



# ENDOMORPH EVOLUTION

*Lose Fat & Gain Muscle  
Simultaneously*

Mitch Calvert

# Dedication

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*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.*



# Foreword

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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 somatonic 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.

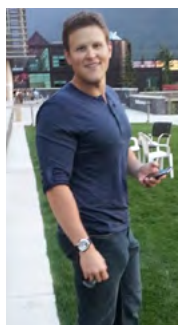
Whether somatotypes exist or not, I firmly believe there's an optimal diet for each body type, with individual variations to account for. What one person can get away with diet wise and maintain a six-pack, another simply cannot. That's reality. I don't need scientific proof of somatotypes to know some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

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**STACK**

**elitefts** 



# 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.

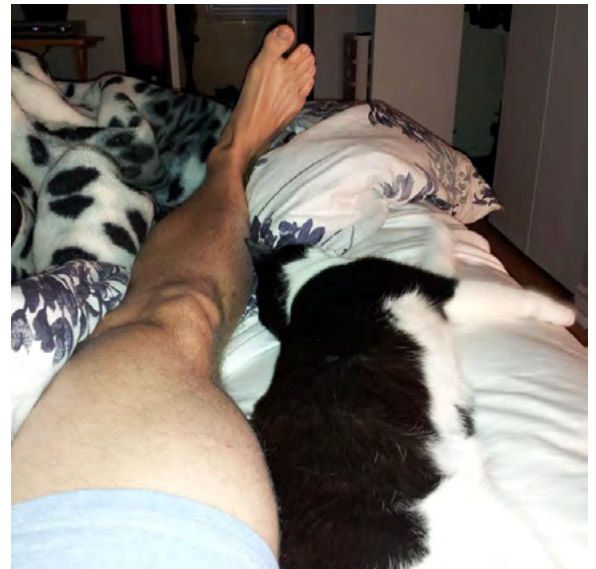
Once you start to think positively, you'll see all the opportunities life has to offer. When you start to get your self-esteem back and start to live and give and receive, positive thinking will spark your journey to a better life. There are tools to help you change your way of thinking - every day is 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*



Employing those principles in your everyday life can change someone's perspective, and that simple change CAN have a profound impact on the individual, but only if the person is willing to pour their heart and soul into their goals and dreams and not rely on these tools to convert their positive thoughts into real world successes overnight. Hard work, in a smart and effective fashion - with these tools as the foundation - is the common denominator.

## The Blueprint

You've probably joined a gym, bought a treadmill or Bowflex, or started a diet on "Monday" at some point in your life up to this point—but if your gym membership went unused, that Bowflex doubles as a clothes rack and you plan to start that diet "next" Monday—you're not alone.

When I decided to write a book, I vowed to make sure that had my 20 year old self come across it, my 20 year old self would've accomplished twice the results in half the time.

This book would have helped me succeed in the gym and life a lot sooner, not to mention the windfall of savings I would've had from not buying bullshit supplements.

This book has been a six month project of actual fingers to keyboard work, but in essence it's been in the works for 13 years since I first began my fitness journey and I'm now paying that forward. I want you to learn from my mistakes and get two steps ahead without one step back. Constant progression is the name of the game and this book is the blueprint to help you continue on your journey.

***A disclaimer before you read further:*** If you've been completely sedentary up to this point, I'd ask that you simplify your approach before adopting the diet and training methods enclosed in this book. This is for someone that's got a baseline knowledge of diet and exercise and is looking to take that next step. If you're completely new to the game, read the next few paragraphs and then revisit the rest of the book six months to a year down the line.

In the beginning, just focus on the basics. Eat less sugar and processed foods, add in more lean protein and vegetables instead.

Eat on a schedule that's convenient for you. If you try to completely revamp your lifestyle on Day 1, the likelihood of sticking to it diminishes greatly. Habits take time to develop, and if it's too much change too soon you won't get where you need to go.

If you want to get slightly more specific, and you're an endomorph and not particularly active, you should emphasize protein and healthy fats with smaller amounts of carbs than the typical



American diet recommends.

A good rule of thumb that doesn't require macro counting and weighing food:

- Palm-sized portion of lean protein
- Palm-sized portion of vegetables
- Cupped hand portion of carbohydrates
- Teaspoon portion of fat

So if you eat six meals a day, men would include a single palm serving of lean protein, a palm of veggies, a cupped hand of carbs and a teaspoon of healthy fats (i.e. nuts, tsp of coconut oil etc.). If you eat three meals a day, double those portions. For women, you should aim to eat approximately half those amounts, i.e on the three meal a day plan, a single serving of each of the four measured food groups.

Then try to get in the gym on a consistent schedule and stick to a program. At this stage of the game, the minute details matter little – it's more about getting in the gym and working as hard as you can for your level of development.

Manage your stress, sleep as much as you need to feel rested the next day and make smart dietary choices most of the time.

**Now, for those ready to go from average joe to alpha, this is where the blueprint begins.**

If you've been training for awhile and feel stuck – I feel your pain. It sucks feeling like you're working hard and not getting results. Don't get me wrong, I don't regret the journey it's taken me to get here – the bumps in the road build character – but why would you not try to find the path of least resistance toward your goals? The sooner you reach them, the sooner you can set new, higher achieving ones.

If you want to drop the fat, attract the opposite sex (or same sex) and build a work ethic that translates to all areas of your life, this book aims to set the foundation for you to move forward. Instead of finding a mentor, I had to do things the hard way. I had to make mistakes. It's been a 13 year grind dating back to the year I graduated high school (that makes me feel old), and I've had my share of failures and successes over that time, but my goal for this book is to make your journey more slanted to successes than failures.

# 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 deserves 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).
- 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

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 Patient: MITCHELL  
 Status: Final  
 Gender: M  
 Ordering Doctor: CHEUNG  
 Accession Number: 461522  
 Collection Date: Sep 11, 2012 Report Date: Sep 11, 2012  
 Collection Time: :  
 \*\*\*\*\*

| TEST NAME                | VALUE | UNITS  | REFERENCE RANGES   | ABNORMALITY |
|--------------------------|-------|--------|--|-------------|
| ----- Chemistry -----    |       |        |  |             |
| GLUCOSE FASTING          | 5.    | mmol/L | 3.6 to 6.1   |             |
| ----- Electrolytes ----- |       |        |  |             |
| CHLORIDE                 | 100.  | mmol/L | 98 to 109  |             |
| ----- Glucose -----      |       |        |  |             |
| HbA1c                    | 5.7   | %      | 4 to 6   |             |
| ----- Lipids -----       |       |        |  |             |
| CHOLESTEROL TOTAL        | 2.65  | mmol/L | REFERENCE RANGES   | ABNORMALITY |
|                          |       |        | 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 | REFERENCE RANGES   | ABNORMALITY |
|                          |       |        | OPTIMAL <2.57 NEAR OPTIMAL 2.58-3.35 BORDERLINE HIGH 3.36-4.12<br>HIGH 4.13-4.90 VERY HIGH >4.90 |             |
| ----- Chemistry -----    |       |        |  |             |
| 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            | 9.2   | mmol/L | 2.9 to 7.1   | *           |
| CREATININE               | 110.  | umol/L | 62 to 115  |             |
| 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 |

\*\*\*\*\*  
 Sending App: INTRLAB Sending Facility: TRAINOR Receiving App: JONORE Receiving Facility: JLIN  
 Time Stamp: Sep 11, 2012 16:23 Message ID: 009020317033  
 Message Type: QW'RO1 Version: 2.2  
 Disk File: 20120911162432\_JLIN\_9020\_TRAINOR.HL/

\*\*\*\*\* Legend \*\*\*\*\*

# PART ONE: Mind Games

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# Finding Your “Spark”

"Don't move an inch, bitch," the buck-toothed cook said as he held a hot oven pan to my neck. It was fall 2002, I was a summer removed from high school graduation and needless to say I wasn't in a great place in my life.

