pursuit.

#### Why Would You Want To Do That?

After all those preliminary meanderings, I'll mention that this article is addressed primarily to normal folks, not elite-level performers. Those statistical outliers have somewhat different "rules," given that their level of performance is often in spite of their nutrition, instead of because of it. (I won't guarantee to make Michael Phelps, famous for his not-so-clean diet, faster by altering his nutrition plan – though it's not unimaginable.) Truly high-level athletes have already made a decision, consciously or otherwise, to sacrifice some degree of health for performance, and they often employ different strategies than mentioned here quite successfully.

But while interacting with hundreds of "normal people" at our nutrition workshops, it seems that health and longevity are at the core of many people's desire to gain mass—in essence, more muscle will improve physical capacity, glucose disposal, etc. So I'll operate on the premise that you're reading this because you care first and foremost about your health, potentially with secondary goals as well.

## What's Your Motivation?

Before jumping into any mass gain program, the intrinsic motivation for desiring to gain "mass" (presumably mostly muscle) must be first ferreted out so that an appropriate strategy may be employed. In my experience, there are three primary motivations to gain mass: performance, health and vanity. Those are not mutually exclusive, nor is vanity an unworthy reason for undertaking a mass gain program. Furthermore, most individuals don't have a singular reason for seeking more mass; generally, there is one primary motivation, with some secondary motivations in the mix. Determining which is primary will be key in determining your plan of attack. Just be honest with yourself (and, if applicable, your trainer/coach) about your primary motivation to seek more muscle, as that will make you more likely to facilitate success in reaching your goals.

(Aside: If, after some introspection and detailed goal-setting, your primary focus is not health, but aesthetics, there's good news for you. That particular formula has already been worked out to a very large degree by physical culturists, and refined even further by bodybuilders. I will not disparage your goals, but it is not necessary for me to write further about that topic – a host of publications already outline that kind of a program with generally good results.)

## What is "Clean"?

As part of our consulting practice, we run into lots of folks with (often unidentified) food intolerances and pre-existing health issues that require a "cleaner" day-to-day diet. We employ a flexible Paleo-ish nutritional strategy with them, generally with great success. For most people, the closer they get to an unprocessed, squeaky-clean "Whole30"-type diet, the better their overall health. The categorical omission of foods like sugar, alcohol, grains, dairy and legumes is highly simplified, sure, but in our experience, the vast majority of our clients don't do best with one or more of those general categories of foods in their diets.

So if most people attain excellent health with this type of nutrition strategy, and this article is directed primarily at health-oriented individuals, then a "clean" nutrition strategy seems well-matched for putting on mass while retaining health - even if that mass gain plan is fairly aggressive. The oft-recommended "gallon of milk a day" (GOMAD) program seems to create as many problems as it solves, and the inclusion of more overtly unhealthy choices (e.g. ice cream) and processed choices (e.g. most protein shakes) don't seem well-suited to those of us with a significant health bias.

During my mass gain experiment, I used the phrase "clean mass gain" to express that I ate a grain- and legume-free diet, and that the only dairy products I used were pastured, clarified [butter](#) and organic heavy cream. I reasonably limited my added sugar intake (I didn't go so far as to forgo ketchup, for example), and consumed only two alcoholic beverages in the course of the month.

For the record, I don't think that a "clean" plan has to mean "sanitized of all possible contaminants." Frankly, the plan itself was hard enough, and trying to gain significant mass while doing the Whole30 might have pushed me over the edge.

## Training: Move Heavy Weight. Move Fast.

My training program during the Clean Mass Gain (CMG) was simple, hard and effective. With the stellar program design and coaching of Rob MacDonald at [Gym Jones](#) (my regular gym), I trained 3-4 days per week, emphasizing big, heavy movements at high intensity. The focus of this article is the nutrition aspect of the CMG experiment, but I'll outline a typical week of training for interest's sake.

