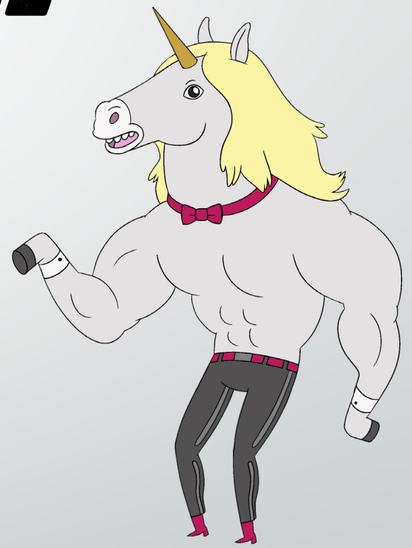
KETOGAINS

CHASE RESULTS NOT KETONES

THE LOW CARB UNIVERSE

MYTHICAL UNICORNS: ON KETO AND THE MYTHS OF MUSCLE BUILDING



Luis Villasenor,

SFN, Elite Trainer & Coach

KETOGAINS

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Disclosure Statement

The authors and presenters of this material assert and maintain that they have no affiliation with nor any conflicts of interest with any business, company, service, or product represented or presented in this presentation.

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WHO IS LUIS VILLASENOR?

Luis Villaseñor is the Founder of Ketogains.com

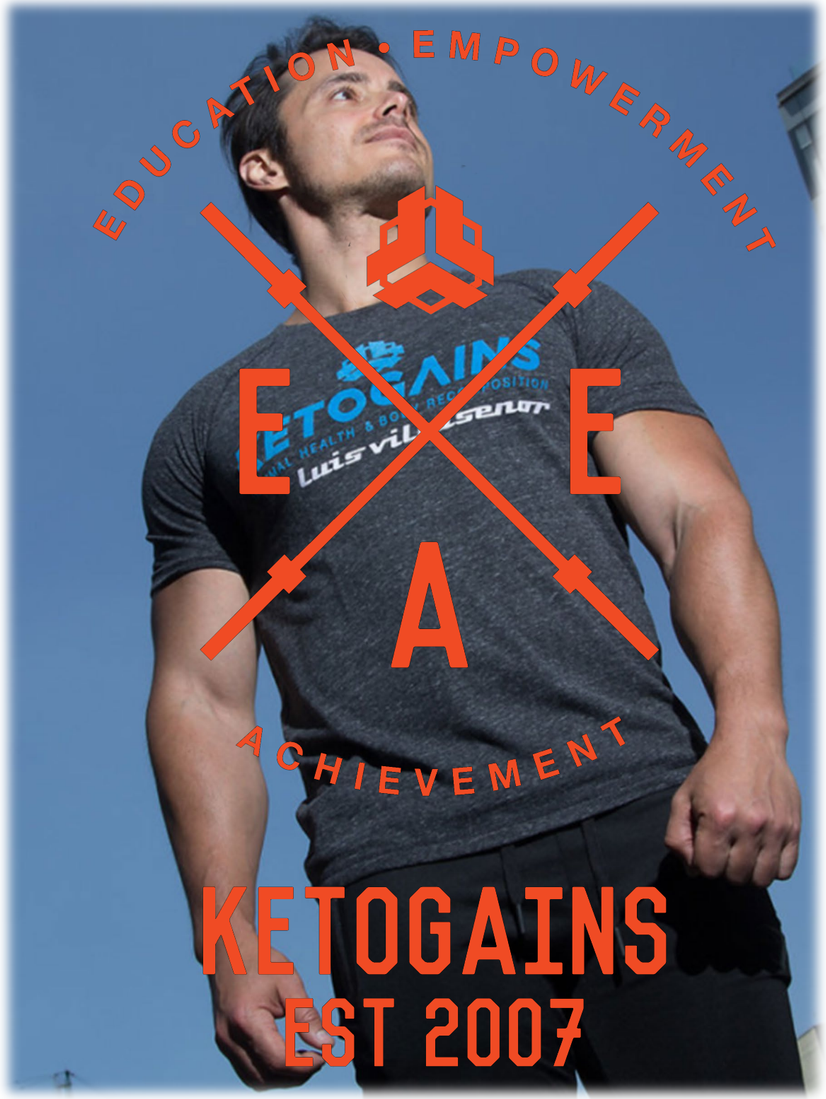
Luis has been experimenting with low carb / keto / whole food since 2001

Referred and cited by world renown experts in fitness and nutrition such as:

Robb Wolf (The Paleo Solution & Wired to Eat), Menno Henselmans (Bayesian Bodybuilding.com), Mark Sisson (Mark's Daily Apple, Primal Health), Danny Lennon (Sigma Nutrition), Kris Gunnars (Authority Nutrition), Dr. Ted Naiman, Kamal Patel (Examine.com); among many more.

Credentials

- *Specialist in Fitness Nutrition (SFN) – International Sports Sciences Association (ISSA)*
- *Certified Fitness Trainer (CFT) – International Sports Sciences Association (ISSA)*
- *Fitness / Exercise Therapist (SET) – International Sports Sciences Association (ISSA)*
- *Corrective Exercise Specialist (SCE) – International Sports Sciences Association (ISSA)*
- *Specialist in Bodybuilding (SB) – International Sports Sciences Association (ISSA)*
- *Bayesian Bodybuilding Personal Training Certification & Spanish Course Main Host and Tutor*
- *CrossFit Level 1 Trainer (CF-L1 Trainer) – CrossFit*
- *Studying for the ISSA Sports Nutrition Certification (CSN)*
- *Studying for the MNU Nutritionist Certification*
- *Studying for the Primal Health Coach Certification*
- *Studying for the Kaatsu Certification Program*
- *Evolution Nutraceutical Company – Sponsored Athlete*
- *Bachelor in Business Administration & Marketing – Universidad Iberoamericana (MX)*



WHO IS LUIS VILLASENOR?

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“An Evidence based Protocol towards Optimal Body Composition."

Whether you want to GAIN health, endurance, strength, speed, muscle or a lean body, it can all be done with a well-formulated, ketogenic diet.”

At Ketogains, we will teach you how to achieve optimal body recomposition following a program that involves a diet of whole, unprocessed foods: low in sugar, adequate in protein and adequate in healthy fats.

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Ketosis is a nice and healthy SIDE EFFECT of our general macro and micro recommendations, NOT THE GOAL in itself: Chase results, not Ketones

THE KETOGENIC DIET

A Ketogenic Diet is one in which the diet is sufficiently low in carbohydrate to cause the body to produce ketones.

LOW CARB VS KETO

Not all low carb diets are ketogenic. Although there is currently no consensus regarding the amount of carbohydrate restriction required to induce ketosis, the term ketogenic diet is often limited to diets containing <50 g carbohydrates per day.

Rich in protein

Rich in fat

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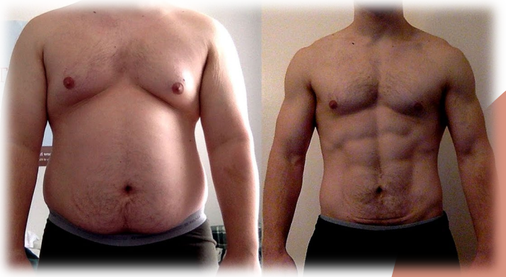
Therapeutic



Fat Loss

Performance

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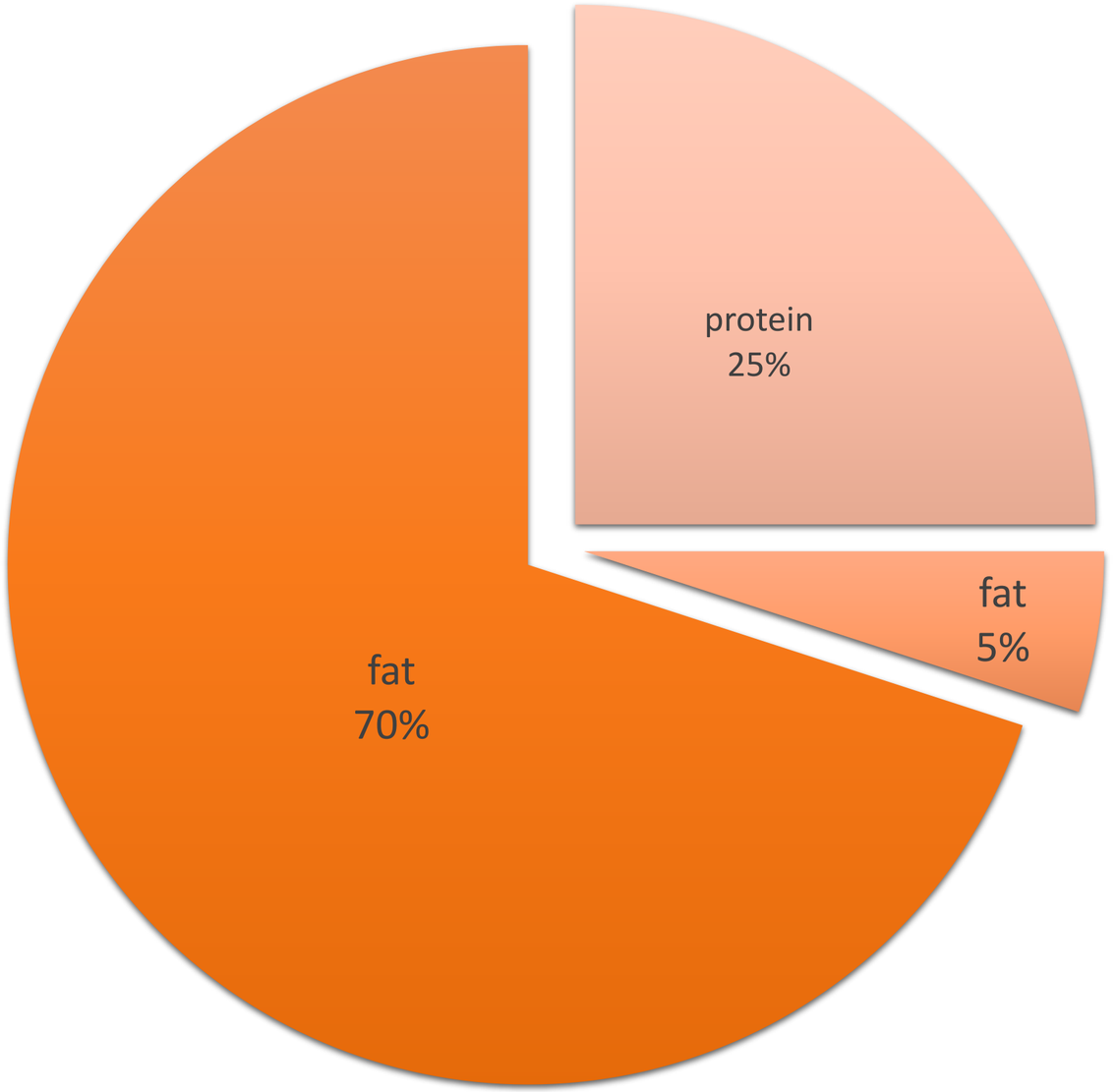
RATIOS VS GRAMS

- The version of keto used in the treatment of pediatric epilepsy, which is what most people know, uses the energy ratio of 25% protein, 5% carbohydrates, 70% fat.

- Ketogenic diets low in carbohydrates for body recomposition DO NOT have fixed proportions of macronutrients.



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NARROW FRAMING

An unnecessary restriction of the definition of a concept:

- The original epilepsy KD was developed to control seizures. For this a very high dietary fat content and low protein intake is necessary.
- And while such a diet may make some people lose WEIGHT quickly, simply losing WEIGHT is not the goal.
- Rather, when the goal is body recomposition, one wants to lose FAT while maintaining MUSCLE mass.

http://www.bodyrecomposition.com/fat-loss/ketogenic-diets-high-fat-or-high-protein-qa.html/

The Ketogenic Ratio

$$\frac{\text{Ketogenic}}{\text{Anti-Ketogenic}} = \frac{(0.9 * \text{fat}) + (0.46 * \text{protein})}{(1.0 * \text{carbs}) + (0.1 * \text{fat}) + (0.58 * \text{protein})}$$

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Did you know you could be on a ketogenic diet without eating ANY ADDED FAT AT ALL?

If you are expending glycogen yet eating insufficient bioavailable glucose in your diet to replenish glycogen, for any length of time, your body will produce ketones while utilizing stored fat for energy.*

Eat nothing — eventually run out of glycogen.		Insufficient exogenous glucose to replenish glycogen	Ketogenic Diet
100% carb diet — but starvation level of calories.		Insufficient exogenous glucose to replenish glycogen	Ketogenic Diet
Eat only protein — metabolism running on stored body fat.		Insufficient exogenous glucose to replenish glycogen	Ketogenic Diet
Eat only once a day — (alternate day fasting) standard carb intake.		Insufficient exogenous glucose to replenish glycogen	Ketogenic Diet
Eat whatever — followed by an insane volume of exercise.		Insufficient exogenous glucose to replenish glycogen	Ketogenic Diet

*note that these are not sustainable and eventually you will have to eat more fat

NARROW FRAMING

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ARE CARBOHYDRATES NECESSARY TO BUILD MUSCLE?

KETOGAINS
CHASE RESULTS NOT KETONES

ARE CARBOHYDRATES NECESSARY TO BUILD MUSCLE?

The question is not so much:

- *"Is it possible to build muscles while eating very low carb"*

But:

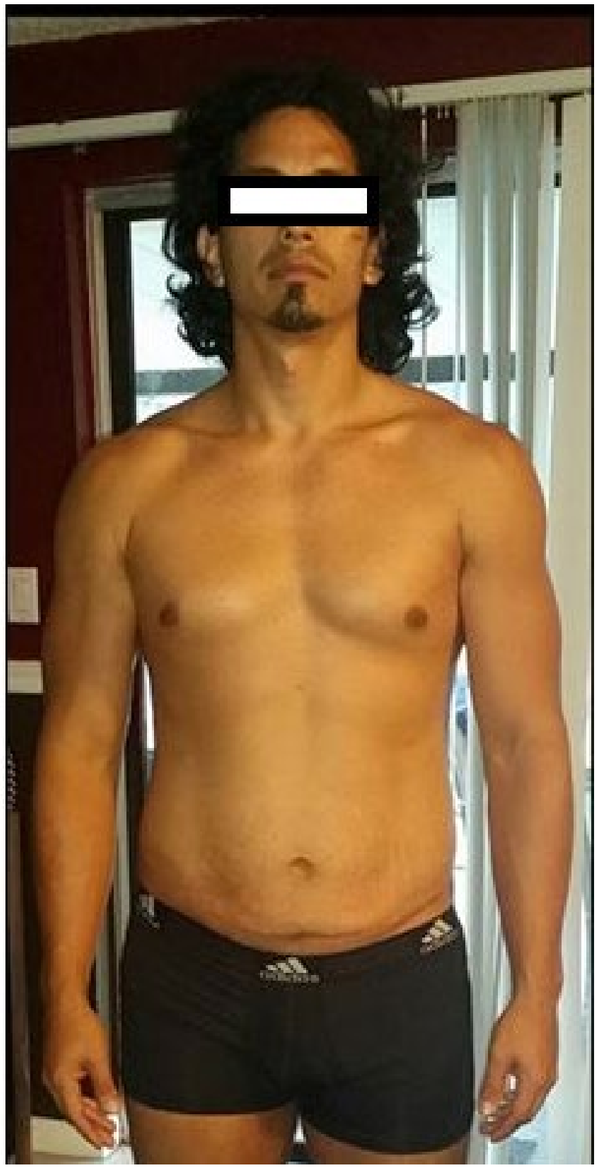
- "Can I build an <u>appreciable</u> amount of muscle, without adding extra carbohydrates into a ketogenic diet?"