I had a pretty terrible job as a sous chef (glorified salad maker) at Grapes restaurant and was taking an average course load in university towards a journalism degree. Other than that, I spent my free time over-eating and under-exercising living out a fantasy in video games.

The girls weren't lining up to date me, I was probably 40 pounds overweight, mad at the world and not overly eager to change my lot in life.

After all, I was level 60 in Lineage II and in one of the top clans in Team Fortress Classic, so there was a silver lining to it all! I was on top of the (cyber) world! Why would I need to get my shit together IRL (In Real Life for you lame non-gamers)?

Well, despite fleeting moments of happiness when I'd win a match or chat with a cyber gaming girl (at least I hope it was a girl), I wasn't truly satisfied with where my life was headed and had to face the reality of it all sooner or later.

So where am I going with this? I needed to find the spark that would snap me out of it. Arnold Schwarzenegger refers to the spark in fitness terms, that when you find it, nothing can stop you from reaching your goals.

I found my spark in an unconventional way, motivated by unconventional means. One random weekend at Grapes, as I was busy avoiding the maniacal cook and whipping up my 34th salad of the night, I looked through the kitchen prison doors into the dining room and honed in on a jacked up dude who came strolling in with a group of well figured women. He reeked of alpha status. The male/female ratio was well in his favour, to say the least. I wanted what he had. Sure, it may have been for superficial reasons initially, but it was enough to get me curious about what it would take to get there.

To drive home the point further, the dude ordered half the menu. There's no more motivation for an endomorph than the thought of eating like Jabba The Hut and looking like a muscled up Han Solo.

I had to know what his secret was. That night, instead of gaming until 3 a.m., I read anything



bodybuilding and fitness related I could get my virtual fingertips on. It was fascinating stuff. I literally became more self-aware overnight, and knew I'd have to take the next step, which meant getting in shape of course! And that's exactly what I did (well, sort of). I went about it all the wrong way, as you may have read about in the [About The Author](#) section. I ran... and ran... and ran some more, and although I lost body mass, it wasn't a tight package nor the look I wanted. It took a lot more web surfing to realize weight training was where it's at, and since that light bulb moment I've been training (and loving it) ever since.

As John Romaniello wrote in *Man 2.0: Engineering the Alpha*, you need to find your call to action (his white polo shirt moment) – “the spark” that awakens the beast inside of you who wants to change more than wants to stay the same.

Romaniello says your job is to be aware that such calls exist. And when they arrive, you must rise up to the challenge and listen to the opportunity. It can be subtle – like my envy of the bodybuilder and his bevy of babes – or slightly more obvious in the form of a serious health problem that forces action. There is no greater motivation than the prospect of your own mortality.

Purchasing this book makes you aware of it – and may just be the spark you need – but if not, keep an eye out. The spark will come. It's up to you to ignite it when it does show itself.

The crazy cook I mentioned earlier? Well, he ended up going to prison for manslaughter. Karma, bitch!

## Mental Block

Until you get your mind on the right track, you'll never succeed. It's as simple as that. The greatest barrier to success lies in your own mind. As my friend Jeremy Scott ([jeremyscottfitness.com](http://jeremyscottfitness.com)) references in his book *Make Success Mandatory*, you need to alter your perspective on fitness from a "should" to a "must".

Rather than "I should start working out" it's re-framed as "I must start working out". Make a list of your "musts" - those that'll help you reach the goals you've set - and watch your life change. No longer will procrastination and apprehensiveness rule your daily rituals.

*"I must work out at least four times per week"*

*"I must keep junk food out of my home"*

*"I must drink two gallons of water each and every day"*

And so on. Fitness is a marathon, not a sprint (though I much prefer the latter for fat loss, as

I'll allude to later in the book), so if you're not willing to make this a lifetime pursuit you should throw this book away (or delete it from your PC). There's a certain level of commitment on your part that is absolutely necessary here.

Plenty of obstacles stand in your way right now. You have a number of legitimate excuses. But I promise you the rewards lie on the other side. Once you get into a rhythm there is nothing that can stop you. Please, for your own good, give this all you've got.

Mental barriers are difficult to overcome, but I'm here to tell you those barriers are self-fabricated in today's society. There's nothing holding you back if you choose not to let it do so. You really have to want to transform to be able to transform. The hardest part is going to be those first 2-3 months until you've adopted a healthy lifestyle and working out and eating right is a form of habit.

In a study published in the *European Journal of Social Psychology*, a team of researchers aimed to see just how long it takes to form a habit.

The study examined the habits of 96 people over a 12-week period. Each person chose one new habit for the 12 weeks and reported each day on whether or not they did the behavior and how automatic the behavior felt.

Some people chose simple habits like "drinking a bottle of water with lunch." Others chose more difficult tasks, like a commitment to fitness, i.e. "running for 15 minutes before dinner." At the end of the 12 weeks, the researchers analyzed the data to determine how long it took each person to go from starting a new behavior to automatically doing it.

*The answer?*

**On average, it takes more than two months before a new behavior becomes automatic – 66 days to be exact.**

The weight training programs in the back of this book are a minimum of eight weeks per training cycle for that reason alone. Follow the blueprint and you'll form a fitness habit for life.

## Break The Routine

Maybe you've taken the first step and purchased a gym membership before (or currently have one that's only serving to auto-debit monthly from your chequing account). Maybe you gave it an honest effort as part of your New Year's Resolution one time, but didn't see the results fast enough and gave up. But you've got to do more than just go through the motions if you want to succeed long-term. 20 minutes a day gets you started – strategic planning and pushing outside

your comfort zone makes it lasting, and this program will get you there.

You see it happening every day in the gym. You can't simply go through the motions and expect results forever. Sadly, many people will set aside an hour every day to stop by the gym and sweat it out – consisting largely of the same routine and exercise sequence – at more or less the same pace. After a while the results wear off, but they continue to bash their head against the wall expecting it to change. It's great they're setting time aside for their health, but simply being at the dance is not going to get you the girl.

There needs to be a plan of action in place. Elliptical Lady's body can do that 30 minute cardio routine in its sleep, so expecting to improve conditioning or drop fat from it is wishful thinking at this stage. She's gotten all the benefits out of that. Sure, she may be able to come back to it months later and the results might start again, but it's time to move on for now.

We are all creatures of habit. But why dedicate an hour to the gym every day if it's not going to physically change you or improve conditioning, muscle gains etc. (whatever your goal is)?

In the health industry especially, we get behind a popular fitness routine and close ourselves off to other options. It's good to stick with a program to gauge results, but the same routine year after year? Find a new routine to latch onto and give it an honest effort to accurately gauge results. It may reinvigorate you mentally for one, but it also may lead to new benchmarks in your fitness pursuits. You'll find plenty of programming options in this book geared specifically to your goals and level of development.

**Note:** There's an opposing mentality in the fitness industry that encourages hopping from one program to the next without giving it an honest effort. This is almost worse than the other viewpoint because you never allow yourself time to fully assess the results. Building the body you want takes time - no matter how efficient the program is designed for you. Resist the temptation to latch onto the latest program to come across your facebook timeline or twitter feed. Stick with something you believe in and reassess after 2-3 months.