I trained at Gym Jones three days a week (M, W, F), with one additional session per week on my own. Each day had a primary goal, a primary focus. Mondays were a big neurological day, with a goal of increasing neural activation of big muscle groups. For example, I'd do 30 second intervals of speed squats (loaded with <40% of my 1RM) with 30 seconds of rest, for 6-8 intervals. Another effective session included 5 sets of 1-2 deadlifts at >95% immediately followed by 3-5 tuck jumps, depth jumps or tall box jumps with full recovery between sets. (If you're interested, do some Googling on post-activation potentiation.) Mondays were the one day that I had two sessions; the afternoons included a track workout. A sample track session would be 10 x 100m sprints (with 1 minute of rest between), or 5 x 400m repeats (with 4 minutes of rest between).

Wednesdays had an upper body emphasis, generally with a push/pull pairing. Think push press immediately followed by pull-ups to failure, or heavy bench press plus barbell rows. Fridays came to be known as MFLD. (I shouldn't have to explain.) On Fridays, a 10 x 10 back squat (or front squat) session at a barely tolerable but successful load was more than "effective." (For the record, I increased my loading by 30+ pounds for a 10 x 10 back squat during my CMG, indicating improved work tolerance, and that the added mass was not just "dumb" muscle. And just in case you were wondering, I did no silly isolation-type exercises.)

Movements that had a significant technical aspect were generally minimized. Think deadlifts and squats instead of cleans, and bench press and push press instead of jerks or snatches. (Not to imply that weightlifting is not of value for mass gain – it simply was not part of my program.)

All long-duration impact activities (like running) were avoided during this aggressive plan. Frankly, metabolic conditioning in general was avoided since it would detract from the primary focus of creating an anabolic environment; the track work was more directed at the production of an acidic muscular environment and neural stimulation than any overt focus on cardiovascular fitness or energy production. As was expected, my conditioning suffered tremendously during this time period, but you can't do it all.

## Recovery Matters

Training intensity for the duration of my CMG was maximal. That approach can be pretty destructive, but my recovery practices (persistent little bugger, that recovery thing) were forcibly, radically expanded from pre-CMG levels. Every training session was followed by either an [ice bath](#) or contrast shower (ice baths were generally used after the higher volume, leg-intensive sessions). Sleep became my second (or third) full-time job. (We'll come back to the discussion of sleep, but understand that naps and 9-10 hours of sleep became my norm. It had to be that way.) Foam rolling, mobility work, easy recovery walks or casual 30-60 minute Airdyne rides helped with recovery as well. Additionally, I had deep tissue bodywork done almost weekly.

If that last paragraph gave you pause about what type of lifestyle it takes to support an aggressive mass gain program, it should have. For those of you who simply do not have the time to dedicate to extra sleep and additional recovery practices, an aggressive mass gain program will likely be less successful. That is not to say that it is not possible – I only wish to emphasize that success is highly contingent on a lifestyle that supports such rapid mass gain. (It's not just about eating more and moving heavy weight.)

## About Me

In order to put this case study into context, here's a bit about me. I'm 32, with 15 years of training history, ranging from volleyball and silly bodybuilding stuff to CrossFit and some hideous Olympic weightlifting (just ask Dutch Lowy). At 6'4", I've been between 195 and 205 for the last five years, with no effort to directly alter my bodyweight or body composition.

As much as I don't like the "hardgainer" word, that's me. I typically run 5-7% body fat, and gaining useful muscle mass is hard for me. I've been eating a largely Paleo-type diet for about five years, and friends know me as a big eater. I tell you this just so you have a little context. If I can be successful with a CMG program, pretty much anyone can – with adequate commitment. In a period of five weeks, I went from 198 lbs. to 210 lbs., with a negligible increase in body fat (admittedly very subjective). I got as high as 213 lbs. at one point, but couldn't maintain that weight with my busy lifestyle. I discontinued the CMG after 7 weeks. Note, I wasn't interested in dissecting muscle mass vs. fat percentages, and therefore did not get a precise body composition measurement (like a DEXA scan or hydrostatic weighing).

## The Core of the Program: Eat. More.

While I was thrilled with the training program Rob put together for me, I don't place that at the top of my reasons for success. So where did those 12 pounds come from? I ate like it was my full-time job. I ate when it wasn't convenient, I ate when I wasn't hungry, and I often ate well beyond the point of discomfort. Like Greg Everett has previously written, the discipline required to successfully gain substantial mass on an abbreviated schedule is, in a word, considerable.

My nutrition plan was simple: eat large servings of meat, fish, and eggs, lots of vegetables and fruit, and add loads of fat to everything. Repeat that as often as possible. I tracked my daily intake once a week out of curiosity, and generally consumed 4,500 – 5,000 calories per day. A ballpark macronutrient breakdown would be approximately 250g of protein, 300g of carbohydrate, and 300g of fat. This was not planned – it just worked out that way.

Every meal was built around a large serving of protein: a pair of 10 oz grass-fed ribeyes (I chose fatty cuts on purpose), 6 - 8 eggs, or 1¼ pounds of wild-caught salmon were common centerpieces. I favored starchy vegetables at meals, including yams and sweet potato, beets, pumpkin, and butternut or acorn squash. I ate a lot of avocado, either "naked" or as homemade guacamole; 2-3 per meal was standard. Pastured butter and home-roasted bone marrow (from a local, trusted source) appeared often, and full-fat coconut milk (sulfite-free) and coconut flakes were a go-to for fat calories. Despite their ubiquity, I didn't use nuts and seeds much, though some macadamias and cashews were thrown in for variety and convenience. I also ate little poultry; after all, Pavel Tsatsouline says that "eating chicken makes you weak, like looking at the color pink."

In between prepared meals, I'd eat whatever was on hand (leftovers, small pets, etc.) and I often made huge shakes with fruit, eggs, and usually coconut milk. In fact, I ate "liquid food" for the same reason that Robb Wolf says "liquid food makes you chubby." The speed of ingestion and wholesale lack of mastication allows more calories to flow in before the significant secretion of hormonal regulators (such as leptin and peptide YY) that function (partly) to control your caloric intake. For most folks, that would set them up for overconsumption; for me, overconsumption was my goal. Which leads me to reiterate another point: an aggressive mass gain program is not exactly healthy - even with "clean" food. Ongoing over-nutrition has some pretty unhealthy effects on your body in terms of metabolic status and inflammatory state - which is why we would never encourage anyone who is overweight and/or insulin-resistant to go on a mass gain program.

Eating a small meal containing some protein, fat and carbs shortly before training was valuable, too - partly to supply additional energy, partly to minimize catabolism, and mostly to get more calories in overall. In addition to my three (or so) meals per day, I also had a large post-workout (PWO) meal. My PWO meal was usually a can of sweet potatoes (Farmer's Market brand, containing about 100g of carbs) plus about 40 grams of unflavored, unsweetened egg white powder, or a half dozen pastured eggs. The egg white powder is technically "processed food," but no one would confuse it with a milkshake - it's awful. There is a price to be paid for laziness (some call it "convenience"). On some days, I'd mix the egg white powder with an additional half a can of coconut milk (about 40 grams of fat).

I ate fruit often, probably 3-6 servings per day. I chose the most nutrient-dense fruit (berries, cherries, melon, etc.) the most often, but bananas and plantains made cameo appearances, too. Another "tool" that worked well for me was a tapioca/coconut milk pudding recipe that I created to cram more calories in between meals or PWO. It's not exactly dessert, but it works. (You can find the tapioca recipe, along with a couple other CMG recipes I used throughout the course of my experiment, [here](#).)

Additional comments: I'm not big on supplements, and in the name of science, I didn't introduce any new supplements during the CMG. I take digestive enzymes (and took a lot more with huge meals), a vitamin D3 supplement most days, alpha-lipoic acid, and a zinc/magnesium supplement at bedtime. I'd

also been using a clean creatine monohydrate prior to the CMG (and continued for the duration).

## The Bad News

Some of you might be thinking that eating all that Good Food sounds pretty awesome. But take it from someone who likes to eat - eating that much is not fun at all. Eating when you're not hungry (or still straight-up full) from your last meal is remarkably hard. No, not just hard... it's awful. The large servings of protein and fat were highly satiating, and I could have easily gone for five or six hours after one of my mass gain meals without becoming hungry. But I didn't, because when you're on a mass gain program, you don't have the luxury of experiencing hunger. Feeling that post-Thanksgiving-dinner discomfort every day is not much fun, nor is telling your spouse that you can't come to bed right now because you have to eat 500 more calories first. The long and short about an aggressive mass gain program is this: it is hard.

For those of you not deterred by "hard", there's more. Eating this much high-quality food was really expensive, and that food prep, eating, and post-meal stupor consumed a lot of hours during my CMG. It's not really practical for super-busy folks, especially those with long work hours and/or families that they still want to spend time with.

And now, back to sleep and recovery practices. In my opinion, if you can't get 9+ quality hours of sleep almost every day, your mass gain results will be muted. Naps help, but do not replace nighttime sleep. And if you do shift work, your hormonal balance (tilted away from an anabolic state due to sleep/wake disturbance) will certainly make aggressive mass gain harder. In addition, if you're not willing to dedicate significantly more time and energy to recovery practices, you might as well not start an aggressive mass gain program. In summary, the increased training demand on your body will simply wear you down (and eventually break you) if you don't "give back" to your body in your non-training hours.

Finally, the last thing about this experiment is that, for me, it simply wasn't sustainable. Unless I continued to eat, train, and recover with the level of dedication I had during the CMG, I could not maintain all the mass I'd gained. I've gained (and retained) considerable strength, but my weight has partially retreated since I completed the program about a month ago. (At

time of writing, I'm back down to 206-208, a testament to the power of a body's "set point".) Nonetheless, I consider the CMG a success.

## Real People With Real Lives

This experiment was admittedly ambitious, and pretty much took over my life for the duration. However, if the realities of your life don't support such a resource-intensive plan, take hope. Similar nutritional concepts, combined with solid training and recovery practices, could be applied in a less aggressive fashion over longer periods of time. Greg Everett and Robb Wolf, among others, have written about that quality-plus-quantity approach in previous Performance Menu articles.

## Rubber, Meet Road

So here are the salient points about the Clean Mass Gain:

1. It's hard. It's not fun. You'd better really want it, and know why you want it.
2. Eat more. Eat all the time. Eat when you think that you're going to burst. (You probably won't.) Build your meals around a huge chunk of protein, and add lots of everything to it. You cannot fear carbohydrate (or insulin, for that matter) on a mass gain program.
3. Planning is key. Have food on hand – in hand – all day. Buy more Tupperware, pack a cooler, make a yam/egg/coconut milk shake ahead of time

(see the recipe link above). Drink straight from the blender jug.

4. Make food palatable. Try new recipes, new spices and new meats. If you are bored of burgers after week one, you're in trouble.
5. Training should be hard, heavy, and simple. Don't try to perfect your snatch technique (or get a front lever) during a mass gain program. In general, 3-4 days a week of moving heavy weight is adequate. More training is not better.
6. More food and hard training only make sense if you appropriately increase your recovery as well: sleep more, use ice baths and contrast showers often, and do self-mobility work and/or have bodywork (your modality of choice) done as often as possible.
7. If there are life factors (stressors) beyond your control, you might not be eligible for such an aggressive program. However, similar concepts, applied more gently, could be useful in gaining functional mass more slowly.
8. Resist the urge to drink milkshakes and eat fries (even if it's only five) just because some pro athlete gets away with it. You are not a professional athlete, and if you are, you've wasted a lot of time reading an article by a guy who shouldn't be telling you much of anything about how to be successful. Sorry about that.

Best of luck to those of you who decide to take this on. Now go eat something.

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