IRON DEM
nat
nutt
EAK

1980's

1990's

2000's



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IRON DEM


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“Bro”sary

ANABOLIM – To build things

CATABOLISM – To break down things

MPS - Muscle Protein Synthesis (the “GAINS”)

MPB - Muscle Protein Breakdown

NBAL - Net Balance, calculated as MPS – MPB

AAS - Androgenic Anabolic Steroids

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ARE CARBOHYDRATES NECESSARY TO BUILD MUSCLE?

- *"Carbohydrates stimulate the secretion of insulin; insulin is a highly anabolic hormone (one of its essential functions is to regulate tissue hypertrophy); therefore, driving insulin by eating carbohydrates around your workouts will accelerate Muscle Protein Synthesis (MPS) and accretion on a greater scale than would have been possible without them."*

ARE CARBOHYDRATES NECESSARY TO BUILD MUSCLE?

Conventional bodybuilder theory is that carbs jack up your insulin, which then helps shuttle all the protein into your muscles.

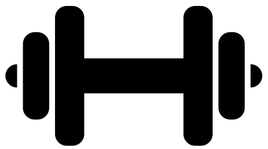
Protein + Carbs > Protein Alone

ARE CARBOHYDRATES NECESSARY TO BUILD MUSCLE?

- Staples et al. (2011) studied this very topic.

- After a weight training session, they gave their subjects either 25g of whey or both 25g of whey in combination with 50g of maltodextrin. They found that consuming 50g of maltodextrin along with 25g of whey **does not stimulate muscle protein synthesis or inhibit protein breakdown more than 25g of whey alone.**

- Carbohydrate (likely via insulin's effect on MPB) only inhibit protein breakdown under extreme dietary or lifestyle circumstances where not enough protein is ingested.



Carbohydrate does not augment exercise-induced protein accretion versus protein alone.

Staples AW1, Burd NA, West DW, Currie KD, Atherton PJ, Moore DR, Rennie MJ, Macdonald MJ, Baker SK, Phillips SM.

Abstract

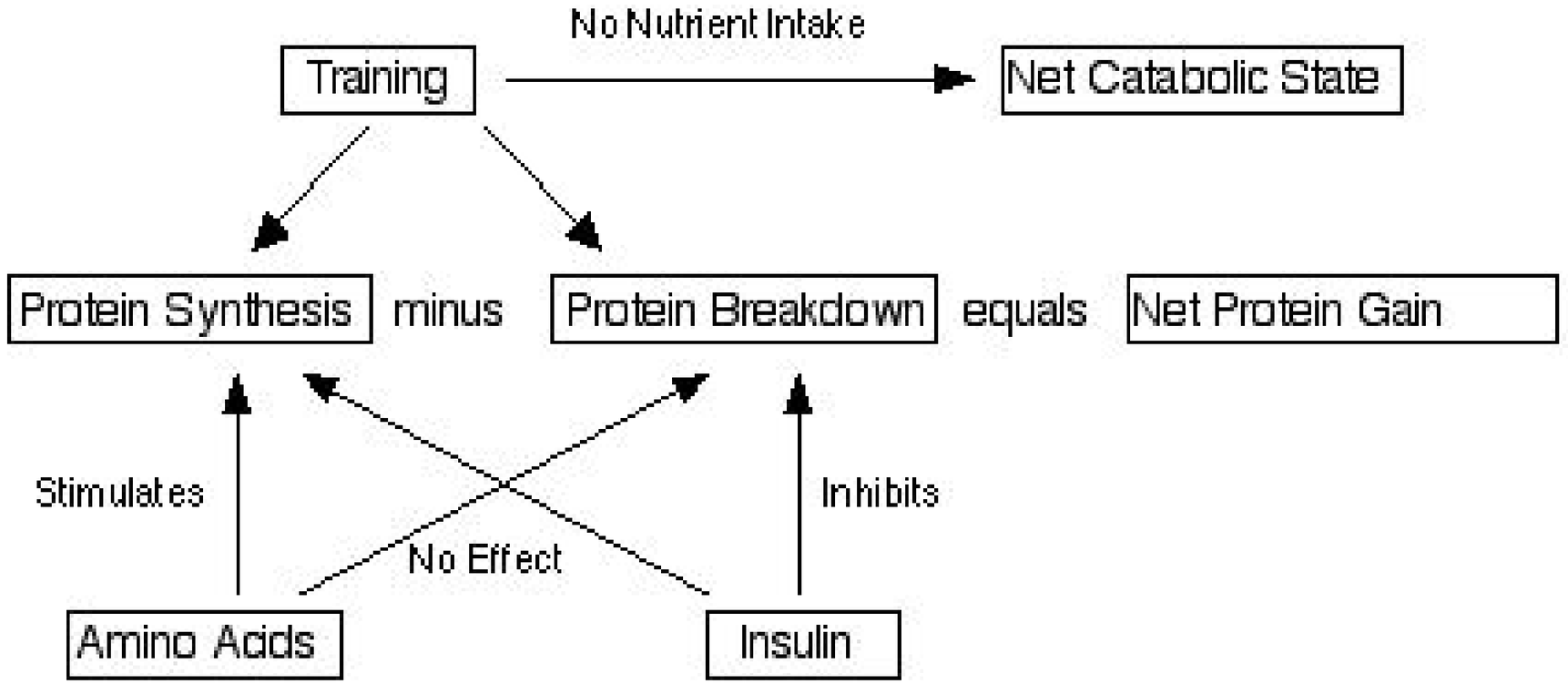
PURPOSE: We tested the thesis that CHO and PRO co-ingestion would augment muscle protein synthesis (MPS) and inhibit muscle protein breakdown (MPB) at rest and after resistance exercise.

CONCLUSIONS:

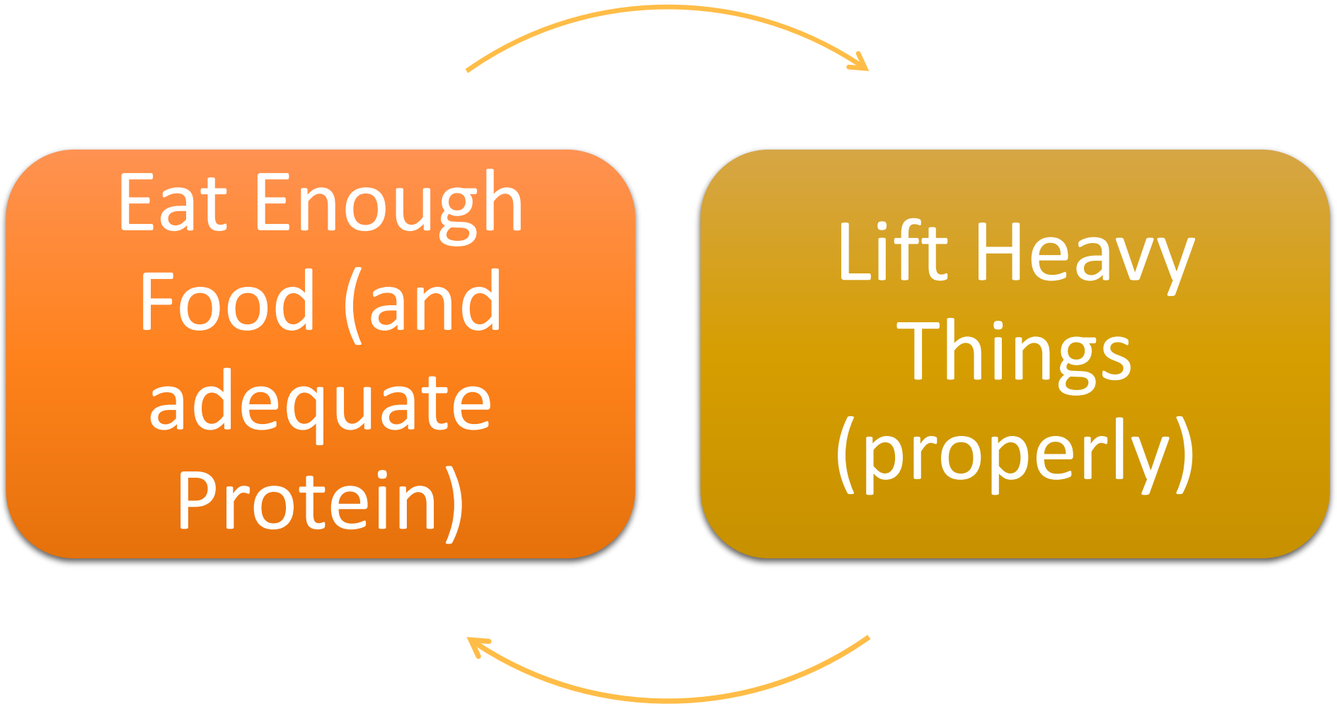
Our data suggest that **insulin is not additive or synergistic to rates of MPS or MPB when CHO is coingested with a dose of protein that maximally stimulates rates of MPS.**

https://www.ncbi.nlm.nih.gov/pubmed/21131864

MUSCLE BUILDING 101



MUSCLE BUILDING 101



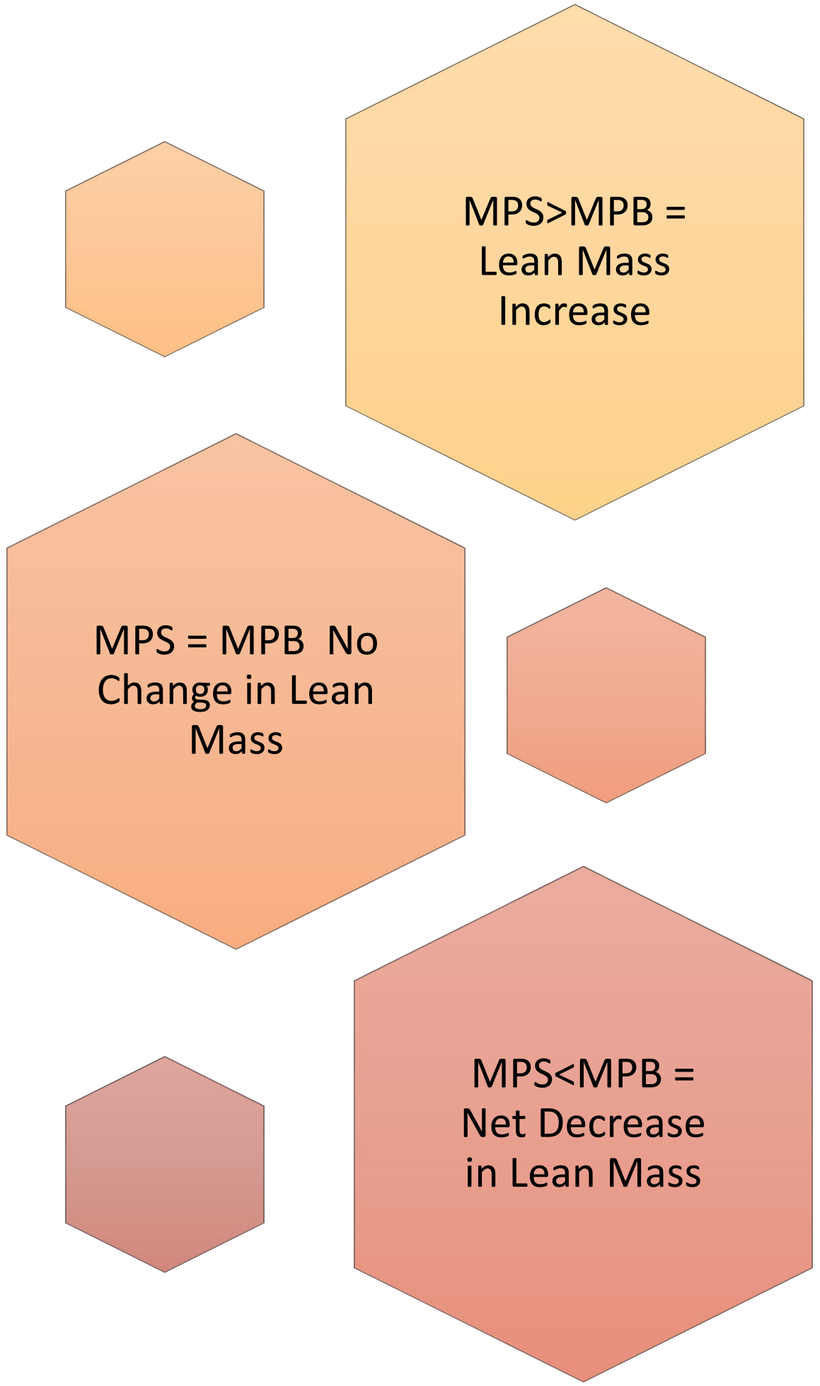
MUSCLE BUILDING 101

- There are two competing processes that go into what ultimately happens to muscle mass which are **protein synthesis** and **protein breakdown**.

  - **Protein synthesis** is simply the act of attaching amino acids into one another and turning them them into proteins.

  - The competing process is **protein breakdown** which is the opposite.

MUSCLE BUILDING 101



Mechanism of insulin's anabolic effect on muscle: measurements of muscle protein synthesis and breakdown using aminoacyl-tRNA and other surrogate measures.

Chow LS, et al. Am J Physiol Endocrinol Metab. 2006.

Abstract

Despite being an anabolic hormone in skeletal muscle, insulin's anticatabolic mechanism in humans remains controversial, with contradictory reports showing either stimulation of muscle protein synthesis (MPS) or inhibition of muscle protein breakdown (MPB) by insulin.

CONCLUSIONS: Using AA-tRNA as the precursor pool, it is demonstrated that, in healthy humans in the post-absorptive state**, insulin does not stimulate muscle protein synthesis and confirmed that insulin achieves muscle protein anabolism by inhibition of muscle protein breakdown.**

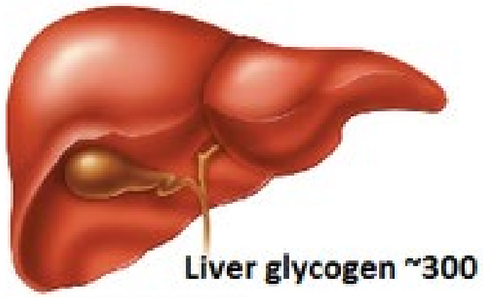
https://www.ncbi.nlm.nih.gov/m/pubmed/16705065/

INTAKE OF

- FAT
- PROTEIN
- CARBS

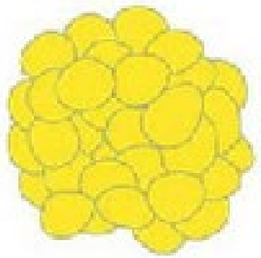
BUT WHAT ABOUT GLYCOGEN?