# **PART TWO: Eat Your Way Sexy**

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# Endomorph Evolution Diet Principles

Here are the principles of the diet to arm yourself with as you read through this chapter:

- On your training days, you'll eat a set calorie amount depending on your goals, while on your two non-training or light cardio days, you'll eat a below maintenance diet with only trace amounts of carbs. The calories on training days ensure you're recovering appropriately and exercising at optimal efficiency (we do want to prioritize lean body mass after all). The two low carb days are focused on optimizing your insulin sensitivity, which you'll find is a theme throughout. The more sensitive your muscle cells are to insulin, the greater your results in both building muscle and getting lean become. As an endomorph, getting this handled is hugely important.
- On a HIIT cardio day or a training day of your choice, you'll eat a disproportionate amount of calories from carbs (think NFL Sunday binge of ice cream) for a 3 hour window immediately post workout. We all need a cheat. This is listed as the high carb day in the calorie counting chapter.
- Calories are tracked - not so much because I think calories in vs. calories out is the be all, end all (I'm convinced you can gain lean body mass in a calorie deficit with the right strategies), but if you're an endomorph, eyeballing food quantities is a difficult task. Your appetite far exceeds portion control. By measuring your calorie intake, you can better control this variable. That said, after a few weeks of eating consistently, you'll have a pretty good idea of food quantities and macronutrients without having to scale weigh it all.
- The only fasting you'll be doing is between your last meal before bed and breakfast (9 PM - 9 AM at most). A 10-12-hour fast followed by a low-carb breakfast gives you the benefits of fasting (increasing insulin sensitivity) while at the same time promoting protein synthesis - which I'll explain in more detail later. Full out day-long fasts are brutal psychologically, and over time preferentially eat up muscle mass for energy. We don't want that.
- Weigh yourself once weekly first thing in the AM before food or drink (keep this consistent each week). Ideally, Sunday morning after a low carb day. You want to see small incremental changes on the scale (either adding or dropping weight depending on whether you choose fat loss or muscle gain). Don't live and die by the scale - muscle weighs more than fat after all - but if you're looking for accelerated fat loss your overall weight should be going down week-to-week. Aim for 1-2 lbs per week, though that can be as much as 5 lbs early in a diet or if you have a lot of weight to lose. The same goes for weight gaining phases.

# Calorie Counting

If there's one chapter in this book I advise against glossing over, this is the one. Diet is 80% of the game (especially for the person genetically disposed to weight gain).

I'm sure you have a friend or even a family member who can eat McDonald's daily and stay lean year-round. That's not you! If you bought this book, you don't fall into that category. I want to provide you with a diet that will not only get you in shape, but also maintain or even improve your health. A sexy body that's a mess on the inside is not a sustainable way to go about this. Crash dieting can permeate into the rest of your life and affect your job prospects, relationships and mental health. Your fitness pursuits have to be a part of your life, not the only thing. Unless you're part of the 1%, there's no get-rich-quick scheme to be had from a sexy body, either. You need to do this for your own health and happiness, first and foremost.

If you're looking for a quick diet that'll get you lean fast – but leave you worse off health wise and metabolically (i.e. the Biggest Loser drastic approach) – this program is not for you. Secret revealed: Most contestants on NBC's "The Biggest Loser" gain back a lot of the weight they lose on the show within a year or so, a fact that one of the show's trainers, Jillian Michaels, admitted to The Nashville Tennessean news agency.

Your healthy lifestyle has to fit your lifestyle! Working out for five or six hours a day – day after day – leads to drastic weight loss, but it's clearly not sustainable. Just like dropping your calories to less than 1,000 a day will do the same, but nor is it sustainable. A theme of this book is progressive steps, not leaps, toward your goals. They're more achievable and sustainable that way.

## **Here's the base macronutrient setup to start with on the Endomorph Evolution Diet:**

Protein: 1 gram per pound of body weight

Fat: .5 grams per pound of body weight

Carbohydrates: The remaining number of calories left over based on your goals

## **Now determine your baseline caloric requirements:**

### **1. Calculate BMR (Basal Metabolic Rate) in METRIC**

Women BMR =  $655 + (9.6 \times \text{weight in kg}) + (1.8 \times \text{height in cm}) - (4.7 \times \text{age in yrs})$

Men BMR =  $66 + (13.7 \times \text{weight in kg}) + (5 \times \text{height in cm}) - (6.8 \times \text{age in yrs})$



For example:

$$BMR = 66 + (13.7 \times 93) + (5 \times 178) - (6.8 \times 27) = 2,413.6 \text{ calories}$$

1. Male
2. Age: 27 years
3. Height: 178 cm (5'10")
4. Weight: 93kg (205 lbs.)

*Note: Multiply the number in brackets first, then you can add and subtract.*

But BMR does not account for muscle mass or activity level (that's why a muscle bound guy gets compared to an obese person at the doctor's office) so calculate Total Daily Energy Expenditure (TDEE) for more accurate calorie estimate.

## 2. TDEE = BMR x Activity Factor

Determine your activity factor from the table below and multiply this number by the BMR you just calculated above, to determine your TDEE.

# Activity Factor Table

| Amount of Exercise/Activity | Description                                       | TDEE/Maintenance   |
|-----------------------------|---|--------------------|
| Sedentary                   | Little or no exercise/desk job                    | TDEE = 1.2 x BMR   |
| Lightly Active              | Light exercise/sports 1 – 3 days/week             | TDEE = 1.375 x BMR |
| Moderately Active           | Moderate exercise/sports 3-5 days/week            | TDEE = 1.55 x BMR  |
| Very Active                 | Heavy exercise/sports 6 – 7 days/week             | TDEE = 1.725 x BMR |
| Extremely active            | Very heavy exercise/physical job/training 2 x/day | TDEE = 1.9 x BMR   |

**TDEE = BMR x Activity Factor**

$$TDEE = 2413.6 \times 1.55 = 3,427 \text{ calories}$$

Looking at the chart, we selected an activity level of 1.55, as our test dummy finds the time to train 4-5 days per week. Multiplying his activity level of 1.55 by his BMR of 2,413.6, we get a baseline calorie requirement of 3,427.

Now depending on whether you're looking primarily for fat loss or muscle gain, calories can trend down or up from your maintenance requirement. Note: Body recomposition can be achieved at maintenance calories with the two low-carb days built into the EE diet (this is a sustainable approach if you have no immediate goals)

### **Fat Loss**

Reduce TDEE by preferred percentage:

10% – Normal fat loss

15% – Aggressive fat loss (would not recommend more than 20% drop to start unless you have more than 100 lbs to lose)

### **Muscle Gain**

Increase TDEE by preferred percentage:

10% – Normal muscle gain

15% – Aggressive muscle gain

I would always recommend the least drastic changes to start (incremental progression is key) unless you have a lot of weight to lose. Those with considerable fat mass are less likely to lose lean body mass during the early stages of a diet regardless of calorie deficit.

If fat loss is your goal, let's take the TDEE of 3,400 (rounded down) and reduce calories by 10%.

Our Test Dummy is left with 3,060 calories to start his fat loss diet. Now that we have the calorie target, we can set about getting the numbers for each macronutrient (protein, fats and carbohydrates).

We'll start with protein. To determine how much protein to consume, simply multiply your current body weight by 1. This will give you a protein intake of 1 gram per pound of body weight.

#### *Test Dummy's Protein Needs*

Current Body Weight X 1

205lbs x 1 = 205 grams

Next up is fat intake. For fat, multiply current body weight by 0.5. This will yield a fat intake of 0.5 grams per pound of body weight.

### *Test Dummy's Fat Needs*

Current Body Weight X 0.5

205lbs x 0.5 = 103 grams

Finally, carbohydrates, where the remaining caloric needs will come from. To find this number, calculate the total calories from protein and fat by multiplying the number of grams of each by their calorie values per gram. Protein has four calories per gram, while fat has nine.

### *Protein Calories*

205 grams X 4 calories

820 calories

### *Fat Calories*

103 grams X 9 calories

927 calories

1,747 calories combined from protein and fats.

Calories remaining for carbohydrates then would be:

3,060 calories – 1,747 calories = 1,313 calories

So we are left with 1,313 calories for carbohydrates, which have four calories per gram. Dividing 1,313 by four yields a carbohydrate intake of 328g of carbohydrates per day. A high number for a fat loss plan, especially as an endomorph, but you want to start with the most calories possible and make slow, incremental decreases as you go (hint: protein and fat stay consistent throughout while carbs get cut over time). Also, Test Dummy is very active and the least we want to do is start compromising lean body mass this early in the diet by cutting carbs too low and training hard. Remember, carbohydrates are eliminated on non-training days, so you'll have points throughout the week where fat loss is optimized.

So, then, splitting up that food intake over 5 meals (plus an [intra-workout shake](#)) that looks something like this on moderate carb (training) days.

### **MODERATE CARB DAY DIET**

Protein: 205 grams | Carbs: 328 grams | Fats: 103 grams (3,060)

#### *Meal 1*

Protein 40g

Fat 32g

Carbs 0g (trace from veggies)

### *Meal 2*

Protein 40g

Fat 32g

Carbs 0g (trace from veggies)

### *INTRA-WORKOUT*

Protein 10-15g (EAAs, Hydro Whey, PeptoPro or BCAAs)

Carbs 40-80g (varies depending on length and severity of workout)

### *Meal 3*

Protein 40g

Carbs 80g

Fat 8g

### *Meal 4*

Protein 40g

Carbs 80g

Fat 12g

### *Meal 5*

Protein 40g

Carbs 80g

Fat 12g

## **LOW CARB DAY DIET**

Protein: 200 grams | Carbs: trace from veggies | Fats: 160 grams (2,400 calories)

*Delay breakfast - drink only [power coffee](#) for the first hour you're awake.*

### *Meal 1*

Protein 40g

Fat 32g

Carbs 0g (trace from veggies)

### *Meal 2*

Protein 40g

Fat 32g

Carbs 0g (trace from veggies)

### *Meal 3*

Protein 40g

Fat 32g

Carbs 0g (trace from veggies)

### *INTRA-WORKOUT (If you choose to workout this day)*

Protein 10-15g (EAAs, Hydro Whey, PeptoPro or BCAAs)

Carbs 40-80g (varies depending on length and severity of workout)

### *Meal 4*

Protein 40g

Fat 32g

Carbs 0g (trace from veggies)

### *Meal 5*

Protein 40g

Fat 32g

Carbs 0g (trace from veggies)

Also on a day of your choosing, you'll carb load immediately after training (or HIIT) for three hours. This will effectively double your daily carb intake to 600+ grams. This satisfies you mentally, allowing you to look forward to this once-a-week treat night and not fall off the wagon the other six days of the week. I suggest this high carb day follow a low carb day and only be implemented after training that day.

## **HIGH CARB DAY DIET**

Protein: 200 grams | Carbs: 650 grams | Fats: 50 grams (3,850 calories)

### *Meal 1*

Protein 40g

Fat 16g

Carbs 0g (trace from veggies)

### *Meal 2*

Protein 40g

Fat 16g

Carbs 0g (trace from veggies)

### *INTRA-WORKOUT*

Protein 10-15g (EAAs, Hydro Whey, PeptoPro or BCAAs)

Carbs 40-80g (varies depending on length and severity of workout)



### *Meal 3*

Protein 40g

Carbs 325g

Fat 8g (try to choose low fat food sources)

### *Meal 4*

Protein 40g

Carbs 325g

Fat 8g

### *Meal 5*

Protein 40 g (a shake before bed - only if hungry)

### **Here's the calorie cycling approach:**

Monday - Train Legs | Moderate carb (3,060 calories)

Tuesday - Train Upper | Moderate carb (3,060 calories)

Wednesday - OFF DAY | Low carb except intra workout shake (2,400 calories)

Thursday - Train Legs | Moderate carb (3,060 calories)

Friday - Train Upper | Moderate carb (3,060 calories)

Saturday - OFF DAY | Low carb (2,400 calories)

Sunday - HIIT | High carb (3,850-4,000 calories)

See Dieting Tips section for tips on how to adjust diet as you go along based on goals. In the [Recommended Foods](#) chapter, I break down foods to eat and in what quantities to achieve the correct macro ratio. Note, depending on [training program](#) you choose, your off days will vary.

## **The Case Against Intermittent Fasting (With A Caveat)**

I'm asking for your trust here, as this goes against popular dogma. Dietary trends come and go, and for good reason. I'd advise against jumping on something that's a trend without much anecdotal experience behind it. The latest two – IIFYM (If It Fits Your Macros) and IF (Intermittent Fasting) – have wrinkles of good, effective strategies within them, but are not the best approach for the average person who picked up this book. You're not the genetically elite.

Intermittent Fasting, meanwhile, can lead to quick weight loss, but if you're eating twice a day and looking to drop fat down further, how do you continue to progress? Drop to one meal a day? There's no arguing the health benefits of fasting, I won't get into that here. But we're after optimal muscle gain. There's an element of IF in this program. Between your last meal of the day

(a few hours before bed) and a delayed breakfast, you're looking at half of every 24 hour cycle without food (i.e. 8 pm - 8 am). That'll serve your needs without compromising your goals (muscle and fat loss simultaneously).

The Endomorph Evolution diet would rather you spread your meals throughout the day. There's a good reason for this, one being optimal protein synthesis (hint: muscle gains) and it limits binge eating and allows for better nutrient timing.

The latest study I'll cherry pick for this purpose was recently published in the *Journal of Nutrition*. They split the study participants into two groups.

Each group was fed different quantities of protein in each meal, and protein synthesis (\*light bulb\* this is integral to growing muscle!) was measured throughout the day. One group ate the majority of its protein at dinner (63 grams of 90 grams total) while Group 2 spread its day's allotment over three meals equally – more so emulating the typical bodybuilding approach. Yes, it was three meals, but who eats 90 grams of protein? If you're an aspiring strength athlete or bodybuilder, the general rule of thumb is 1 gram per lb of bodyweight (i.e. 200 lb male = 200 grams of protein, which is better spread over more than three meals).

The results of their research? Which should come as no surprise, protein synthesis was greater in Group 2 by as much as 25% over the course of 24 hours. Essentially, then, Group 2 participants built 25% more muscle over 24 hours than Group 1. What this all means for you is simple – space your meals out and consume protein evenly throughout the day, rather than trying to scarf down a 16 oz. steak at dinner after starving yourself during the early part of the day.

I don't know about you, but I tend to over-eat if I don't structure my meals appropriately and weigh out my portions. Not eating for 16+ hours a day lends itself to binge eating later on (in my experience) and, quite frankly, those in search of optimal muscle gains should look at that model and question it. If food is fuel, why would you run on empty two-thirds of every 24 hour period? Not exactly the optimal environment for muscle gains, right?

There's always the case of the guy who can look amazing, regardless the diet or training strategies he employs. But that's not you! You wouldn't be searching the internet for diet and fitness tips if you had Ronnie Coleman genetics. Even some guys with average genetics can look good on IF, but they seem to forget the decade-plus of work in the gym and kitchen they put in to build the muscle they have in the first place. It's unlikely they're growing at the same pace they were before – but IF allows them to maintain and even drop a little fat.

If food prep is the issue, and you can't be bothered to throw a pile of chicken breasts in the oven once a week, that's why protein powder was created.

# Nutrient Timing

Thank God for science! It's not just calories in versus calories out anymore. Sure, that'll work strictly for weight loss, but if you're reading this book **you want to optimize fat loss while maintaining or even gaining muscle**. That requires a little more strategy than just consuming less than your basic daily calorie needs.

Throughout the day your body has periods where it is primed for fat burning and periods where it is primed for muscle growth. Essentially, these stages are what comprise your circadian rhythms, i.e. a fancy title for the rhythms your body goes through in any 24 hour period. One example of adhering to your circadian rhythms is having a consistent sleep schedule, but for this purpose we're focused on diet.

Upon waking, your body is primed for fat burning (if you let it happen). Rather than a big American breakfast of pancakes, bacon and all the fixings, you need to hold out on the carbohydrates and opt instead for a high fat, high protein breakfast. This may go against conventional wisdom, but believe me, it works, and knowing you're the type who looks at a pancake and grows an inch on your love handles, this is an important dietary strategy.

In the latter stages of a diet, you may delay breakfast and drink black coffee instead, but that is not necessary right now. Without carbs at breakfast, you don't get the insulin surge and subsequent mental lag. If your body can effectively switch between energy systems (using fat or carbs as fuel depending on the time of day) – otherwise known as metabolic flexibility – you'll better digest food and always be in an optimal environment to grow muscle and burn fat. When you adapt to this style of eating, keeping fat gains at bay is much easier.

Essentially, metabolic flexibility is the body's ability to switch efficiently between different energy sources (fats or carbs) depending on the time of day, your activity level requirements and so on.

It may take some time for your body to adjust to using fat as fuel during sedentary periods and carbs when push comes to shove, especially if you've been predominately carb reliant forever, but adhering to the diet principles as outlined will eventually get you there - as long as training is consistent and food choices are on the mark most of the time.

The Endomorph Evolution diet still advocates for performance carbs, but only when they're needed. When they are needed is in and around a heavy resistance training session, which sensitizes muscle tissues to carbohydrates. Holding out on carbs until your workout really primes

your body to absorb them where you want them to go – into your muscle cells, not fat cells. A hard workout leaves your muscle cells scrambling to grab all they can to build and repair muscle tissue. Too often this is where trainees go wrong – they cut out carbs completely, neglecting the growth opportunities carbs can provide around a workout without associated fat gain.

As outlined in the sample diet provided, depending on when you train, the first few meals before your workout are strictly comprised of proteins and fats. You only introduce carbs into the equation during the workout in the form of an intra-workout shake (more on that later). If you're on the [Beginner plan](#) listed later in the book, intra carbs aren't necessary for most people. You simply won't be burning a ton of muscle glycogen, nor will you be at the stage where you have a lot of muscle requiring refueling.

## Nutrient Density

The Endomorph Evolution diet emphasizes nutrient dense foods, because they are satiating, provide a lot of micronutrients (vitamins and minerals) and minimize blood sugar spikes and energy ebbs and flows.

When we talk nutrient density, we're referring to foods that have a lot of nutrition per calories. Animal products, particularly organ meats and muscle meats, are much more nutrient dense than most would expect, and in many cases, more nutrient dense than even fruits and vegetables, though the latter two are still very much a part of a healthy diet.

When trying to lose weight, foods that are satiating can fill you up without blowing up your caloric needs. For guys and gals with appetites for days, these foods are an integral piece of the dietary pie. We're talking foods with relatively high fiber content in many cases, while at the same time being low in calories. A win-win.

That's why staples in nearly every meal - especially during a fat loss phase - are lean protein sources and non-starchy, high fibrous vegetables like spinach, kale and broccoli. It's all about the broccoli, man. You'll see a list of [recommended food choices](#) later in the book.

*Disclaimer:* If you aren't buying produce at a local farmer's market, bear in mind the nutrition begins to deplete as soon as a plant is taken out of the ground. A lot of produce sold at large supermarket chains is grown hundreds, if not thousands, of miles away. So what's the solution? Buy from a farmer if you can, or opt for frozen fruits and vegetables (read the labels to ensure you're getting what you think you're getting) because in most cases they're flash frozen right after harvest, so there's not as much time for the nutrients to degrade.

For protein, opt instead for grass-fed meats instead of grain-fed, wild-caught fish instead of farmed wherever possible and eat extra lean sources if buying from the supermarket as the toxins found in animal products are primarily found in the fat content.

## Organic vs. Non-Organic

Mention the word “organic” and controversy soon erupts. The whole organic food movements has its avid followers, and just as many detractors, which makes it incredibly difficult as a consumer to weed through the bias and separate fact from fiction. But that’s where I come in (insert sarcasm here). My list is based largely on the reading of Cindy Burke’s book “To Buy or Not to Buy Organic” and through my own experience as a consumer. Here's an Endomorph Evolution diet top 4 list of when to buy organic, and when not to bother.

### Things To Buy Organic

*Beef:* Conventional grain-fed cows sit in a pile of their own feces, chomping on pesticide and fertilizer laced grain, getting jacked up on hormones. The goal of a feed lot is to get the cow as fat as possible in the shortest time possible. Grain wreaks havoc on a cows digestive system, they get sick and then get slaughtered, and you’re the beneficiary of that when it ends up on your dinner table. Fat cells suck up these chemicals like a sponge, so if you’re eating fattier cuts of meat the damage is even moreso. I recommend finding a local source for grass fed beef. These cows are healthier, forage on a natural diet of grass, and are leaner. Eat healthy meat to be healthy.

*Eggs:* Try to get eggs from chickens that are pasture raised. This means they get to roam outside and eat a natural diet of bugs, worms, insects, grass, etc. I know some will say “free run” just means they have access to the outdoors, doesn’t necessarily mean they utilize that privilege. My response is to, again, find a local source you trust and/or have visited in person.

*Strawberries:* These are notorious for chemicals, according to Cindy Burke’s book. Generally low hanging fruit get some of the worst pesticide treatment to ward off bugs. Don’t take any chances, buy organic.

*Spinach:* According to WebMD, “Spinach has high levels of pesticide residue — the USDA Pesticide Data Program found 57 pesticide residues in spinach. Buy organic or grow your own.” Spinach is cheap, even organically grown, so don’t risk it here.

### Things NOT to Buy Organic

*Pineapple:* You’ll notice a trend here in this list – the skin is so thick on a pineapple, it protects it



from contamination.

*Kiwi:* This fruit also has a shell that protects it from the bad guys fighting to get in, and has the nice bonus of having more vitamin C than an orange. There's been studies of late suggesting antioxidants like vitamin C aren't properly absorbed from supplement tablet form – whole food sources, as is often the case, are a much more effective way to meet your micronutrient needs.

*Bananas:* See above. Thick foreskin on a banana.

*Avocado:* A staple in my diet. Heart healthy fats and hormonal benefits (yes, those kind) make this a no-brainer, but if nothing else it's a good thickening agent in smoothies too.

There's plenty of research to show that organic fruits and vegetables are generally higher in nutrients. There is the Environmental Working Group's Dirty Dozen and Clean 15, which can help you decide further. Give them a read when you can.

## Intra Workout Nutrition

As promised, here's the section on an intra-workout shake. Note: please prioritize the rest of your meals. This isn't a catch-all which makes up for poor dietary choices the rest of the day, it's just a tool that's been shown to help in your pursuit of strength and muscle gain. Nothing more.

We've all seen the 160-pound soaking wet trainee who seemingly kills himself in the gym day-in and day-out, but his efforts to gain lean body mass are not being met.

Why is that? He may very well have drawn the short end of the stick in the genetics pool, but it's just as likely there are errors in his ways in and outside the gym. Hard training without the nutrition and rest to compensate will not yield optimal results.

One reason, though, may stem from a lack of nutrition before, during and after the workout, resulting in the mismanagement of cortisol.

By definition, cortisol is a glucocorticoid, a steroid hormone released to ensure the brain has ample supply of glucose (sugar), its preferred fuel source in situations where simple survival is paramount. Cortisol can promote glycogen breakdown in skeletal muscle (i.e. muscle wasting) when preferable energy supply isn't present. That's bad news if you're a bodybuilder or strength athlete looking to optimize lean body mass gains, get stronger and faster and so on.

The heavier and harder you work, the greater the cortisol release. If you don't manage that cortisol release, you'll literally be spinning your wheels.

Assuming most of you train hard, you can bet that each session you work out is substantially

raising cortisol. That's not necessarily a bad thing, as elevating cortisol has been shown to be a significant predictor of lean body mass accumulation, suggesting a correlation between hard training and muscle gains (duh!) so simply avoiding the gym altogether isn't a better option! That's not what I'm getting at here. You most definitely need to get the work in, but it's how you manage that cortisol during and after the workout that's key to building muscle over and above your current level.

## **The Cortisol Management Solution**

So, how then, do you train with the necessary intensity to illicit the results you want while keeping cortisol at bay? An intra workout drink.

This isn't particularly new information, but one study conducted in the late 90s found 50 grams of pure carbohydrate (Gatorade) in a workout drink consumed during a resistance training (lifting weights) session completely eliminated cortisol elevations compared to a control flavored drink. Subjects within this particular study with the lowest cortisol – and the greatest muscle gains – were entirely from the group who drank the Gatorade. Whereas subjects tested with the highest cortisol showed the least gains (one placebo participant on the controlled drink even LOST muscle size during the study).

Carbs are “muscle sparing” in this case, a readily available fuel source for your muscles during intense training. Without that supplementation, and once your storage of glycogen is eliminated, it stands to reason muscle protein breakdown will occur to fuel the remainder of the training session.

## **What should you do?**

This is not to say you need to buy one of those “cutting edge” intra-workout supplements that are all the rage right now. No matter how the marketers spin the benefits of “high molecular weight” carbs etc., they all break down to glucose in the end. Sure, there are more optimal options, but they cost more. A drink containing cycle dextrins is going to be the best on the market because of its low osmolality, but you can decrease the osmolality of Gatorade just by diluting it in a larger volume of fluid. I.E. Get a big litre water jug and mix in Gatorade powder. Some like to add amino acids (protein to the workout shake) but that's personal preference too. If you have the cash, by all means go for it, cyclic dextrins are an expensive but highly effective option for your performance carbohydrate of choice, and branched-chain amino acids (BCAA), hydrolyzed casein or essential amino acids (EAA) have some science backing their use as your protein source of choice.

Note: BCAAs (particularly leucine) trigger protein synthesis and draw from existing amino acid

pools to use those amino acids to rebuild and repair the muscle. For this reason, taking BCAAs on an empty stomach is not advisable because there are no amino acid pools to draw from. Deep into a workout may present the same complications. Whereas all amino acids are present in EAAs and they exhibit a synergistic effect on the rebuilding process. Essentially they work better.

In relatable terms, think of it as a bigger team pulling for you versus BCAAs. That said, Hydro Casein is probably the best protein source option because of their lightning fast digestibility, but again cost plays into your decision here.

That all said, a little Gatorade powder mixed in water will do the trick (reducing or eliminating cortisol) all the same if you're on a budget.

Also, it's important to assess your DOMS (delayed onset muscle soreness) the next day. If you're several weeks into your training program and feeling crippled days after the workout, you may need to increase the amount of your intra workout carbs - assuming sleep and stress outside the gym are being managed properly.

## Recommended Foods

### **Fat: (Examples of 8g fat)**

Natural Peanut Butter (1 tbsp)

Almond Butter (1 tbsp)

Organic and/or Grass-Fed Butter (1 tbsp)

Extra Virgin olive oil (1 tsp)

Extra Virgin coconut oil (1 tsp)

Plain or roasted nuts (no sugar added version) (1/4c nuts = 16g fat)

90% or higher dark chocolate (read label - 1.5 squares = 8g fat)

### **Carbs: (Examples of 40g carbs)**

Oatmeal (2/3 cup raw weight)

Sweet potato (6 oz cooked)

\*Brown rice (5 oz cooked or 1 cup) *\*Anti-nutrients create digestive issues for some. Use with caution.*

White rice (5 oz cooked or 1 cup)

Fruit (berries, apples, grapefruit, banana) Approx. 2 small apples, 1 medium sized grapefruit, 1 cup berries, 1 medium banana

Vegetables (Add in where you can)

### **Protein: (Examples of 40g protein)**

*Generally speaking, one ounce of cooked lean meat has 7 grams of protein (one ounce raw weight has 6 grams of protein) but it can vary.*

Chicken breast (6 oz cooked)

Turkey (6 oz cooked)

Extra lean beef - preferably grass-fed (5.5 oz)

Fish (7 oz)

Eggs (1 egg = 6g protein / 5g fat)

Protein powder (varies by manufacturer - generally 1.5 scoops powder)

### **Cheat Carbs (low fat, low fiber, high GI generally)**

Low fat, high sugar sweets (skittles, pop-tarts)

Bagels, french toast, waffles etc. with syrup

Breakfast cereals

Low fat ice cream

### **Example Meals:**

#### **Meal with carbs**

6 oz cooked chicken (40g protein)

2 cup cooked rice (80g carbs)

1 tsp extra virgin coconut oil mixed in (8g fat)

Handful of spinach

#### **Meal with NO carbs**

5.5 oz extra lean ground beef (wash under tap to trim fat unless grass-fed) (40g protein)

2 tbsp olive oil on a salad w/ lots of green veggies (28g fat not incl. fat in beef)

#### **Meal with NO carbs "greens smoothie"**

1 scoop protein powder (25g protein)

3 free run eggs raw\* (18g protein/15g fat)

1/2 avocado (14g fat)

Handful frozen or fresh kale

2-3 ice cubes

1 tbsp cocoa (or cacao) powder

*\*May want to cook eggs. I've never had a problem, but you run the risk.*

#### **Power Coffee**

Dark roast coffee

1 tsp grass-fed, organic butter

Blend

# Mind Your Health

A ripped body is great and all, but if you aren't healthy on the inside the house of cards will crumble eventually. Living your life looking like the way you want to look, being very responsible with your health for your benefit and your loved ones' benefit is a big responsibility. If you're in your 40s, get regular bloodwork and physicals, eat healthy, and exercise regularly. Those are givens. But it doesn't mean you can't start your due diligence in your 20s and 30s either, and in fact you should.

It's the tortoise and the hare premise here. Achieving success in fitness is a marathon, not a sprint. You can't bypass the hard work - sure, knowing a more efficient way will get you there faster, but results don't happen over night. If you try to rush things, you might get the body you want faster but you'll have sacrificed in other areas. We want your fitness pursuits to fit within your lifestyle, not be the sole reason for living. Fitness should be as much about feeling good and healthy as it is about looking good and feeling sexy.

## How can you pursue fitness AND health concurrently?

Apart from regularly training hard, doing some cardio, and sleeping properly, here are a few steps you can make to mind your health along the way.

### Mind Your Food Choices

Opt for healthier food options first and foremost. **Grass-fed beef** comes from cows that have been fed their normal diet consisting of grass. The majority of store-bought beef is grain fed, and grain strips the beef of its healthy fats, including a perfect ratio of omega 3 to omega 6 and CLA (Conjugated Linoleic Acid).

Buy **free range eggs**. Chickens that have been free to roam around, and feast on their natural diet, lay the highest quality eggs. A healthy chicken lays a healthy egg. Makes sense, no? These are a little pricier, but the benefits in cholesterol profile improvement and fat soluble vitamin content more than make up for the slight hit to your pocketbook. You'll know the difference once you see the yolk—which is a dark orange colour, while non free-range eggs, the kind birthed by chickens who live a life confined to a cage, are generally pale yellow in appearance.

Try to buy **wild caught salmon** instead of farmed (hard to tell with packaging these days). Regardless, try to avoid anything “Farm Raised.” These salmon are treated like chickens in cages, only the aquatic version in pens, and fed an unnatural diet of corn meal and even chicken feces pellets. They aren't even orange until artificial dyes and colours are added. You'll notice wild caught has more of a reddish hue than the bright pink farmed variety, so look for that.

Buy **organic fruits and vegetables** when it makes sense. See above chapter [Organic vs. Non-Organic](#).



## Mind Your Blood Pressure

*Watch Sodium Intake:* Ensure that you are not consuming an excessive amount of sodium, relative to your potassium intake, and that you are drinking enough water to clear excess sodium from the body. However, don't eliminate salt completely as those training hard (sweat loss) require more salt than the average sedentary person!

*Do Regular Cardio:* Perform enough cardiovascular exercise to keep blood pressure in range and monitor your readings regularly. It's called the silent killer for a reason. It's hard to self-diagnose high blood pressure, so monitor accordingly.

## Mind Your Gut Health

*Eat Fermented Foods:* Fermented foods were far more common among our ancestors' diets, but have lost their way over the years. Look for kimchi and raw sauerkraut to balance microflora in your gut. The benefits may go beyond immune boosting and disease prevention. A study in the European Journal of Clinical Nutrition found that obese people reduced their abdominal fat by 5 percent when they added fermented foods to their diet for 12 weeks.

*Eat Prebiotic/Probiotic Fiber:* Raw veggies are high in prebiotic fiber, with the best sources coming from raw garlic, leeks and onion. If veggies aren't on your priority list, resistant starch is a fermentable insoluble fiber found in white rice and potatoes. Note: They must be cooked first, then cooled before consuming. The cooling packs the substance resulting in the formation of resistant starch. If you're the type who mass cooks on Sundays and brings tupperware meals with you everywhere you go, you're doing yourself a service! You can re-heat the rice later and still maintain resistant starch, so don't force it down cold if that's not your style. Also of particular importance, a low carb diet (popular nowadays) starves your gut since it's generally low in insoluble fiber, so some type of supplementation would be advised. Look for oligosaccharides – found in abundance in Quest Bars as one example. Meanwhile, probiotic fiber can be found in yogurt – greek yogurt is my personal favourite – but be leery of added sugar varieties. An optimal protein-to-sugar ratio on the nutritional facts is 2:1 (protein to sugar).

## Mind Your Kidney Health

*Skip the Soda and Painkillers:* Kidney damage can result from overuse of anti-inflammatory drugs like ibuprofen, from excessive soft drink consumption (both full sugar and sugar-free) and from exposure to certain environmental toxins and radiological materials. Make sure you are a proactive consumer, read food labels, and keep an eye on your sugar and sodium intake. Typically, sodium intake need only be monitored by those who already suffer from hypertension, as excess sodium intake can exacerbate the situation. Your sodium requirements will vary depending on your activity levels on a day-to-day basis, as much more will be required on particularly active days when you need to be at peak performance in the gym or on the sports field.

I loathe the use of words like cleanse, detox and the like that we're bombarded with in the fitness industry. Most of it is just another means to cleanse your wallet of hard-earned cash. However, every few months, I like to run a "kidney cleanse" simply by buying real cranberry juice (not the from concentrate sugary mixes out there). You drink a cup of this a day (watered down to alleviate some of the bitterness) and use up a bottle over a period of a week to 10 days. The brand I'm most familiar with is Knudsen's Just Cranberry.

*Drink Water:* This one may seem like a no-brainer, but it's extremely important! Listen to your body. If your mouth is parched and you're feeling lethargic, drink up! Straight water is the way to go here. Staying hydrated will help your kidneys function properly. Your urine should be straw-coloured or paler still, almost clear. If it's any darker that's a telltale sign of dehydration. During hot weather in the summer, when travelling in hot countries or when exercising strenuously, you need to drink more water than usual to make up for the fluid lost by sweating. Listen to your body! It knows you best.

### **Mind Your Liver Health**

Do you like to abuse the s-h-i-t out of your liver with aspirin and alcohol? Nothing like a binge drunk fest followed by the morning after hangover cure of two double-strength aspirins and a glass of water? The liver is a resilient organ, sure, but it's also a documented fact that a healthy functioning healthy liver burns more body fat than one working at half capacity.

A healthy liver cleanses your system. In the simplest of terms, it takes out the trash our environment bombards us with through the food and toxins we subject it to on a daily basis.

How do you ensure your liver functions as it should? The obvious first steps towards optimal liver health mean cutting out poor quality foods, not drinking excessive amounts of alcohol or popping NSAIDs (painkillers such as advil and tylenol) like candy, but there's also a few remedies you can implement today that'll go a long way towards boosting operations as well.

*Lemon Juice:* REAL lemon juice, specifically the phytochemical d-limonene found in lemons, acts as a liver tonic and assists in digestion by clearing the detoxification pathways and helping the liver produce more bile. Who cares if lemons have slightly more sugar than a strawberry (I hear this too often), it's a negligible difference. Buy real lemons and squeeze the juice of one directly into a glass of water. The recommendation is to mix it in warm water or tea, as warm water acts as a vasodilator in the stomach, increasing metabolic rate. Start your day off with this and make a habit of it. Do not buy the pre-packaged stuff that comes in that pretty plastic lime or lemon.

*REAL Cranberry Juice:* Here it is again! The real stuff is rather tart and it'll cost more than that sugar-laden version with the fancy label. Look for a brand that's 100% juice. The brand I buy is Knudsen's Just Cranberry (I feel like I should be getting royalties or something). There should be less than 20 grams of carbohydrates per serving, with half those coming from sugar. The fake stuff has 30-40 grams of sugar per cup. Stay away.

There are a number of over-the-counter liver remedies that have proven to work (Liv52 for one), but unless you're popping oral steroids or like to get your drunk on, the above natural options will serve you just fine in most cases. That said, get regular bloodwork to ensure yours is operating at optimal efficiency. Your basic liver enzymes, AST and ALT, can be tested to see if they are in a healthy range. For these to come back accurate, you need to avoid strenuous exercise at least three days prior to the test. Weight training can falsely raise your readings.

## **Mind Your Inflammation**

This word gets thrown around a lot, and for good reason. You need to stay on top of inflammation as it's a risk factor / contributor to a lot of today's health problems.

*Anti-Inflammatory Diet:* Diets high in refined sugars and high glycemic index carbohydrates have been shown to cause inflammation. Eating complex carbohydrates and combining macronutrients to slow digestion is important in controlling inflammation. Because most diets are already overly high in omega-6 fatty acids, eating foods high in omega-3 fatty acids to counteract that imbalance will reduce inflammation, notably wild-caught fish.

*Anti-Inflammatory Supplements:* [Fish Oil](#) supplements contain the omega-3 fatty acids DHA and EPA. As a general rule of thumb you should supplement between 2 and 3 grams of omega-3s per day. Look at the label and ensure a high amount of EPA and DHA is present per capsule, otherwise you'll be taking 9-10 capsules to meet your requirements.

## **Mind Your Adrenal Health**

The adrenal gland is part of the endocrine system that produces several important hormones, notably for your purposes cortisol and testosterone. You want these babies running optimally!

*Manage Stress:* You're putting your body through a lot of stress in the gym, so don't compound things by piling onto it with exterior stressors. Meditate, take the odd hot bath or sauna, and don't let too many (or any) life suckers into your life. Zen, baby.

*Eat to Recover:* The Endomorph Evolution diet is setup to maximize recovery from training sessions with carbs and protein around the workout.

*Deload:* When you feel like crap, don't "train through it" and hope it gets better. Your body knows best. That's not to say you should be a pussy and use any little excuse as a reason to skip a workout, but be smart about this. Longevity is the name of the game.

The modern day mass food processing is having a direct impact on your health, whether you like it or not. It may not be immediate, but over time you'll pay the consequences for neglecting your gut and organ health. The gut is responsible for a major part of your immune system. Are you regularly getting sick and run down? May want to address your gut health before turning to antibiotics!

If we weren't at the top of the food chain and were put into factories and fed low-grade chicken feed (GMO corn) coupled with a sedentary lifestyle, clearly our health and the health of those above us consuming us for food would worsen over time! That's essentially what we're doing with our livestock. Food for thought.

## Mind Your Health Cliff Notes:

- Opt for organic grass fed beef, wild-caught fish and free range eggs
- Stay away from refined foods and sugars where possible
- Eat fermented foods and leafy greens high in fiber
- Get semi-regular bloodwork and address deficiencies through diet/supplements
- Minimize NSAID (advil, tylenol) use
- Eat fish or supplement with [fish oil capsules](#)
- Monitor your blood pressure and minimize salt intake if out of range
- If you never see the sun, supplement with [vitamin D](#)
- Be happy. Psychological stress can do as much damage as physical stress can.
- Listen to your body and take time away from the gym when beat up.
- Regularly consume fresh-squeezed lemon juice in water and/or real 100% cranberry juice
- Limit consumption of soda (both diet and regular). Canned drinks have been linked to BPA exposure for one, and two, your kidneys will thank you.

# **PART THREE: Live For The Grind**

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# Training Programs

Now, here's the fun part... if you're willing to embrace the grind! And that's a big "if" nowadays. Too many people go to the gym solely to let their online networks know they're there, but are they really putting in the work that results in, well, results? With apologies to Woody Allen, 80% of success in the gym isn't just showing up, as Bryan Krahn alludes to in his strongly-worded piece on the pussification of today's gym goer. You'll have to google it. Read it and get inspired – it just might help you unclench your balls hidden within your undercarriage.

The programs that follow are built to turn you into a bad ass. There is a method to the madness, but to say it's all based on optimal science would be a lie. Do you think Arnold Schwarzenegger trained solely based on the results of a peer-reviewed scientific study? No. He got in there and did the work. It's great that science is starting to catch up with the experience of bodybuilders - with studies actually looking at guys and girls who work out with some form of intensity - but there's never only one way to skin a cat and you're selling yourself short if you refuse to do something that hasn't been backed by science.

Cut the chit back, put your headphones on and go to work. You get what you put into it, and if your gym sessions are half-assed the results will reflect that.

You have to get in touch with how your body feels. Learn how far you can push yourself. No program will work for you if you aren't engaged mentally ready to kill it. That all said, these training programs are built to optimize recovery for the NATURAL athlete. Training volumes are an individual variable, but adding steroids to the mix can significantly improve your recovery and subsequent volume capacity. I don't specialize in training enhanced athletes, so if you are you can probably extend beyond my recommendations.

## Key points:

*Train with a focus on tension:* Don't focus on moving the weight from Point A to Point B, rather focus on working the specific muscles you're targeting with that exercise! When you don't train with tension, your joints and ligaments take on the stress instead of the muscles. Some call it the mind-muscle connection, and that's definitely something that takes time to get a feel for but using weights that you can control (not weights your ego thinks it can control) safely will go a long way.

*Train in hypertrophy rep ranges:* Though I think the odd push to see your max lifts in the 1-3 rep range are OK, the Endomorph Evolution isn't for powerlifters. You want to train in an optimal environment for muscle gains, and 8-12 reps per set is generally where you want to be for hypertrophy. It's still good to keep some variety in each workout so you aren't limiting yourself to one range (and getting the adaptations that go with that), but you'll stall out early if every workout is focused on max lifts. Besides, volume training will help you metabolically, and as an endomorph you want that!



## Beginner Program *(less than 3 years training experience)*

In the beginner workout, you'll train each muscle group once per week and ramp up the training volume as you go. Working sets refers to those where you start to grind on the last rep. Depending on how heavy you're lifting (or how old you are), at least 2-3 warm-up sets should proceed the working sets for each exercise, notably your first for each muscle group.

Week 1 and 2 - 2 working sets per exercise.(Phase 1)

Week 3 and 4 - 3 working sets per exercise. (Phase 2)

Week 5 and 6 - 4 working sets per exercise. (Phase 3)

Week 7 and 8 - Continue with 4 working sets per exercise but add in drop sets once per muscle group.

Week 9 - Take the week off from training or just do light cardio a few times. (Some may need this rest week after Week 6, others can go for 12 weeks or more before they need it).

Week 10 and 11 - 2 working sets per exercise (restart cycle).

**Train four times per week (choose days most convenient for you):**

**Monday - Chest & Shoulders**

**Tuesday - Legs**

**Thursday - Arms**

**Friday - Back**

Rep ranges are 8-12 for upper body and 10-15 for lower body generally speaking, but there's no hard rule there. The generally accepted hypertrophy (muscle gain) range is 8-12 but do what works best for you and mix in some higher rep (or lower heavy stuff) once in awhile.

### Chest & Shoulders

| EXERCISE                  | WORKING SETS/REPS PER PHASE |
|---------------------------|-----------------------------|
| Dumbbell Bench Press      | 2/8-10   3/8-10   4/8-10    |
| Incline Bench Press       | 2/8-10   3/8-10   4/8-10    |
| Twisting Dumbbell Press   | 2/8-10   3/8-10   4/8-10    |
| 6 way laterals            | 2/8-10   3/8-10   4/8-10    |
| Dumbbell Presses overhead | 2/8-10   3/8-10   4/8-10    |
| Abdominal Crunch Machine  | 2/45 sec.                   |

### Legs

| EXERCISE                     | WORKING SETS/REPS PER PHASE |
|------------------------------|-----------------------------|
| Lying Leg Curls (hamstrings) | 2/12-15   3/12-15   4/12-15 |
| Leg Extensions               | 2/12-15   3/12-15   4/12-15 |
| Squats                       | 2/8-10   3/8-10   4/8-10    |
| Lunches                      | 2/12-15   3/12-15   4/12-15 |
| Stiff-legged dead lifts      | 2/8-10   3/8-10   4/8-10    |
| Standing Calf Presses        | 2/8-10   3/8-10   4/8-10    |

## Arms

| EXERCISE              | WORKING SETS/REPS PER PHASE |
|-----------------------|-----------------------------|
| Seated Dumbbell Curls | 2/8-10   3/8-10   4/8-10    |
| Rope Pushdowns        | 2/8-10   3/8-10   4/8-10    |
| Machine Bicep Curls   | 2/8-10   3/8-10   4/8-10    |
| Dips                  | 2/8-10   3/8-10   4/8-10    |
| Preacher Curls        | 2/8-10   3/8-10   4/8-10    |
| Skull Crushers        | 2/8-10   3/8-10   4/8-10    |

## Back

| EXERCISE            | WORKING SETS/REPS PER PHASE |
|---------------------|-----------------------------|
| T-Bar Rows          | 2/8-10   3/8-10   4/8-10    |
| Wide Grip Pulldowns | 2/12-15   3/12-15   4/12-15 |
| Pullovers           | 2/8-10   3/8-10   4/8-10    |
| Barbell Rows        | 2/8-10   3/8-10   4/8-10    |
| Hyperextensions     | 2/12-15   3/12-15   4/12-15 |

## Beginner Program Cliff Notes:

- Each muscle is trained once per week
- Volume increases every two weeks
- Progressive overload is the focus (trying to add weight to the bar each week in small increments). I.E. Once you get a weight for more than 10 reps on your heaviest working set, try to increase the poundage next time that exercise is done the following week.
- Do 1-3 fat loss circuits / week (see [Fat Loss Circuits](#) section at back) depending on goals
- Every 6-12 weeks (depending on how you feel), take a week to ramp down the volume or stay out of the gym.

## Intermediate Program *(less than 5 years training experience)*

The Intermediate Program is all about frequency. You'll train every muscle group twice per week at moderate volumes, three days on, one day off. It's important to keep your volume low to manage recovery working out this often.

Stick to 3-5 working sets per muscle group. After warm-up sets, you start with the heaviest weight you can manage for 8-10 reps, rest for 45-60 seconds and drop the weight by 15-20% then rep out 8-10 again, rest for 45-60 seconds, drop the weight another 15-20%, rinse and repeat. It's a reverse pyramid approach. There are three workout splits that you'll do in order, rest one day, then repeat the cycle.

You stick mostly to compound exercises, i.e. rows, bench press, squats etc. However, if a movement doesn't feel right for your own biomechanics, don't do it!

*Train six times per week*

**Monday - Chest, Shoulders & Triceps**

**Tuesday - Legs**

**Wednesday - Back & Biceps**

**Thursday - OFF**

**Friday - Repeat**

#### **Chest, Shoulders & Triceps**

| EXERCISE            | WORKING SETS/REPS        |
|---------------------|--------------------------|
| Decline Bench Press | 3/8-10 (reverse pyramid) |
| Side Laterals       | 3/8-10                   |
| Weighted Dips       | 3/8-10                   |
| Cardio              | 10 minutes               |

#### **Legs**

| EXERCISE                | WORKING SETS/REPS        |
|-------------------------|--------------------------|
| Squats                  | 3/8-10 (reverse pyramid) |
| