

ENDOMORPH EVOLUTION

Transforming Average Joes to Alpha Males

Mitch Calvert

Dedication

To my parents--Nancy and Craig--who never stood in the way of my goals and dreams, and in fact encouraged me to pursue them with all of my being.

To my wife--Brittany--you make me want to become a better man every day. You are the Robin to my Batman (no homo).

Foreword

You've likely heard of somatotypes (even if the word isn't familiar). Ectomorphs, mesomorphs, and endomorphs. You also likely lean more towards one than the other two (though you may have a combination of all three) and that genetic blueprint presents hurdles in the way of your fitness goals, but you can overcome that through environment, diet and otherwise, and that's what I've set out to accomplish with this book.

A psychologist and doctor by the name of William Herbert Sheldon developed his somatotyping system in the 1930s, and this is where the terms ectomorph, mesomorph, and endomorph first entered the public conscious. Ecto (skinny), meso (muscular and lean), endo (fat).

In his 1954 book, *Atlas of Men*, Sheldon categorized all possible body types according to a scale ranging from 1 to 7 for each of the three "somatotypes", where the pure "endomorph" is 7-1-1, the pure "mesomorph" 1-7-1 and the pure "ectomorph" scores 1-1-7.

Sheldon's "somatotypes" and their supposed associated physical and psychological traits can be characterized as follows (according to Wikipedia.org):

- Ectomorphic: characterized as linear, thin, fragile, lightly muscled, flat chested and delicate; described as cerebrotonic inclined to desire isolation, solitude and concealment; and being tense, anxious, restrained in posture and movement, introverted and secretive.
- Mesomorphic: characterized as hard, rugged, rectangular, athletically built with well developed muscles, thick skin and good posture; described as somatotonic inclined towards physical adventure and risk taking; and being vigorous, courageous, direct and dominant.
- Endomorphic: characterized as round and soft with under-developed muscles and having difficulty losing weight; described as viscerotonic enjoying food, people and affection; having slow reactions; and being disposed to complacency

Sheldon actually based his work on what he believed to be psychological attributes tied to each physical appearance, and that notion has generally been dismissed as outdated by modern scientists.

But the fact remains that his work outlined three different body types that prevail today. Let's be honest, we all know the friend who eats McDonald's daily and has a bean pole frame despite their best efforts to gain weight. On the other end, you can so much as look at a piece of cake and grow a spare tire. You also probably remember the jocks in high school who grew beards and looked like men while you patiently waited for your balls to drop. It's a sobering reality, but I'm here to help you get the last laugh. That jock will eventually get fat (despite his genetic's best efforts to prevent it) and you can become the jock through diet and exercise (and a lot of hard work). *Bonus points awarded if you had braces in high school like I did.*

The public perception different body types carry with them are very real. If you're badly out of shape with poor hygiene, it's going to be an uphill battle to be "accepted" by society, get the jobs you want and the relationships you desire. It's not easy, and that's the sad but honest truth. People make snap judgements about others in seconds - literally SECONDS - based on appearance and body language. Before you even say anything, you can be written off. Scary thought, no?

For example, one study found that endomorphs are likely to be perceived as slow, sloppy, and lazy. Mesomorphs, in contrast, are typically stereotyped as popular and hardworking, whereas ectomorphs are often viewed as intelligent but fearful and usually take part in long distance sports, such as marathon running.

Should you just quit life because you've been dealt a bad hand? Hell no. There's been a fair bit of work done on epigenetics in today's scientific community, with new research allowing us to dig deep into DNA. Can you change your genetic blueprint? Research suggests so.

Scientists at the Karolinska Institute in Stockholm recruited 23 young and healthy men and women, brought them to the lab for a series of physical performance and medical tests, including a muscle biopsy, and then asked them to exercise one leg and not the other, essentially becoming their own case study. Using sophisticated genomic analysis, the researchers determined that more than 5,000 sites on the genome of muscle cells from the exercised leg featured new methylation patterns on the genes known to play a role in energy metabolism, insulin response and inflammation within muscles. In other words, these genomes affect how healthy and fit our muscles — and bodies — become, and exercise activates these otherwise dormant genes.

Does that suggest you aren't limited to the genes you were born with? Can you be a fat boy growing up and not be destined to a fat adulthood?

Absolutely, I believe you can change your genetics through smart nutrition and hard work in and out of the weight room. Heck, I don't eat perfectly clean all the time anymore, my calories are way higher than I was when I was a chubby 240 lb. kid and sedentary, but I have muscle where fat was before and feel so much better mentally and physically.

Whether somatotypes exist or not, I firmly believe there's an optimal diet for each body type, with individual variations to account for. What one person can get away with diet wise and maintain a six-pack, another simply cannot. That's reality. I don't need scientific proof of somatotypes to know some range of body types exists in the world today.

But ditch the excuses. The take home point is ultimately not to let your genetic limitations hold you back. You can improve what you consider a sub-par metabolism through diet and exercise. Don't let those mental barriers ("oh, but my mom and dad were like this so it's inevitable") stop you from getting started. This is the Endomorph Evolution. Welcome aboard.

Contents

About the Author	1
The Blueprint	3
How I Quadrupled My Testosterone	5
PART ONE: Mind Games	
Finding Your "Spark"	8
Mental Block	9
Break The Routine	10
PART TWO: Eat Your Way Sexy	
Diet Principles	13
Calorie Counting	14
The Case Against Intermittent Fasting	20
Nutrient Timing	22
Nutrient Density	23
Organic vs. Non-Organic	24
Intra Workout Nutrition	25
Recommended Foods	27
Mind Your Health	29
PART THREE: Live For The Grind	
Training Programs	35
Beginner Program	36
Intermediate Program	37
Advanced Program	39
Exercise Video Library	45
Intensity Techniques	47
Fat Loss Techniques	51
Fat Loss Circuits	56
Cardio	59
Supplements	62
Dieting Tips	64
About Calvert Fitness	66
Disclaimer	67



Mitch Calvert is a certified personal trainer with a B.A. who has been featured on elitefts.com, Livestrong.com, STACK.com, and was ranked as one of the top 10 fitness blogs by BreakingMuscle.com in 2013. He is based in Winnipeg, Canada.



About The Author

I was always a chubby kid growing up, and got a lot of satisfaction from the foods I ate. And I liked to eat! Deep-fried foods, sugars, you name it I ate it. I loved food and it loved me back. But the more I ate and the more weight I gained, the less comfortable I became in my own skin. I avoided social interaction with people, and instead engrossed myself in online video games where face-to-face communication wasn't required. It became a deadly duo of junk food and inactivity until I tipped the scales at well over 240 pounds.

The cycle continued until after high school graduation, when something inside finally spoke up. I discovered my motivation within. I had reached a point where I knew if I did not make a change at that very moment, I would never be truly happy with myself and my life. I don't know what finally clicked, maybe it was being forced out of my comfort zone in my first year of university and being forced to interact with people my age in social situations, or maybe I just became more self-aware of the damage I was causing to myself both physically and mentally.

You'll see what seemingly random act was my "spark" in a later chapter, but whereas some people can be comfortable at a heavy weight - or at least outwardly portray a façade of confidence - I wasn't that type and needed to make a change if I was to accomplish the things I wanted to accomplish with my life: marriage, travel, and career. I felt my weight would be a mental obstacle in my way - so it was necessary to address it. All that mattered at that point was that I knew I had to start somewhere. So began my late night walk-jogging (because I could only run in spurts). That progressed to nightly jogs and the runners' high people talk about became my motivation.

I cut back on food intake, but didn't have a clue about diet. The weight came off over time, slowly but surely, and my addiction to food and video games became less. I went from a pudgy 240 pounds at 6-foot-1 to a skinnier 180 pounds in a span of about a year. I eventually got good enough at running to enter a few 10K competitive runs, and then eventually the half-marathon on Father's Day in June 2005 - commemorating the two year anniversary of my lifestyle change.

Despite all that running, I wasn't in love with my body. I still saw myself as skinny-fat with little muscle tone, and I had some stretch marks and loose skin in certain areas. That's when I turned



Before photos

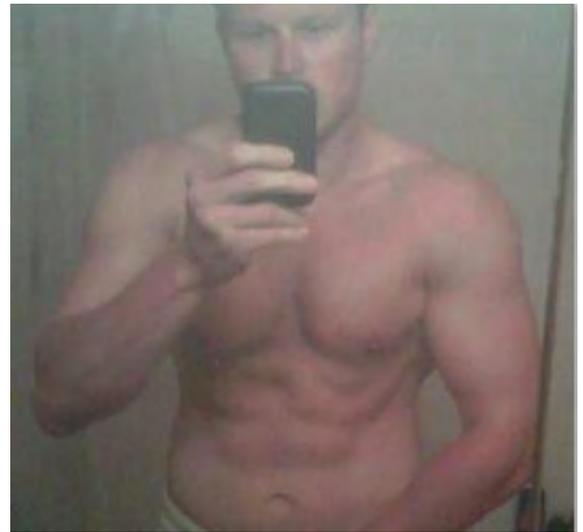


to weight lifting. Soon my passion for running transferred to the gym, where lifting weights became my passion. Desire to change motivated me to return to my gym asylum every day, and I began to learn more and more about nutrition and weight training. Slowly I gained weight of the good variety and fine-tuned my look, adding some muscle and definition.

In the after picture, I sit at 221 pounds - only nine pounds shy of my heaviest weight, but as a much tighter package. My journey is by no means over, however. I continually strive to get better and have a lot of room for improvement. It's been gratifying to work each day on self improvement, both physically on the outside and as a person inside. The two go hand-in-hand. If you only focus on one without the other, you aren't truly growing and improving.

That last point is especially important: In order to succeed and achieve, you need to improve yourself on the inside along the way. You need to create a positive mindset of yourself. We are our own worst enemy, but our thoughts are not some kind of truth manifestation, they are what you have created for yourself over many years. If you harbour a self-defeatist attitude in your mind, your goals will never be within reach. You must create positive thoughts so your brain will actually work for you, not against you.

Once you start to think positively, you'll see all the opportunities life has to offer. When you start to get your self-esteem back and start to live and give and receive, positive thinking will spark your journey to a better life. There are tools to help you change your way of thinking - every day is a battle, and anything you can use to help win that battle should be utilized. Those tools will be sprinkled throughout this program.



The after shots (awkward flex face cropped out)



Obligatory flexed leg and comatose cat shot



How I Quadrupled My Testosterone

It was the summer of 2012. I was seemingly killing myself in the gym, doing cardio religiously like all the fitness mags said to do, and yet I didn't have the body I wanted and felt a lot older than I was.

I struggled to drag myself out of bed each day and had some lingering aches and pains in my knees and back, fought bouts of anxiety at times and just had a general lethargy from the moment I awoke to the time I tried to retire for the night - and falling asleep wasn't easy either despite all the daytime fatigue.

Wasn't a healthy lifestyle supposed to make me FEEL healthy? I had been at this fitness game for 10 years by this point, and though progress was being made, and I was getting client success stories, I felt there must be a better way and not have it negatively impact my day-to-day life, after all fitness should help you live a better life, not be the only reason for living.

So on a whim, I decided to book a physical with my family doc and get some blood work done.

To my dismay, when the results came back, not only were my cholesterol values out of whack but I had the testosterone levels of an 80-year-old male. But rather than be put on statin drugs (for cholesterol), and deal with those complications the rest of my life, I resolved to get my health right the natural way, and then retest three months down the road. After some resistance, I escaped the doc's office without a prescription (statins have been linked to lowered testosterone in men - cholesterol/testosterone relationship)

Over the following weekend, I poured over every research paper I could find on the subject of cholesterol and testosterone, but kept coming back to the Weston A. Price Foundation. It emphasized a return to the old way of eating, direct from the farmer with nutrient-dense foods (particularly free-range animal proteins loaded with lots of fat soluble vitamins). Direct from their website, they believe humans achieve perfect physical form and health generation after generation only when they consume nutrient-dense whole foods and the vital fat-soluble activators found exclusively in animal fats.

I read further, and came across the work of John Meadows, a national level bodybuilder and creator of the Mountain Dog Diet who adopted the same eating style with positive results in his pursuit of muscle, and more importantly health, and now I had the testimonial I needed from a guy I wanted to emulate. I owe a lot of my success over the last few years to his writings, and have adopted his principles into my training and exercise. He deserve a lot of credit, and whoever his mentors were before him do so too.

Anyway, over those three summer months, these are the steps I took to turn my health around and quadruple my testosterone levels in the process:

- I cut way back on the fasted, steady state morning cardio sessions I had been doing (they were wreaking havoc on my testosterone:cortisol ratio) - see [cardio section](#)
- I cooked pan-fried meals exclusively in extra virgin coconut oil (dropped olive oil even)
- I also found a reputable local source for grass-fed beef and swapped out all my store-bought animal meats except lean chicken (toxins are largely contained in the fat of feedlot animals)
- I opted for the more expensive (but healthier) free run chicken eggs
- When I'd eat fish, I'd buy wild caught instead of farmed (hard to tell with packaging these days) and I started supplementing with fish oils to improve my omega-3:omega-6 ratio.
- I greatly reduced my sugar consumption (it was a good run, Lucky Charms) and started supplementing with [GDAs \(glucose disposal agents\)](#), notably cinnamon powder and alpha-lipoic acid.
- I started every day with a cup of warm water or tea with fresh squeezed lemon juice from a lemon (do not buy the pre-packaged stuff that comes in that pretty plastic lime or lemon).
- I bought organic fruits and vegetables often (unless the fruit or veggie has a hard shell or skin, i.e. avocados, as there's no evidence to suggest organic varieties are better - the shell protects from contaminants). For a list of when to spend and when to save, [see Organic vs. Non-Organic](#)
- I swapped out my plastic tupperware for glass ([read up on the phytoestrogens in plastics here](#))
- I supplemented with [2,000IU of vitamin D3](#) daily and [ZMA](#) before bed. Vitamin D levels have been directly correlated with testosterone production in men, with research showing men with higher Vitamin D levels have higher Free Testosterone. Zinc and magnesium (in ZMA) are generally depleted in athletes via sweat, and have also been linked to healthy testosterone levels.

The Results Are In...

June 15, 2012 (Pre-diet changes)

Triglycerides 1.5 (range 0.56 - 2.3)

HDL 0.6 (0.9 - 1.6)*

LDL 3.71 (Optimal <2.57)*

Total CHL RATIO 7.67 (Optimal <4.98)*

Testosterone 6 (8 to 35)*

September 11, 2012

Triglycerides .60 (range 0.56 - 2.3)

HDL 1.45 (range 0.9 - 1.6)

LDL 1.12 (Optimal <2.57)

Total CHL RATIO 2.85 (Optimal <4.98)

Testosterone 27.69 (8 to 35)

The after results

Medical

Mitchell

116307640

784516

 Patient: MITCHELL
 Status: FINAL
 TRAINER
 Gender: M

Ordering Doctor: CHEUNG

Accession Number: 461522 Status: Final
 Collection Date: Sep 11, 2012 Report Date: Sep 11, 2012
 Collection Time: :

----- Chemistry -----
 TEST NAME VALUE UNITS REFERENCE RANGES ABNORMALITY
 GLUCOSE FASTING 5. mmol/L 3.6 to 6.1

----- Electrolytes -----
 TEST NAME VALUE UNITS REFERENCE RANGES ABNORMALITY
 CHLORIDE 100. mmol/L 98 to 109

----- Glucose -----
 TEST NAME VALUE UNITS REFERENCE RANGES ABNORMALITY
 HbA1c 5.7 % 4 to 6

----- Lipids -----
 TEST NAME VALUE UNITS REFERENCE RANGES ABNORMALITY
 CHOLESTEROL TOTAL 2.65 mmol/L
 NORMAL: <5.20 BORDERLINE: 5.20-6.20 HIGH: >6.20
 TRIGLYCERIDES 0.6 mmol/L 0.56 to 2.3
 HDL CHOLESTEROL 1.45 mmol/L 0.5 to 1.6
 LDL CHOLESTEROL (CALC) 1.12 mmol/L
 OPTIMAL <2.57 NEAR OPTIMAL 2.58-3.35 BORDERLINE HIGH 3.36-4.12
 HIGH 4.13-4.90 VERY HIGH >4.90

----- Chemistry -----
 TEST NAME VALUE UNITS REFERENCE RANGES ABNORMALITY
 ALT(SGPT) 45. IU/L 9 to 56
 AST(SGOT) 43. IU/L 5 to 50
 ALK. PHOS. 53. IU/L 36 to 160
 UREA NITROGEN 9.7 mmol/L 2.9 to 7.1 *
 CREATININE 110. umol/L 62 to 119
 EGFR >60 ml/min >60
 CPK 448. IU/L 52 to 175 +

CPK (Creatine phosphokinase - an indicator of inflammation) and ALT/AST were elevated in both tests because I trained too close to the blood draw, creating a false positive. Please allow three days of inactivity before getting tested (liver values can be elevated from weight training, but it's generally not cause for concern)

TESTOSTERONE 27.69 nmol/L 5 to 35
 SODIUM 143. mmol/L 135 to 148
 POTASSIUM 4.1 mmol/L 3.5 to 5.3

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