The body's 'fuel tanks'



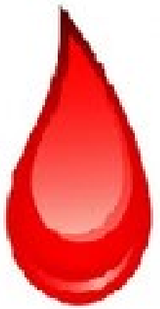
Liver glycogen ~300 kcal

Muscle Glygogen ~2000 kcal
Muscle triglyceride (fat) ~4000 kcal



Adipose tissue (fat) ~100000 kcal!

Blood glucose ~40kcal



BUT WHAT ABOUT GLYCOGEN?

- You have to perform an absurd amount of resistance volume to really deplete glycogen **stores with weight training.**
  - A full-body workout consisting of 9 exercises for 3 sets each at 80% 1RM only depletes about a third of the body's glycogen and 9 sets for a specific muscle result in 36% depletion in that muscle.
  - *Roy & Tarnopolsky, 1998*

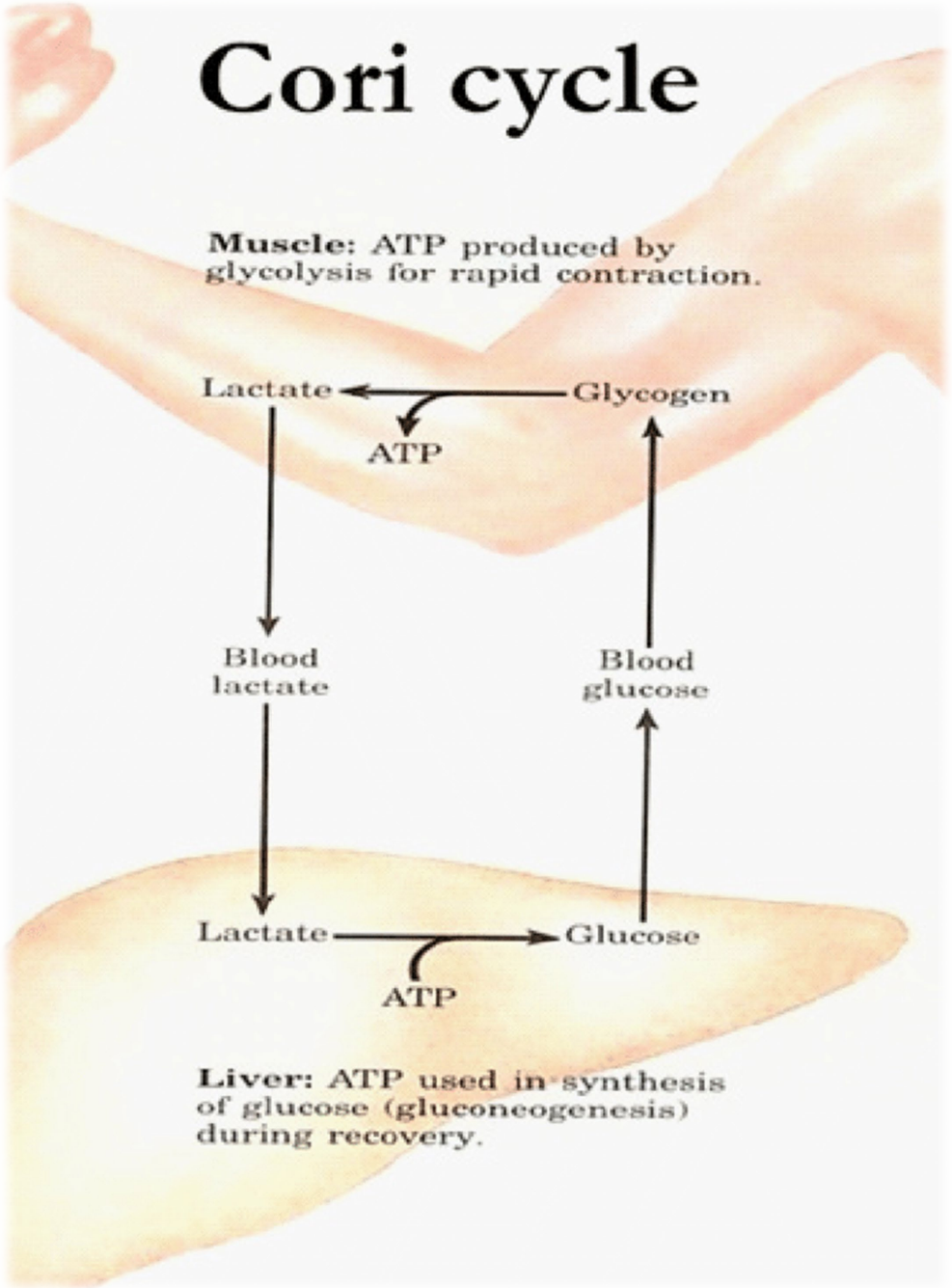
- After performing sets of 6 leg extensions at 70% 1RM until absolute failure and not consuming anything afterwards, 75% of glycogen was restored after 6h
  - *Pascoe et al. 1993*

- The body regulates itself adequately. The more you deplete glycogen, the faster the glycogen resynthesis.
  - The higher the intensity, the faster the resynthesis.
  - The greater the depletion, the more glycogen the body stores for next time.

- **Even in endurance athletes glycogen resynthesis is often complete within 24h.**

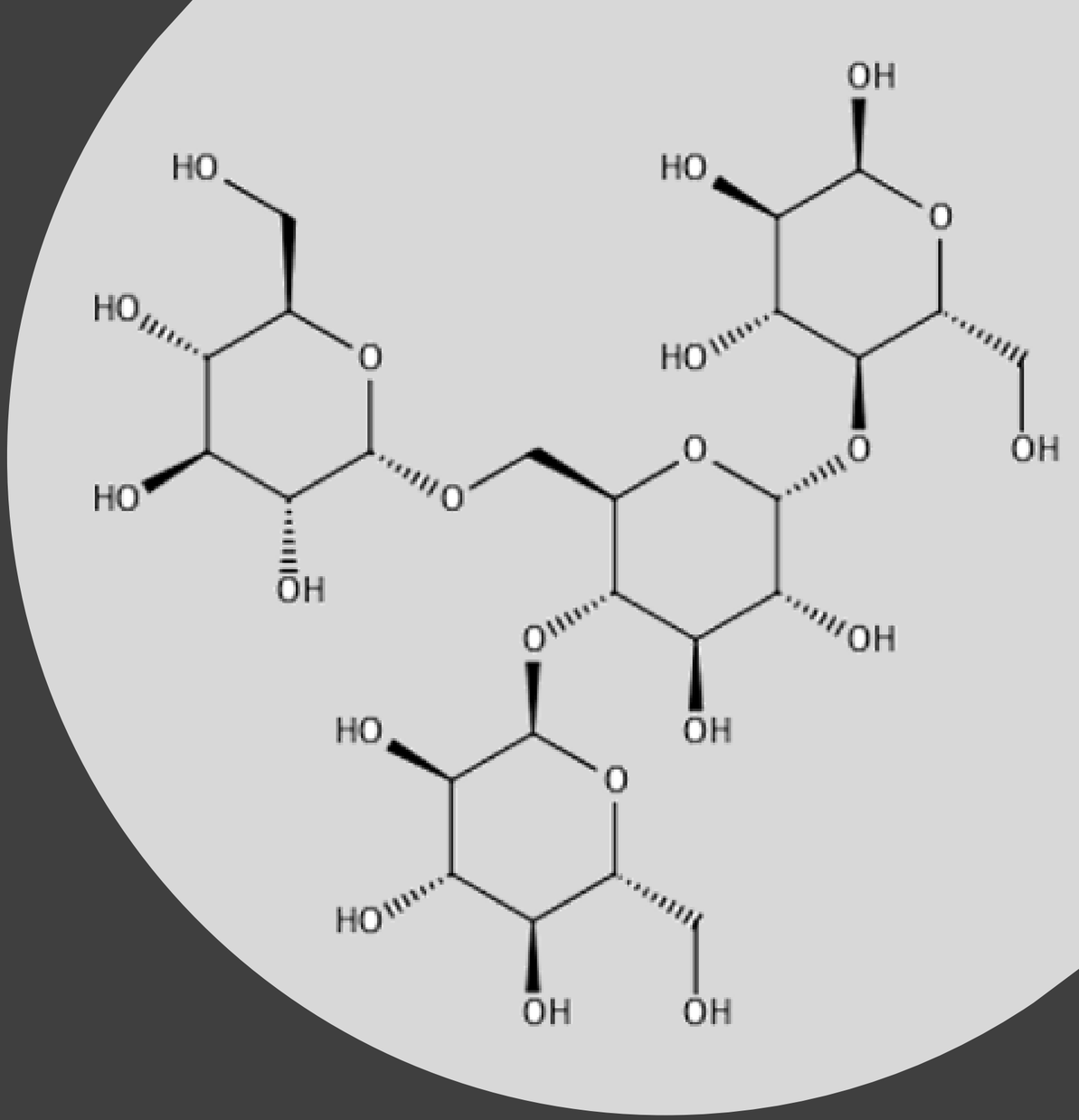
BUT WHAT ABOUT GLYCOGEN?

Glycogen depletion during strength training is modest and glycogen resynthesis is generally complete within 24 hours regardless of diet composition via the Cori Cylce.



BUT WHAT ABOUT GLYCOGEN?

- The glycerol backbone of the fats consumed or released can be converted to glucose. Though the contribution of glycerol to glucose production is normally modest, the body is capable of deriving a significant percentage of its glucose needs from glycerol and the limits of this have not been adequately tested.
- Ketogenic dieting with only ~22 grams of carbs a day has been found to have no impact on strength performance in international level gymnasts training an average 4.3 hours a day.
- Similarly, a ketogenic diet had no effect on strength performance in Taekwondo athletes training 5 hours a day, 6 days a week. “The daily plan of the program consisted of 1 h of low intensity dawn exercise; 2 h of morning exercise, mostly for physical strength improvement; and 2 h of afternoon exercise, mostly for Taekwondo skills training.” This was probably pushing the limits of non-glucose energy supply, <u>but it’s clear that low carb dieting is not the performance killer it’s often made out to be</u>.
- **So it is specifically highly anaerobic, high volume strength-endurance training that *may* be impaired during ketogenic dieting.**



THE CYCLICAL KETOGENIC DIET (CKD)

1

This popular variant is marketed as a way to get the benefits of keto without having to give up carbohydrates, but in our experience, it can leave you in a constant state of adaptation where you harvest some of the positive effects and most of the negative effects

2

CKD is prone to binge eating that may end up as an eating disorder.

3

A well-structured CKD may have benefits for insulin sensitive people and can be useful as a pre-contest tool for maximum glycogen supercompensation

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THE CYCLICAL KETOGENIC DIET (CKD)

Whole food, high glycemic / low glycemic carbs (rice, starches, some fruit) and protein, super low fat.

Processed food, combination of high Carb and High Fat, vegetable oils, sugars.

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THE TARGETED KETOGENIC DIET (TKD)

The Targeted Ketogenic Diet (TKD) is a nutrient timing strategy where most carbohydrates are consumed in pre / post-workout meals (or both).

This is an effective method to increase the intake of carbohydrates during a ketogenic diet at a given level of ketosis, with the purpose of using carbohydrates as fuel (pre-workout) or storing them as glycogen (after training) and to potentially increase the performance of anaerobic exercise without removing the individual from ketosis.

THE TARGETED KETOGENIC DIET (TKD)

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PLACEBO / NOCEBO

- We cannot deny that **the belief** that one needs carbs pre/post workout to grow or recover is sufficient to cause differences in workout intensity and volume.

- Recovery and workout Intensity can also be achieved by proper electrolyte intake.

WHY AM I NOT BUILDING MUSCLE?

- Electrolyte Imbalances
- Inadequate Protein Intake
- Excesive Fasting & Inadequate Nutrient Timing
- Inadequate Training
- Inadequate Calories & Macros
- Inadequate Micros

ELECTROLYTES

ELECTROLYTES are NOT optional

and should be measured & tracked just like macros !

Sodium (Na) 5,000-7,000mg / day

Sodium amount is in addition to dietary sources.
Supplement: Salt 13-18g / day (1g Salt = 388mg Na)
Increasing sodium intake in 1-2 g increments might be necessary when living in warmer climates, during hot summer weather, doing strenous activities, sweating, consuming alcohol, and/or drinking above average amounts of liquids.

Magnesium (Mg) 300-500mg / day

Magnesium amount is in addition to dietary sources such as spinach, chicken, beef, fish, nuts, seeds, raw cacao, okra and avocado.
Supplement: Magnesium Citrate, Magnesium Malate or Magnesium Glycinate
DO NOT USE Magnesium Oxide as it is poorly absorbed and will give you diarrhea !!!

Potassium (K) 1,000-3,500mg / day

Potassium supplmentation is NOT NEEDED when whole food K rich dietary sources such as fish, meat, leafy greens, winter squash, green beans, mushrooms, avocado, raw cacao and nuts are consumed regularly.
Optional Supplements: Potassium Chloride or Potassium Citrate Powder
Potassium Chloride 2-7g / day (1g NoSalt / NuSalt ~ 500mg K)
Potassium Citrate 3-10g / day (1g Potassium Citrate = 360mg K)

Please note this is general electrolyte guidance. See our FAQ Wiki for additional information.

WARNING: Failure to consume electrolytes per these guidelines beginning Day 1 of a Ketogenic Diet is the cause of most problems and issues as our bodies do NOT store/reuse electrolytes when carbs are not consumed.
Typical symptoms associated with low electrolytes are tiredness, weakness, low strength, low stamina, lethargy, moodiness, irritability, headache, cramping, heart arrythmia, dizziness and/or lightheadedness.

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OPTIMAL HEALTH & BODY RECOMPOSITION

Fasted Training

SuppVersity added a new photo to the album: October 2018.
October 19 at 7:07 AM ·

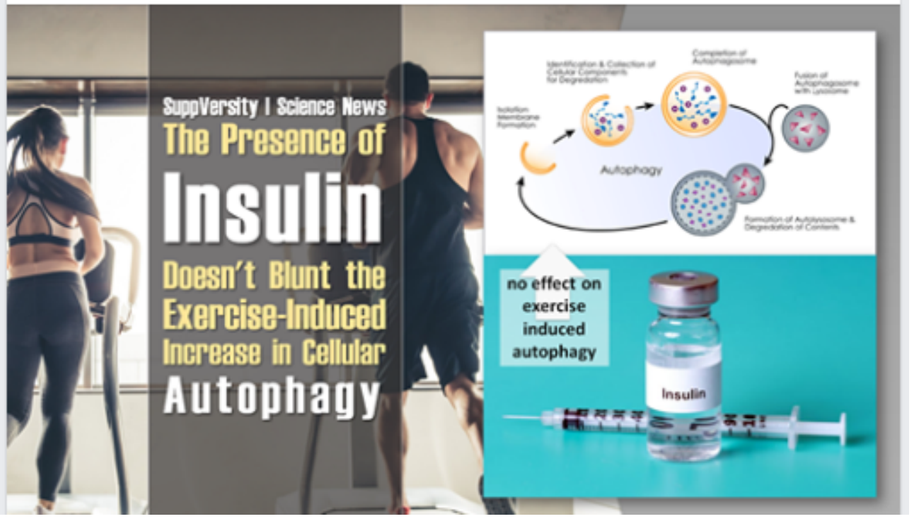
The Presence of #Insulin Doesn't Blunt the #ExerciseInduced Increase in Cellular #Autophagy - No Low-Carbing or Fasting Necessary!

Note: This doesn't mean that fasting and keeping an eye on insulin was no longer healthy, but it does add to the evidence that fasted exercise is not the key to health and happiness 😎

More specifically, the recent study from the Aarhus University shows that " [a]utophagy signaling is regulated in a hierarchical order by exercise, insulin, and counterregulatory hormones. Exercise-induced autophagy signaling is stimulated by local factors in skeletal muscle rather than circulatory hormones".

Practically speaking this means you don't have to go keto (or low carb), or fast if you want to upregulate your body's own clean-up and repair mode with exercise.

suppversity.com | https://www.physiology.org/.../10.1152/japplphysiol.00490.2018



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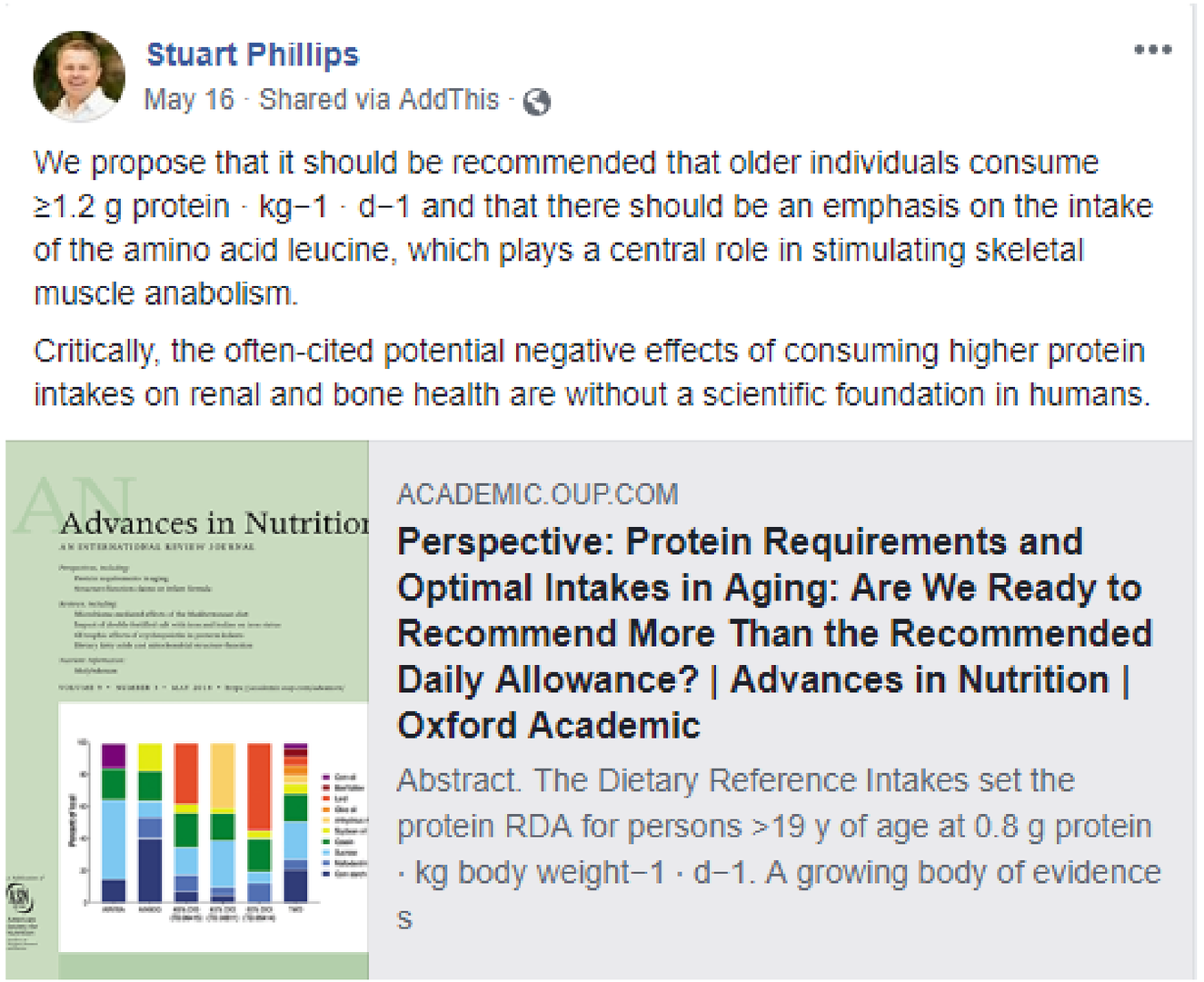
Protein intake



https://academic.oup.com/advances/article-abstract/9/3/171/4964951?fbclid=IwAR0guzf4N0uxNDPEq9EyTDKyIokUiL_nyUgBZ-68PR4bx1ESSVKWACZdqfQ#.WvwY3LnQICc.facebook

WHY USE KETO TO BUILD MUSCLE

- Improved adherence
- Food preference
- Health (less inflamation, hormonal improvements)

TAKEAWAYS

- One of the main benefits of a high fat diet is the increased anabolic hormone production.
  - This effect is stronger in strength trainees than sedentary individuals, likely due to the higher activity of these hormones.
- Keto diets seem to be particularly effective at reducing chronic inflammation, which may increase muscle growth via a clearer inflammatory signal for muscle repair, especially in overweight individuals.
- Strength training may interact with the altered amino acid metabolism during ketosis.

TAKEAWAYS

- Any protein sparing effect of ketosis will be extra beneficial during strength training, since protein turnover is higher when exercising.
- Exercise may benefit from the increased production of adrenaline and noradrenaline.

TAKEAWAYS

- Given sufficient dietary protein to maximize plasma hyperaminoacidemia and the anabolic response to exercise, and consistent resistance training with the right level of intensity and appropriate recovery, supplemental carbohydrate does not seem to be a requirement for the average person to build an appreciable amount of muscle.

- Exercise, itself, as a means of initiating the mTORC1 cascade and other cellular anabolic signaling pathways is likely the single most important stimulus for promoting skeletal muscle cell protein synthesis, independent of any other factor, including carbohydrate consumption and insulin secretion.

TAKEAWAYS

- Genetics arguably plays the biggest role in determining whether or not your muscle tissue will grow substantially. It is highly doubtful, that extra carbs will really be your edge.

- If there did happen to be some advantage of higher carbohydrate, hyperinsulinemic diets, over very low carbohydrate diets, with respect to building muscle mass, it is probably so small as to be negligible (in natural trainees).

- Carbohydrate-restricted diets higher in fat may have other anabolic benefits, distinct from insulin, like increased total and free-testosterone.

A 6 WEEK MUSCLE BUILDING PROGRAM BY
KETOGAINS
OPTIMAL HEALTH & BODY RECOMPOSITION

YOUR MUSCLES ARE YOUR HEALTH PENSION FOR WHEN YOU AGE.

BUILD AS MUCH MUSCLE AS YOU CAN WHEN YOUNG, SO YOU CAN BE FULLY FUNCTIONAL AND HEALTHY WHEN OLD.

-DARTHLUIGGI-

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FINDING YOUR OPTIMAL PROTEIN INTAKE FOR KETOSIS

Luis Villasenor,

SFN, Elite Trainer & Coach

PROTEIN INTAKE AND KETOSIS

- Although carbohydrate intake is arguably the most important aspect of successfully inducing ketosis, protein intake **is extremely important in order to prevent muscle loss.**
- While an easy solution is to simply eat as much protein as possible, there is the belief that "too much protein" may prevent ketosis as well, disrupting the adaptations which ketogenic dieters seek.
- Protein has **both ketogenic effects (46%) and anti-ketogenic effects (58%).** This reflects the findings that around 58% of dietary protein **may** appear in the bloodstream as glucose, raising insulin and inhibiting ketogenesis, yet Protein also stimulates glucagon release and has some pro-ketogenic effects.
- Although there are no hard and fast rules for how much protein can inhibit ketosis, some individuals have reported trouble maintaining ketosis if they consume too much protein per day, or even excessive amounts of protein at a given meal.

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PROTEIN INTAKE AND KETOSIS

- **To the contrary, some individuals have eaten 1.2 grams protein/lb or higher and had no problems establishing and maintaining ketosis.**
- This may be related to the glycogen depletion caused by weight training. In a depleted state, incoming carbohydrate is used to refill muscle glycogen before it is used to refill liver glycogen.
- In essence, the depletion of muscle glycogen seems to provide a ‘sink’ for excess glucose produced from dietary protein or carbohydrate intake.

PROTEIN AND GNG

- Gluconeogenesis is a slow process and the rate doesn't change much even under a wide range of conditions. The hypothesis that the rate of gluconeogenesis is primarily regulated by the amount of available material, e.g. amino acids, has not been supported by experiment. Having insufficient material available for gluconeogenesis will obviously limit the rate, but in the experiments we reviewed, having excess material did not increase the rate. We haven't found any solid evidence to support the idea that excess protein is turned into glucose. More experiments are needed to confirm that this still holds true in keto dieters.
- Ketotic.org: "If you eat excess protein, does it turn into excess glucose?"

PROTEIN AND GNG

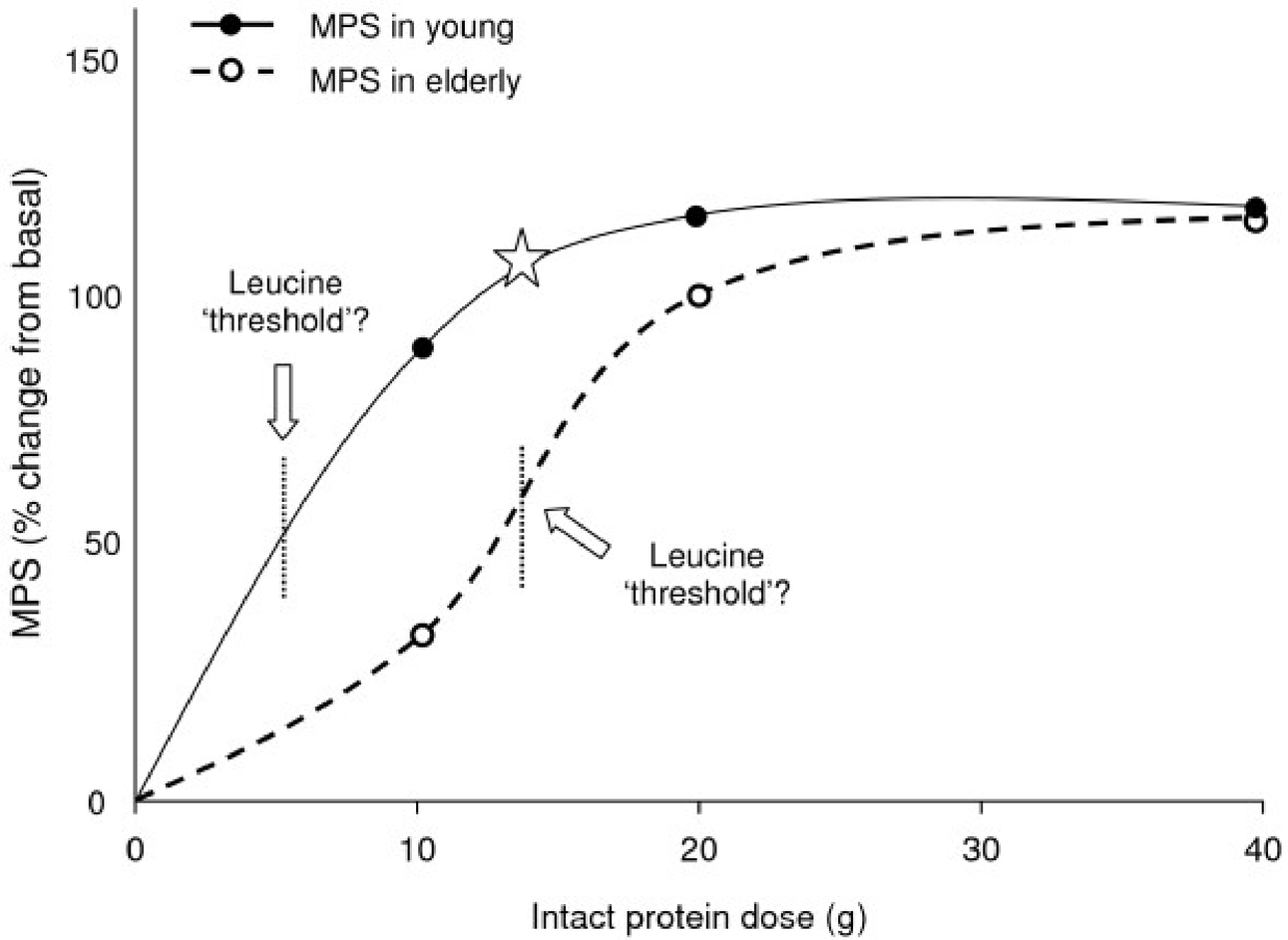
- *Dietary protein-derived amino acids have a purpose, and that purpose is not carbs.*
- At a reasonable level of dietary intake, protein is used for the maintenance of organs & tissues. Lean body mass. It's functional. Protein isn't stored in any appreciable capacity, and most excess is either oxidized or stored as glycogen. Theoretically, about 50-60% of protein-derived amino acids can be converted into glucose, mathematically, but it's not what you think… Some of the dietary protein-derived amino acids were used for protein synthesis, others were oxidized. But blood glucose levels did not change. Nor did the rate of gluconeogenesis. ... Glucagon was secreted but the rate of gluconeogenesis did not change (GNG is demand, not supply driven).
- Caloriesproper.com: "Dietary protein does not negatively impact blood glucose control"

SUGGESTED PROTEIN INTAKES:

- The suggested protein intake is context dependent and should be set according to lean body mass and activity / exercise levels:
  - Sedentary people: 0.69 to 0.8g per lean pound
  - Mildly active or doing endurance / strength training: 0.8 to 1.0g per lean pound
  - Heavy strength training / bodybuilders / PSMF: +1.0 up to 1.2g per lean pound
  - Going over 1.2g per lean pound has no benefits for muscle building, but may be considered for extra TEF, satiety, diet adherence.
  - The elderly may find benefit of using a higher protein diet due age induced leucine resistance.

The Leucine Curve

- Breen, Leigh & Phillips, Stuart. (2011). Skeletal muscle protein metabolism in the elderly: Interventions to counteract the 'anabolic resistance' of ageing. Nutrition & metabolism. 8. 68. 10.1186/1743-7075-8-68.



IT IS IMPORTANT TO MAINTAIN MUSCLE AS WE AGE

- Muscle plays a central role in whole-body protein metabolism by serving as the principal reservoir for amino acids to maintain protein synthesis in vital tissues and organs in the absence of amino acid absorption from the gut and by providing hepatic gluconeogenic precursors. Furthermore, altered muscle metabolism plays a key role in the genesis, and therefore the prevention, of many common pathologic conditions and chronic diseases.
  - Maintenance of the protein content of certain tissues and organs
  - Help recover from critical illness and chronic disease
  - Helps to combat obesity
  - Improves insulin sensitivity - Diabetes
  - Osteoporosis

https://academic.oup.com/ajcn/article/84/3/475/4648841

HOW DO I CALCULATE MY “MAXIMUM” PROTEIN INTAKE AS TO NOT INHIBIT KETOSIS?

“Chase results, not ketones”

Supposing protein “may” be converted to glucose with ~60% efficiency;

- Find your suggested protein intake (SPI);
- Any extra protein ingested OVER your SPI, multiply by .60
- Count that number towards your daily carb intake.

CALCULATING PROTEIN INTAKE:

- Example:
- 176 lb total weight
- 10% BF
- 158.4 lb lean mass
- 1.0g / lean lb = 158g DPI

- Supposing a total protein consumption of 200g protein;
- 200 – 158 = 42 * 0.6 = 25.2
- Add 25.2 to your total carbohydrate consumption for the day

The

KETOGAINS

CHASE RESULTS NOT KETONES®

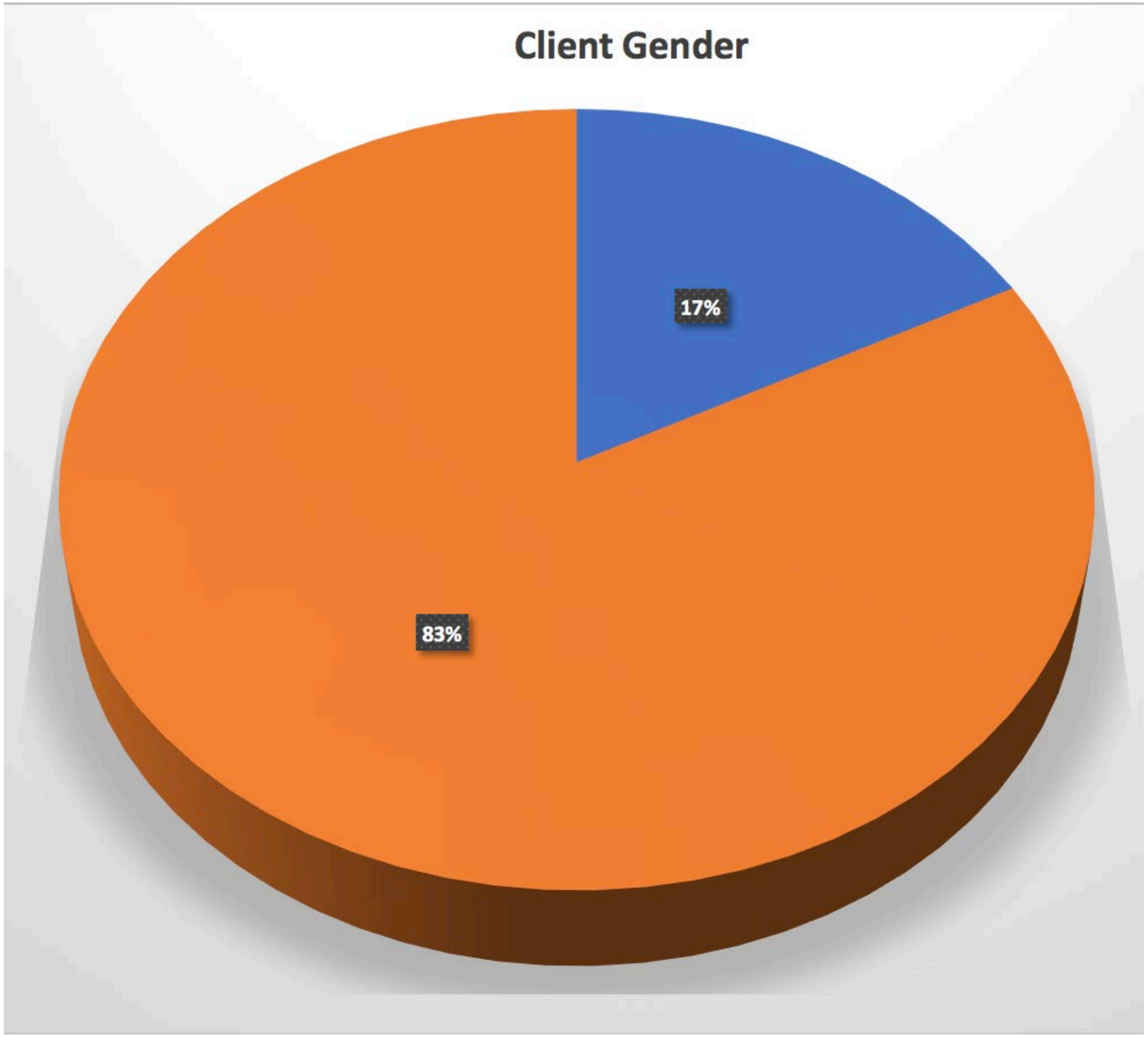
Protocol

Summary of results of the Ketogains Protocol over 30 months

- +1000 Unique Bootcamp Clients with the goal of “Recomposition” or “Body Fat Loss.
- Average Time in Program 6-Months
  - 30,758 Pounds Lost
  - 21,415 Inches Lost (9-point measurement)
  - Average Body Fat Reduction of 11.23% (using the Navy BF%)
  - Reduction in DEXA-confirmed VAT of 67% after minimum of 14 weeks in program.
  - Average HbA1c reduction 9.4 -> 5.2 (23 data points provided, minimum 9 months)

KETOGAINS
CHASE RESULTS NOT KETONES

Client Gender



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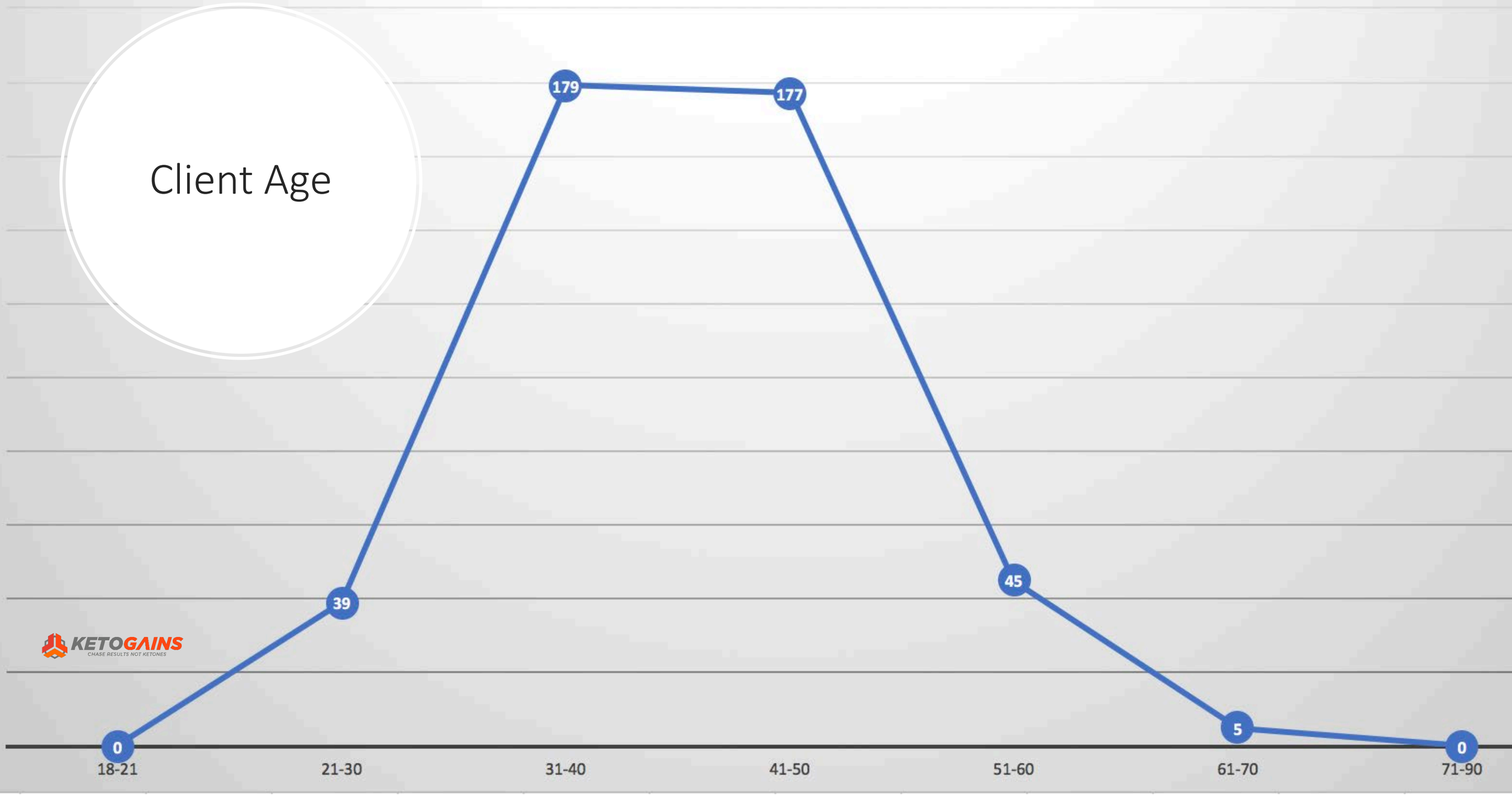
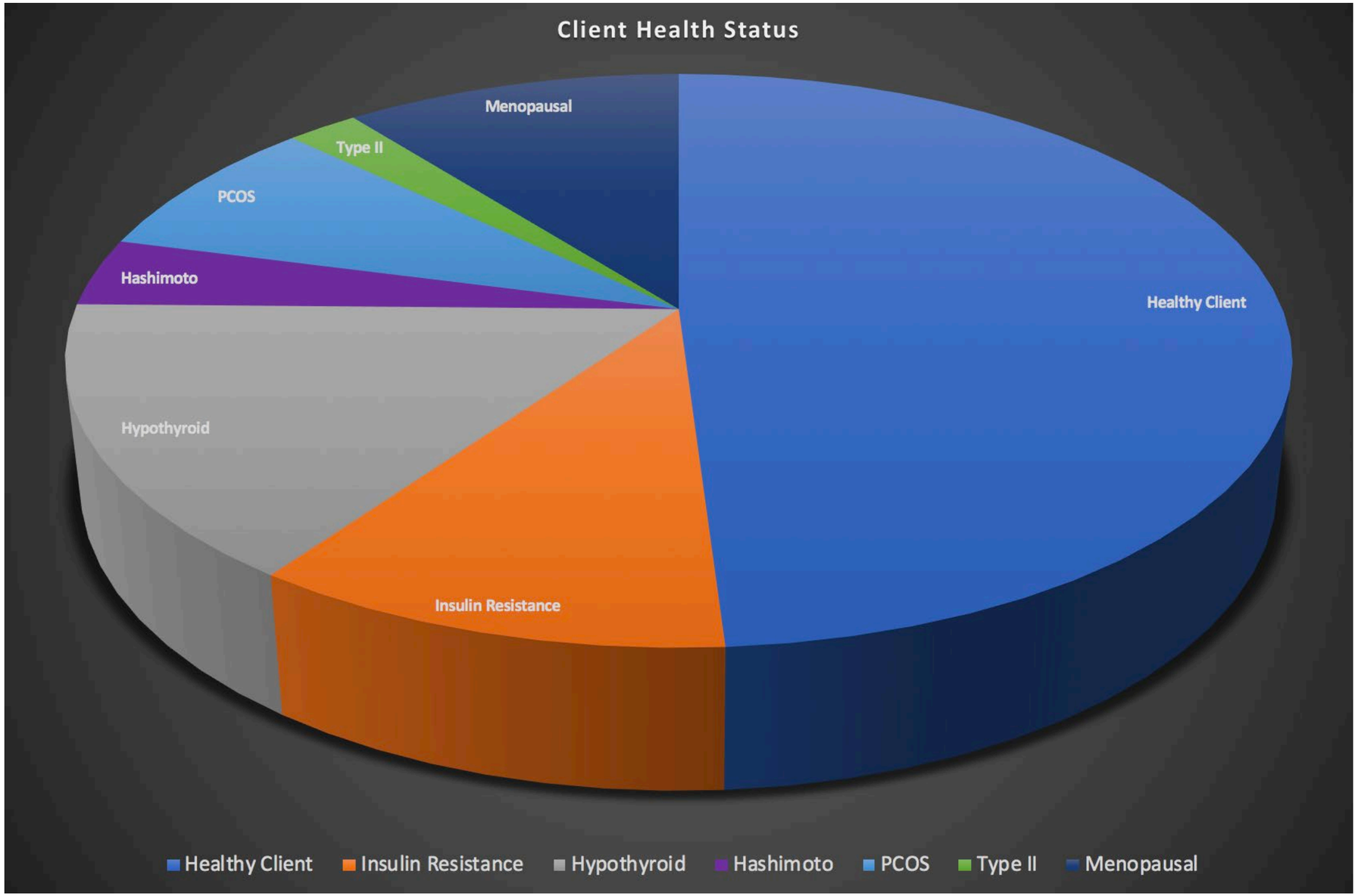
CHASE RESULTS NOT KETONES

Client Age

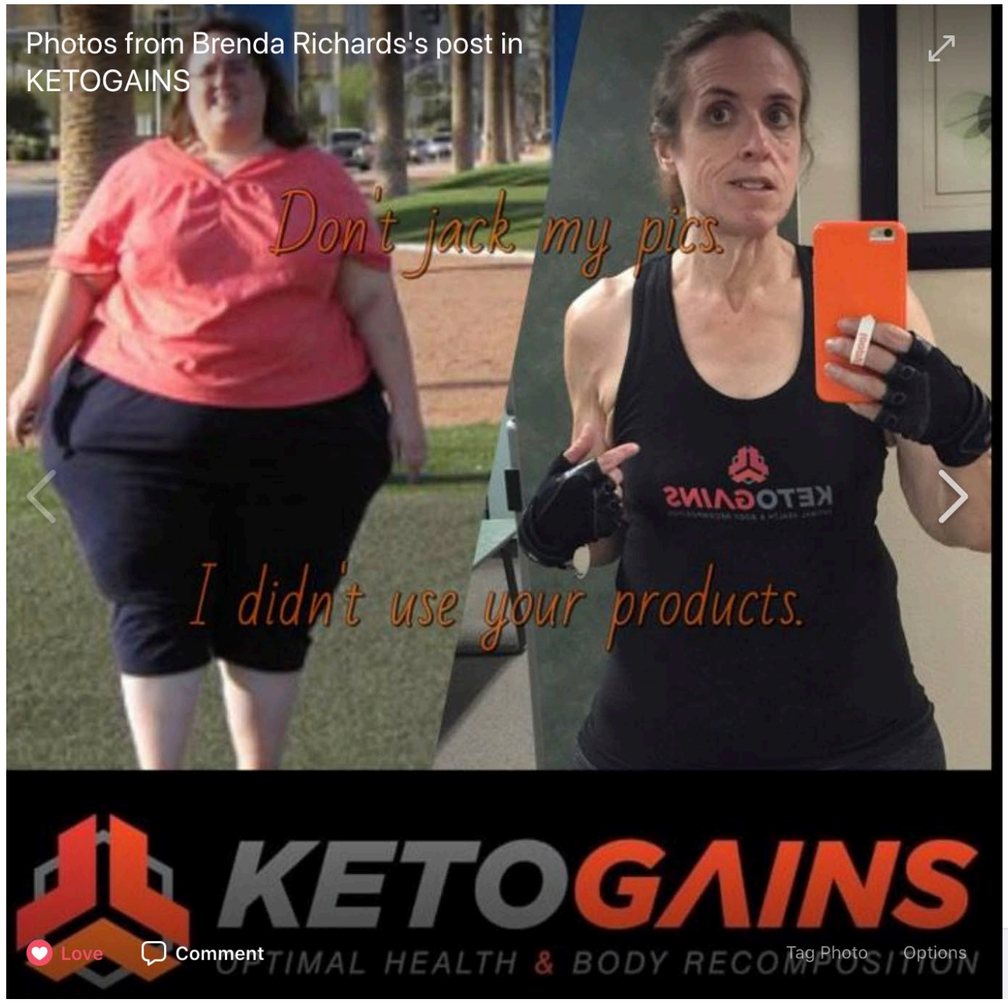


KETOGAINS
CHASE RESULTS NOT KETONES

Client Health Conditions



Client 1 – 3 years of training, Post-RNY Gastric Bypass



Brenda Richards ▶ **KETOGAINS**
Admin · September 12, 2017 ·

#TransformationTuesday
Spring 2009 to September 2017

My size has changed definitely. There is a difference shown of approximately 250 pounds due to WLS in 2010 and starting both keto and KG boot camps in 2016. Of the ~250 pounds lost, 132 pounds have been shed since I went keto in April 2016 through meeting my macros just like each of you, working my ass off (literally) in the gym lifting, and following my coaches' programming.

There is far more than weight loss going on in this transformation photo. I've gained so much. I can walk up a flight of stairs (or several) without getting winded. I can sit in any chair and not be fearful. I can ride in any airplane seat and not ask for an extender. I can catch a glimpse of my reflection in a store window and not be mortified. I can show up at the gym, feel comfortable, and confident....even if I'm learning something new.

Finally, the woman on the left was scared to death. She lacked confidence. She would walk by children only to hear them whisper and giggle. The woman on the right has been empowered to make so many changes in her life and is confident in her own skin (and yes, there's extra...LOL) to the point that she is willing to share her story with 80,000+ strangers in hopes of motivating one to take the first step to start the diet and risk stepping into the gym.

Write a comment...

Client 2 – 1 year training with Ketogains, No surgical intervention

KETOGAINS
CHASE RESULTS NOT KETONES

Client 3 – 24 weeks with Ketogains, No surgical intervention

Pictures on the bottom are from the beginning of my second BC (and I honestly thought they were older than that!) Middle pics are beginning of third BC. Top pics are from 5 minutes ago.

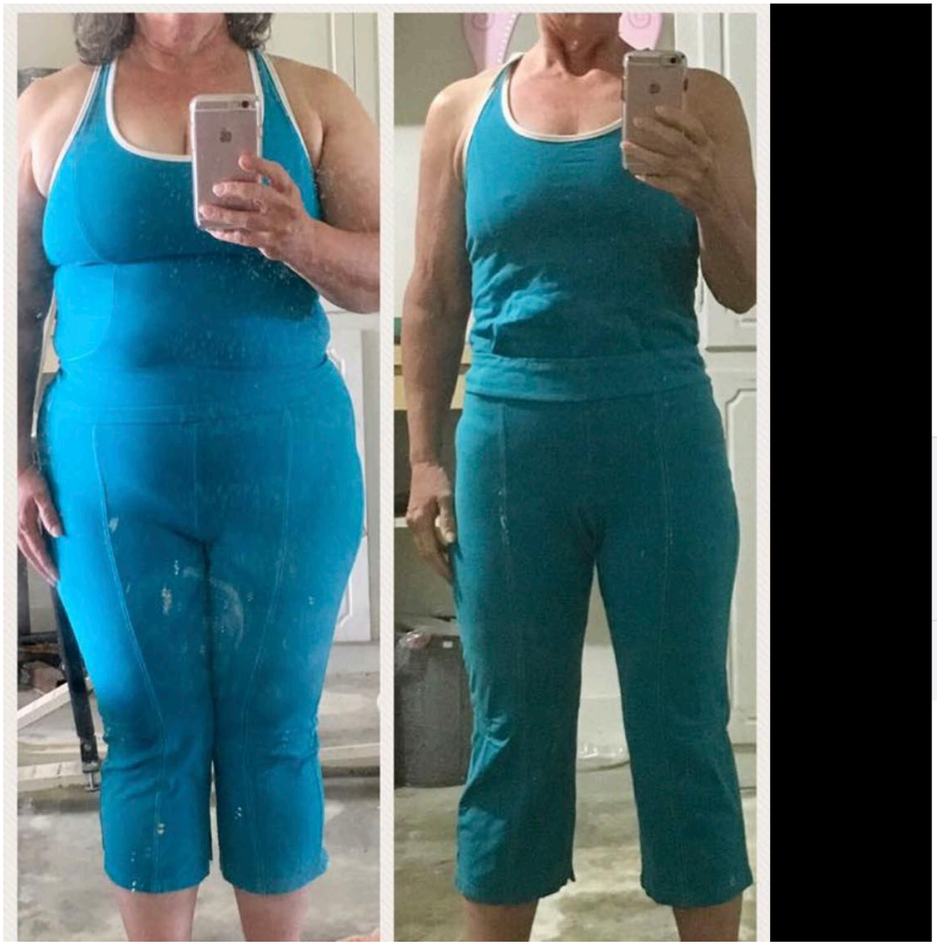
That bathing suit I'm wearing on the bottom set? Size 22-24. Today I'm wearing size 14 jeans and a large shirt that I just bought a few days ago at the animal sanctuary I visited. I'd asked for XL, but they were out. Only had large left. I took it figuring I'd "be small enough soon". Turns out, I'm small enough now.

Y'all, don't wait. BC isn't magical. It only works if you do, but it's so much easier to make so much more progress.

Join bootcamp today. Get plugged in with the group. Do the work. You CAN do this. Yes, even you with your busy schedule. Yes, even you that can hardly walk up the stairs. Yes, even you that has tried all the diets known to mankind and yo-yoed up & down.

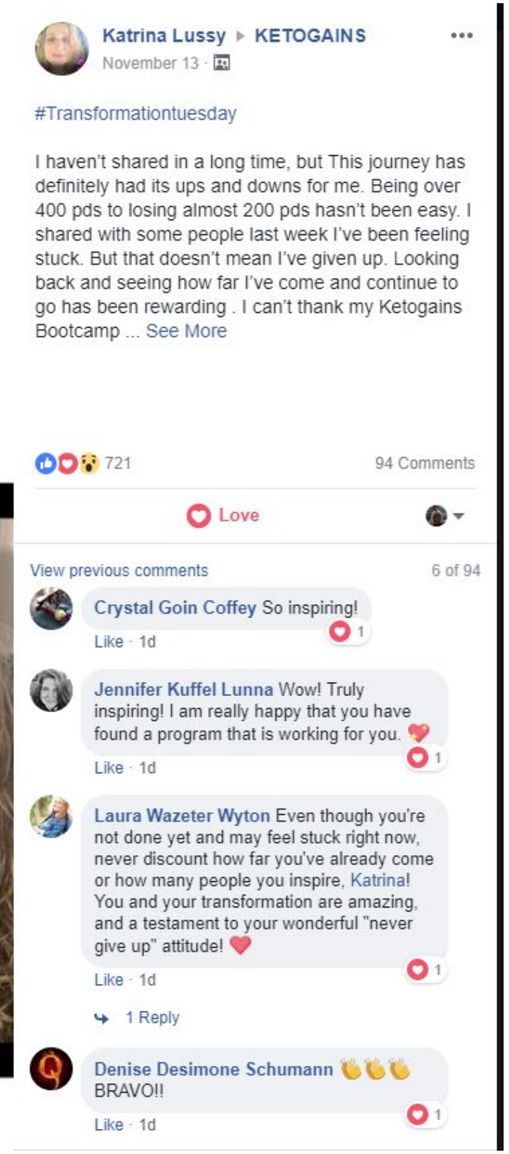
You can do it. Just take the leap.

Client 4 – 1 Year training with Ketogains, No Surgical intervention

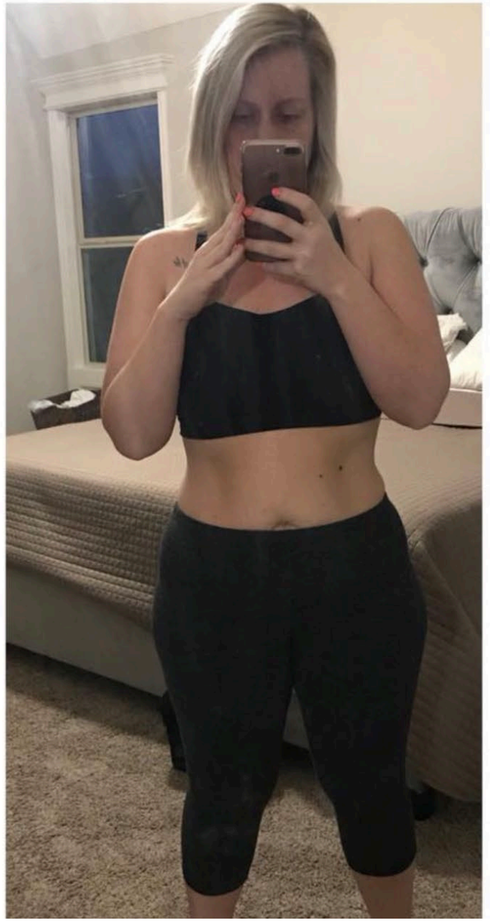


Client 5 – 3 Years training with Ketogains in alignment with healthcare team

Mich



Client 6 – Began training after losing significant weight via a Ketogenic diet



Machaela Miller
April 7 · Edited

I don't even know where to start as to what ONE bootcamp has done for me. Breaking vicious cycles of bad habits and decisions for one. That's probably the most life changing thing for me.

I've already been keto for over 2.5 years now so I'm accustomed to this diet. I'd already lost the majority of the weight I wanted to lose (from 253 to 167 at my lowest). So I stopped tracking and just made "good keto decisions" and never tracked. I'd do well with my eating for a week or two and then I'd go off the rails for a day to 5 days. Get back on track. Repeat. We'll eventually that cycle packed 24 pounds back on.

Insert bootcamp. Bootcamp was the kick in the ass that I needed. As a mom of 2, a wife, a full time Asset Manager, and a full time student (getting my MBA), I needed to do something for ME. Not just for my health or to get fit. But to prove that I could put myself first and that no one would die. And to prove to myself that I can finish something I set out to do and I'll come out of the other side a better person.

Bootcamp has helped me look at food as a means to an end (aka goal) and as a way to get closer to that goal or further away.

I am now down almost 15lbs now and over 16 inches and at least 5% body fat

Client 7 – in 6 weeks we did more than 1 year with a trainer!

KETOGAINS
CHASE RESULTS NOT KETONES

Client 8 – Training with Ketogains for 6 months.

Ann's Tonya
April 7 · Edited

I am 45 years old. Mother of 3 bio kids and caregiver/adopted mom to nearly a dozen more. I have always taken care of others before myself, including a close family friend with terminal cancer. That was a 15 month losing battle, but I fought right beside him until his family took him home six weeks before he lost the war.
My love language is service, it's how I show that I care. No one was ever there for me, so I strive to be there for everyone else.

In August of last year, my weight was 232 pounds at only 5'6". My doctor had me on statins, I was diagnosed with a heart condition, and my A1c was at 5.8.
My energy was non-existent, my skin was broken out, and my size XL "active wear" was literally popping at the seams.

The night of and morning after my 45th birthday party, I felt awful, for hours. 17 hours after I had last eaten I decided to check my blood sugars they were at 240!!! Seventeen hours fasting...I can only assume they were 4-500 the night before.

I immediately had eggs and bacon for breakfast and began my research. Carbs were killing me and I needed to know more about how to live without them.

I found a bunch of high fat moderate protein pages and learned to keto-fy many things. But health

Write a reply...

Left pictures are October 30, 2017, Bootcamp #1. Right are March 24, 2018, near the end of Bootcamp #3.

Starting weight: 232, size XL miserable, dying and afraid.
Current weight: 183, size MEDIUM, happy, living and fearless!!!

KETOGAINS
CHASE RESULTS NOT KETONES

Client 9 – 6 months training with Ketogains, no surgical intervention

Michael Franklin
April 7

I don't think I came put into words the happiness I feel to finally be comfortable in my own skin. I feel amazing! The picture on the left is from July 2017. You can't really tell by my eyes, but I was just miserable. I had resigned myself to being overweight and that was just how my story was going to end. Overweight and stuck wearing "dad" clothes forever. I started Keto in October, did it totally wrong until November when I found ketogains. The picture on the right is from Feb 2018 after my 1st bootcamp. I'm now going into bootcamp #3 38lbs lighter, from a size 36 waist down to a 30. The sense of confidence I feel in myself has grown beyond measure. I am 51 and I feel like bootcamp has given me my life back. Never going back to whay I was before. Now I have discipline!

Like Comment

Lisa Bemis Hardy, Katrina Lussy and 11 others

Write a reply...

KETOGAINS
CHASE RESULTS NOT KETONES

Client 10 – 5 Bootcamps, gaining muscle and losing fat at 55

KETOGAINS
CHASE RESULTS NOT KETONES

Client 11 – from 309 to 135 lbs and 14% BF (DEXA)

Michelle Frilot
Conversation Starter · October 19 at 8:10 PM · Add Topics

Happy #flexfriday, Everyone! I just finished Week 6 workouts for my second Ketogains Bootcamp! And just like my first Bootcamp, I didn't miss one workout, one lift, or even a single kettlebell swing!

Because I've posted about it before, most of you know my story, my journey from 309# to 135# at 14% BF. Today, I want to remember and share again WHY I'm participating in Bootcamps because it's important for me to continue to bow to it privately and publicly:

To turn my 20-year-old daughter Hannah's life and death into a healing gift for myself and others by experiencing and writing about optimal health in a lifestyle based on wise habits and personal integrity.

If I have inspired you to sign up for the next Bootcamp on the 29th, I would appreciate your using my name as a referral so I can gift a free Bootcamp to my husband. We want to participate in this life-changing program together!

KETOGAINS
CHASE RESULTS NOT KETONES

KETOGAINS
7 mins ·

Keto gains! Love this shirt. 360 lbs started. Currently 185 lbs — feeling proud.

Like · Comment · Share

You, Mike Haynes, Shelly Lorenz Hite and 17 others

That's my buddy!!! Making gainz!
Like · Reply · 6 mins

credible, life altering accomplishment!
Like · Reply · 1 · 4 mins

reat job!!
Like · Reply · Just now

Luis Villasenor Looking awesome my man!!!
Like · Reply · Just now

Write a comment...

See All

Ad

KETOGAINS
13 mins ·

I don't usually post these kinds of pics here b/c this page is so....muscular. Lol I throw up gym pics from time to time.
But today I wanted to share this with you b/c I am so much part of this lifestyle. These pictures are a year apart. All the weight loss is from following the Ketogenic Diet.
But in January I made the decision to work with Luis Villasenor, personally. I had seen a few of his successful clients but I also saw how knowledgeable he was. When I looked into his program and saw the extent of what he was offering, I knew it was time to take this just ONE step further. Meal planning being #1, as I have always felt like I had gone back and forth with it. (Lazy Keto)
To date, I have logged in all my meals January 4, 2016. The longest stretch since I started. But not only that. Lifting weights and having him encourage and support me and answering ALL of my questions led me to his boot camp where I began power lifting for the first time in my life.

Not only am I seeing progress, but I have gained more control over my food addiction and my mental strength than I have in the whole 19 months since starting my weight loss journey. I feel powerful. For the first time in my entire life, I feel like I have my life back. And as I embark on a new journey to compete in the WBFF Transformation Division in June 2016, I am please to say that I have more confidence now that I have gone through his program, than I have in a very long time. Still a little afraid. But I am ready for the challenge!

Bring on the GAINS!

Like · Comment · Share

25

You look amazing! Thank you for

RESULTS

KETOGAINS
CHASE RESULTS NOT KETONES

try it out! The coaches are great. And we had a great support system! Macros 115/80/20. 🍗🍗🍳🍳

#transformationtuesday

You, [redacted] and 581 others 29 Comments

RESULTS

KETOGAINS
CHASE RESULTS NOT KETONES

1.6K 112 Comments

RESULTS

KETOGAINS
CHASE RESULTS NOT KETONES

SO thankful for Ketogains Bootcamp!!!
My heaviest of almost 150# at 5'5" est ~40% fat.
My current 110# and 19% fat
First 20# with paleo. Last 20# and 12% bf with Ketogains!
(Turning 46, 2 kiddos and hashimotos!)

CHANC
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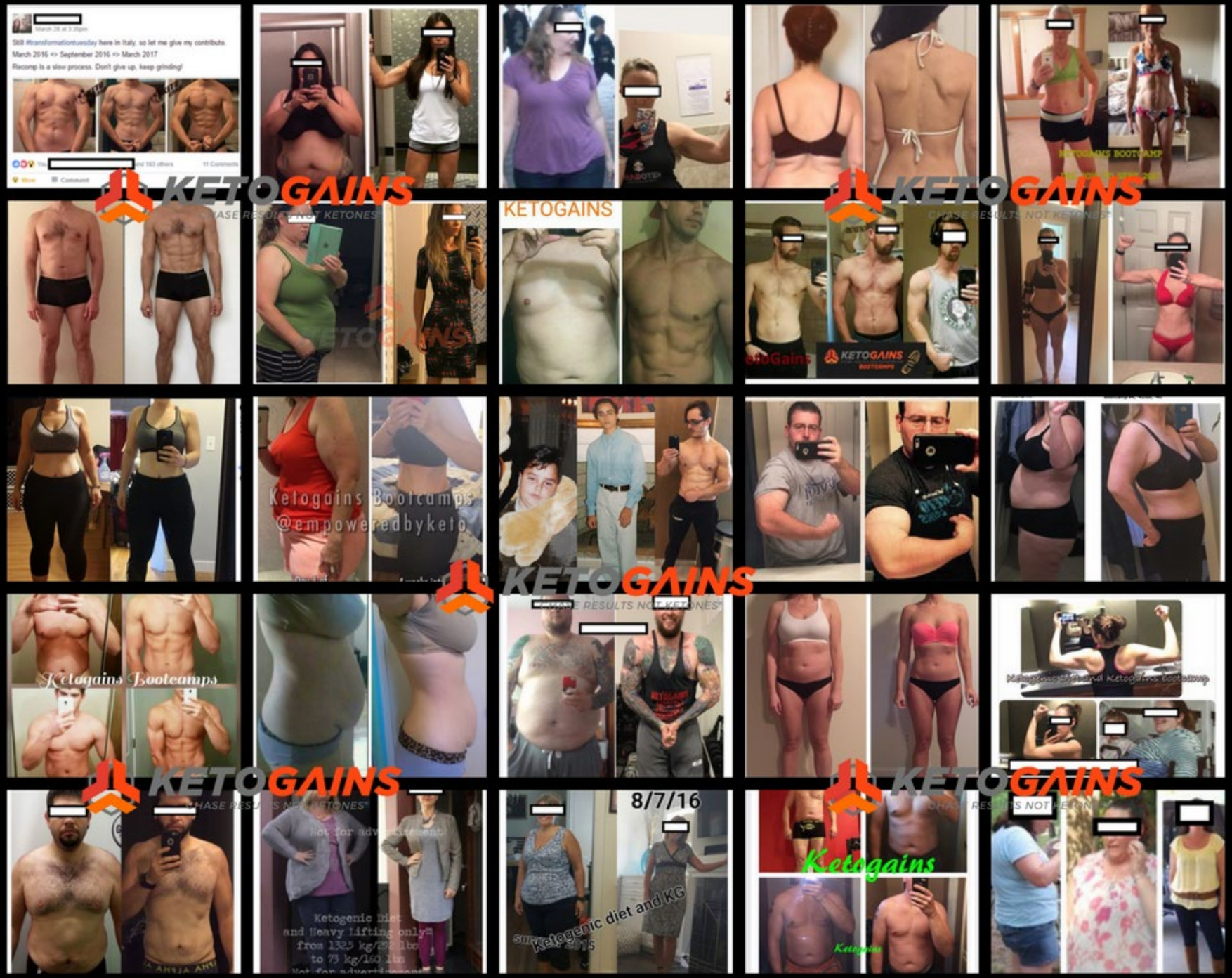
give up

You, Kevin Lail, Thor Grove and 252 others 13 Comments

RESULTS

KETOGAINS
CHASE RESULTS NOT KETONES



KETOGAINS
CHASE RESULTS NOT KETONES

And our very first two clients

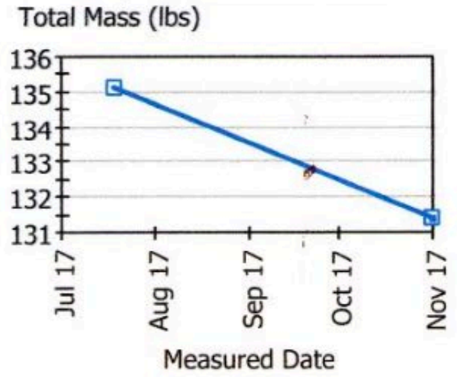
Client 1

- 43 Years
- Caucasian Female

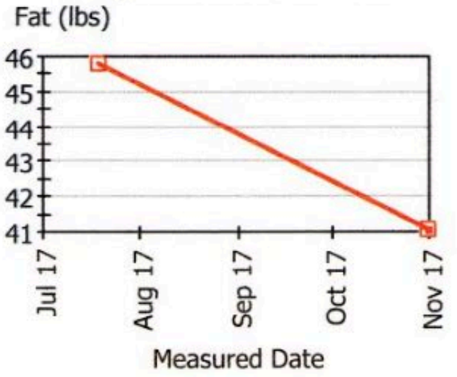
Body Composition History (Region: Total)

Measured Date	Total Mass (lbs)	Change vs. Baseline (lbs)	Change vs. Previous (lbs)	Fat Mass (lbs)	Change vs. Baseline (lbs)	Change vs. Previous (lbs)	Lean Mass (lbs)	Change vs. Baseline (lbs)	Change vs. Previous (lbs)
07/18/2017	**135.1**	baseline	-	**45.8**	baseline	-	**84.2**	baseline	-
10/31/2017	**131.4**	-3.7	-3.7	**41.1**	-4.7	-4.7	**85.2**	1.0	1.0

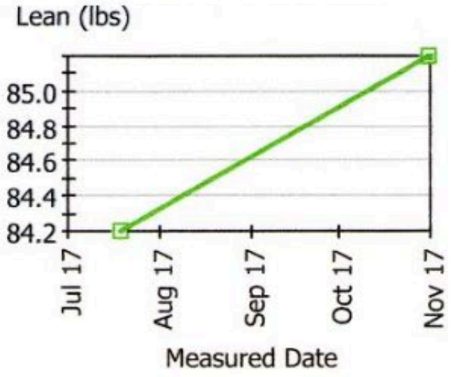
Composition Trend: Total



Composition Trend: Total



Composition Trend: Total



Client 2

- 40 Years
- Caucasian Female

Total Body Composition				
Measured Date	**Total Body Fat**	**Total Mass**	**Fat Tissue**	**Lean Tissue**
07/16/2018	21.1%	134.5 lbs	28.4 lbs	100.6 lbs
04/16/2018	24.9%	138.7 lbs	34.5 lbs	98.7 lbs

Client 3

- 46 Years
- Caucasian Female

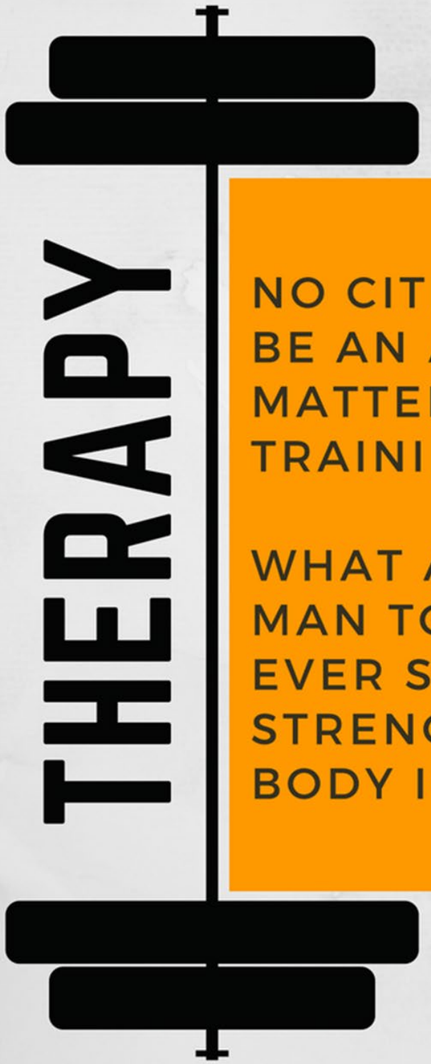
Total Body Composition				
Measured Date	**Total Body Fat**	**Total Mass**	**Fat Tissue**	**Lean Tissue**
06/05/2018	20.1%	118.3 lbs	23.7 lbs	89.8 lbs
03/20/2018	19.5%	117.0 lbs	22.8 lbs	89.4 lbs
01/05/2018	19.9%	117.7 lbs	23.5 lbs	89.4 lbs
12/06/2017	21.4%	116.7 lbs	24.9 lbs	86.8 lbs
09/11/2017	25.9%	124.5 lbs	32.2 lbs	87.3 lbs
06/08/2017	29.9%	127.1 lbs	36.5 lbs	85.5 lbs
03/04/2017	32.1%	132.0 lbs	40.7 lbs	86.1 lbs

Client 4

- 47 Years
- Caucasian Female

Measured Date	Total Body Fat %	Total Mass (lbs)	Fat Tissue (lbs)	Lean Tissue (lbs)	Bone Mineral Content (BMC)
07/14/2018	**23.8%**	**157.3**	**37.5**	**113.8**	**6.0**
06/03/2018	**24.2%**	**161.3**	**39.0**	**116.3**	**6.0**
03/28/2018	**22.9%**	**159.0**	**36.5**	**116.7**	**5.8**
...	**...**	**...**	**...**	**...**	**...**
10/24/2016	**30.9%**	**163.9**	**50.7**	**107.3**	**5.9**

A 6 WEEK MUSCLE BUILDING PROGRAM BY
KETOGAINS
OPTIMAL HEALTH & BODY RECOMPOSITION



NO CITIZEN HAS A RIGHT TO BE AN AMATEUR IN THE MATTER OF PHYSICAL TRAINING…

WHAT A DISGRACE IT IS FOR A MAN TO GROW OLD WITHOUT EVER SEEING THE BEAUTY AND STRENGTH OF WHICH HIS BODY IS CAPABLE

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THE LOW CARB UNIVERSE

BUILDING MUSCLE WHILE TRAVELING:

THE MINIMALIST APPROACH

Luis Villasenor,

SFN, Elite Trainer & Coach

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Disclosure Statement

The authors and presenters of this material assert and maintain that they have no affiliation with nor any conflicts of interest with any business, company, service, or product represented or presented in this presentation.

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WHO IS LUIS VILLASENOR?

Luis Villaseñor is the Founder of Ketogains

Experimenting with low carb / keto / whole food since 2001

Referred and cited by world renown experts in fitness and nutrition such as:

Robb Wolf (The Paleo Solution & Wired to Eat), Menno Henselmans (Bayesian Bodybuilding.com), Mark Sisson (Mark's Daily Apple, Primal Health), Danny Lennon (Sigma Nutrition), Kris Gunnars (Authority Nutrition), Dr. Ted Naiman, Kamal Patel (Examine.com); Sergio Espinar, Marcos Vazquez, among many more.

Credentials

- *Specialist in Fitness Nutrition (SFN) – International Sports Sciences Association (ISSA)*
- *Certified Fitness Trainer (CFT) – International Sports Sciences Association (ISSA)*
- *Fitness / Exercise Therapist (SET) – International Sports Sciences Association (ISSA)*
- *Corrective Exercise Specialist (SCE) – International Sports Sciences Association (ISSA)*
- *Specialist in Bodybuilding (SB) – International Sports Sciences Association (ISSA)*
- *Bayesian Bodybuilding Personal Training Certification & Spanish Course Main Host and Tutor*
- *CrossFit Level 1 Trainer (CF-L1 Trainer) – CrossFit*
- *Studying for the ISSA Sports Nutrition Certification (CSN)*
- *Studying for the MNU Nutritionist Certification*
- *Studying for the Primal Health Coach Certification*
- *Studying for the Kaatsu Certification Program*
- *Evolution Nutraceutical Company – Sponsored Athlete*
- *Bachelor in Business Administration & Marketing – Universidad Iberoamericana (MX)*

ADVANCED TRAINING TECHNIQUE: MYO-REPS

What is it?

Created by Norwegian coach **Borge Fagerli**, Myo-Reps are a training technique that yield very good muscle building results in a time efficient manner.

“After warm ups and a few minutes of rest, unrack the chosen load and do reps until you hit the failure point. This is the ‘activation set’. Re- rack the weight, count three to five deep breaths, unrack, and do a set of three to five reps. Now re-rack, rest, and repeat until you hit another failure point. This is the autoregulation aspect. On some days and on some exercises, you may only get something like 20 + 5 + 4 reps, but on other days/exercises, you may get 20 + 5 + 5 + 5 + 5 + 5 (or more).”

The point is to achieve high muscle fiber activation on the activation set and extend this effect by balancing on the verge of fatigue to perform more “effective” reps, taking advantage of all the hypertrophic signaling effects of occlusion training.”

ADVANCED TRAINING TECHNIQUE: MYO-REPS

What does it achieve compared to traditional sets?

Myo reps offer low intensity “high training volume” and are as such, very time-efficient.

The low weights that have to be used also make myo-reps very joint friendly.

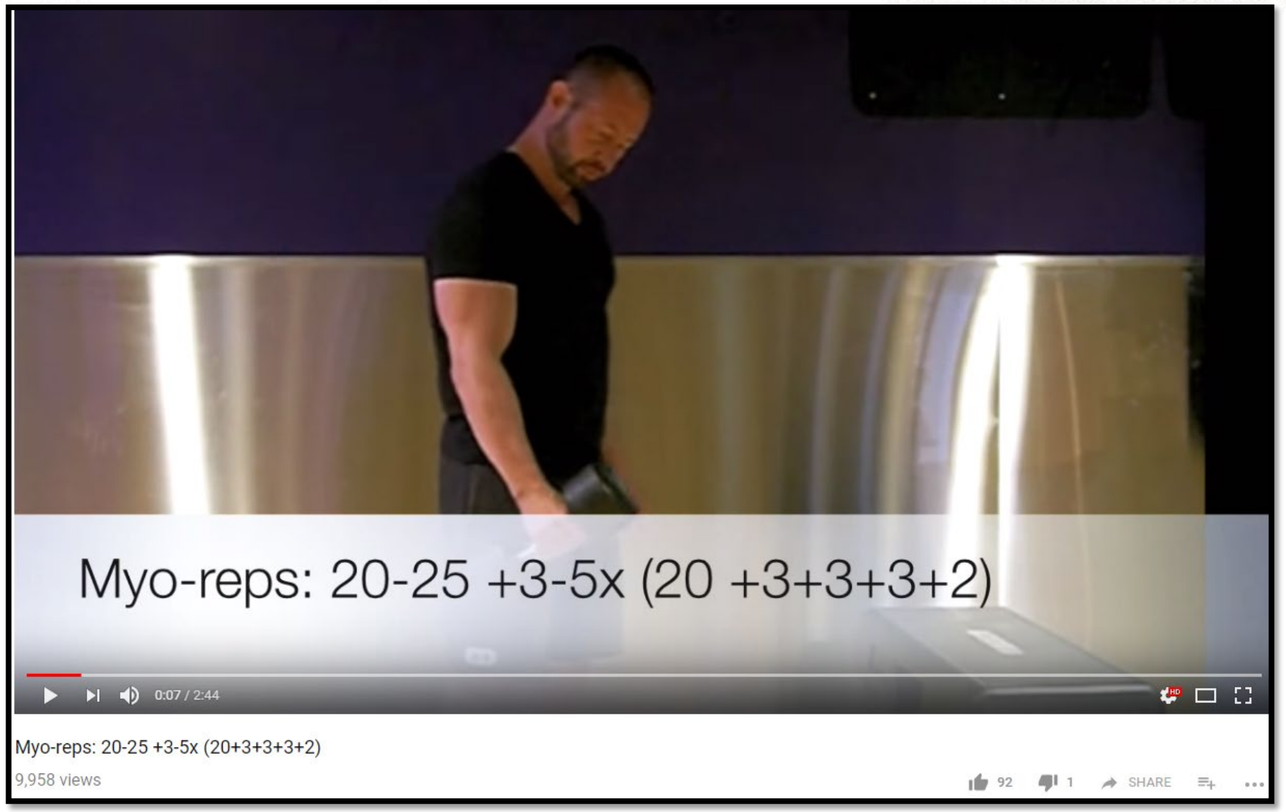
Downsides of myo-reps are that the short rest and low intensity make it “not the best” method for strength development. The inevitable technique breakdown and major cardiorespiratory component also make myo-reps unsuitable for technical exercises, like the powerlifts.

ADVANCED TRAINING TECHNIQUE: MYO-REPS

Who benefits from it?

Myo-reps are particularly suitable for injury prone exercises and trainees, like the elderly.

ADVANCED TRAINING TECHNIQUE: MYO-REPS



https://www.youtube.com/watch?v=hI7Wx9BYo6k

ADVANCED TRAINING TECHNIQUE: KAATSU

What is it?

KAATSU was developed by a Japanese sport scientist by the name of Sato in 1966 as a technique to increase muscle mass without having to use heavy weights. He first developed the idea during a Buddhist ceremony where he had to remain kneeling for so long that he occluded the blood flow from his own calves and thought ‘hey, this feels like the burn’. Years of experimentation went into it before it became publicly known in the West in the 90s, though elite athletes have been using it since the 80s when KAATSU training gear became publicly available in Japan.

Kaatsu is also known as “Blood flow restriction training”. You occlude a muscle with an occlusion device or simply some elastic material like knee wraps before exercising the muscle with a light weight.

ADVANCED TRAINING TECHNIQUE: KAATSU

What does it achieve compared to traditional sets?

Arteries pump blood into muscles, but the superficial occlusion prevents your veins from taking the blood out. The result is an accumulation of oxygen-deprived blood, AKA the pump, and of metabolic waste products like lactate, what you feel as 'the burn'.

To compensate, motor unit recruitment has to increase, specifically that of fast-twitch muscle fibers that can function in the anaerobic environment induced by the blood flow restriction.

Since mechanical muscle tension is relatively low and the fatigue from KAATSU is induced mostly by acute metabolic stress, KAATSU does not induce much muscle damage in most people. However, there are people, mostly women, who are exceedingly sensitive to KAATSU and actually seem to experience more soreness from it.

KAATSU training benefits strength development as well as muscle growth. Interestingly, KAATSU training is effective for the non-occluded muscle groups in the trunk as well as the occluded limbs. Restricting blood flow to your arms during the bench press increases muscle activation levels not just in the triceps but also in your pecs. Blood flow restriction makes the exercise as a whole more difficult, so all muscle groups must work harder to lift the weight.

KAATSU training induces just as much neuromuscular fatigue as high-intensity training, given the same total work performed. KAATSU training anecdotally seems to be easier to recover from than regular high intensity training though, due to the low resulting muscle damage and connective tissue stress.

ADVANCED TRAINING TECHNIQUE: KAATSU

Who benefits from it?

Beginners benefit in particular from the great metabolic stress to achieve full muscle fiber recruitment and the lack of muscle damage, enabling them to greatly increase their training frequency.

Endurance athletes also benefit in particular from the synergy between strength training and buffering metabolic stress.

Elderly and injured trainees benefit from the extremely low required intensity [2] to spare their connective tissues.

KAATSU can be used as a (p)rehabilitative exercise technique. When there is joint discomfort or risk of injury during an exercise, KAATSU training is often one of the first steps to take to work around the injury while preserving the stimulus for muscle growth.

ADVANCED TRAINING TECHNIQUE: KAATSU

KAATSU FAQ

Q: I don’t have an occlusion device. How do I implement it?

A: You can use wraps, rubber bands, or special BFR cuffs.

On a pressure scale of 1 - 10, aim for a 7 for your legs and a 6 for your arms. Your legs can be wrapped tighter, because they have more fat on them and don’t change shape as much when flexed.

Don’t try to go ‘super hardcore’ and bind down your limb as if you have to make sure you don’t bleed out. If the training intensity is sufficient, there is no point in increasing the cuff pressure. If you experience significant pain before even starting the exercise, numbness, tingling or skin whitening, the wraps are too tight. The goal of the occlusion is to let the blood pool in your veins **without** blocking arterial blood flow, so at some point, more pressure becomes detrimental.

On the other hand, if you do not experience an extreme pump and burn during the set, the wraps probably aren’t tight enough. Pain tends to be higher during KAATSU training than during regular high intensity training, especially in the elderly according to unpublished work by Todd Manini.

ADVANCED TRAINING TECHNIQUE: KAATSU

KAATSU FAQ

Q: Is it safe?

A: Yes, safer than high intensity training in most regards. It was developed for injured athletes and the elderly.

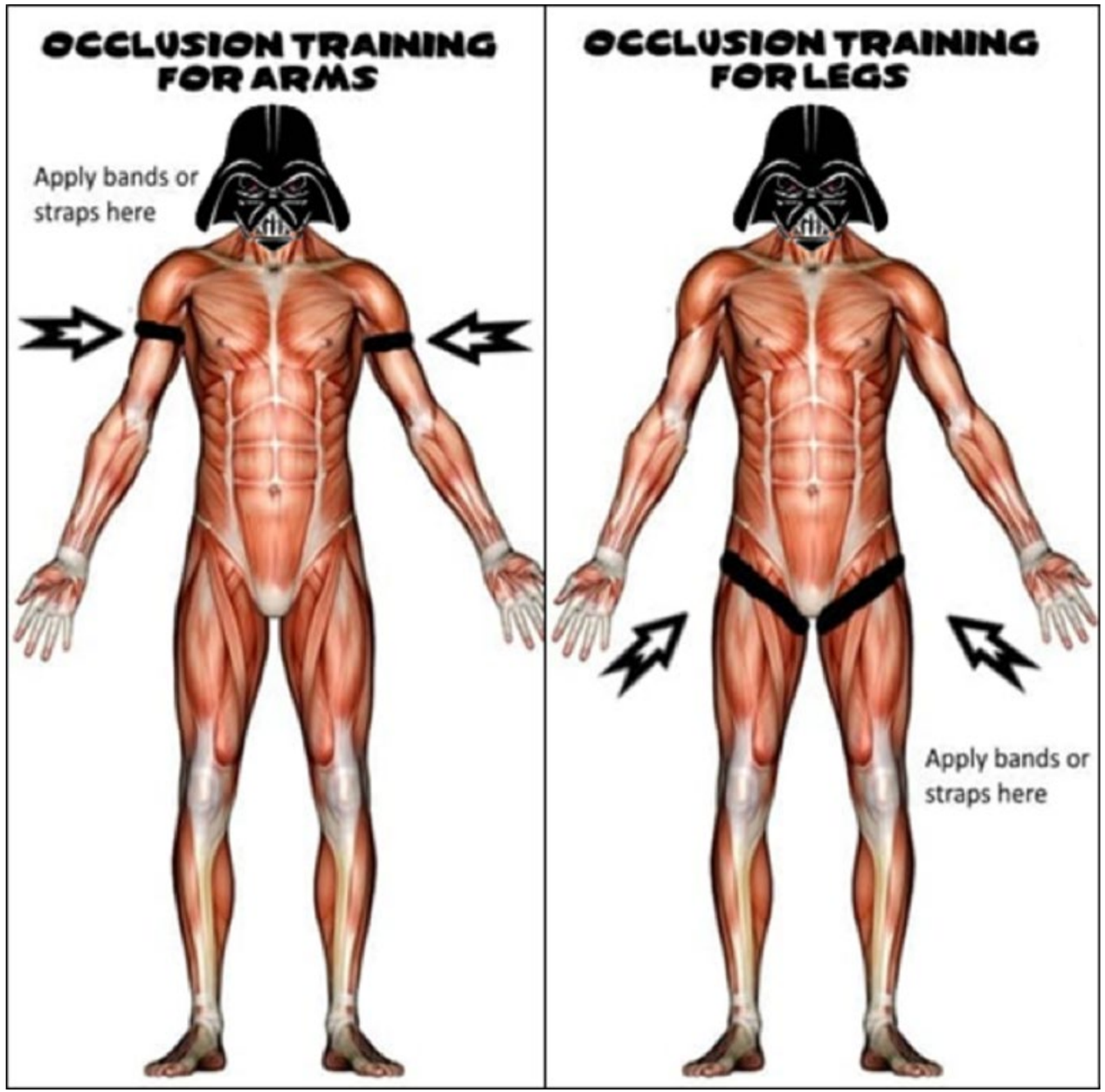
Q: How long should I rest in between sets?

A: Until you've caught your breath is generally long enough, but it varies exactly like regular high intensity training. If the intensity is less than 30%, you will likely need to use short rest intervals to cause enough metabolic stress to cause sufficient muscle activation.

Q: Should I take the wraps off in between sets?

A: To get the maximum occlusion effect, leave them on until you're done, otherwise the metabolic stress won't accumulate. However, you can get the same muscle growth by taking the wraps off in between sets if the intensity is sufficient.

ADVANCED TRAINING TECHNIQUE: KAATSU



MINIMALIST FULL BODY WORKOUT

You can use Bands or Dumbbells and add BFR cuffs	Myo Reps Training	Notes
Routine A	**Sets / Reps**	
Bulgarian Split Squat - quadriceps	20-25 +3-5x	Per Side
Band Single Leg Deadlift – hamstrings, core, glutes, lower back	20-25 +3-5x	Per Side
Band Hip Thrust . glutes	20-25 +3-5x	
Diamond Push-up – chest	20-25 +3-5x	
Band Shoulder Press - shoulder	20-25 +3-5x	Per Side
Band Overhead Triceps Extensions - triceps	20-25 +3-5x	Per Side
Regular Plank - core	5-10 repetitions of 5-15sec holds for 2-3 sets each	

Routine B	**Sets / Reps**	
Band Single Leg Deadlift – hamstrngs, core, glutes, lower back	20-25 +3-5x	Per Side
Band Standing Calf Raise - calves	20-25 +3-5x	Per Side
Band Face Pull - traps	20-25 +3-5x	
Band Cable Side Lateral Rise – side deltoids	20-25 +3-5x	Per Side
Band Rows – back	20-25 +3-5x	Per Side
Band Bicep Curl - biceps	20-25 +3-5x	Per Side
Side Plank - core	5-10 repetitions of 5-15sec holds for 2-3 sets each	

Myo Reps: 20 to 25 reps, rest 5 seconds, do 3 to 5 reps, rest 5 seconds, do 3 to 5 reps, rest 5 seconds, repeat the 3 to 5 reps until exhaustion.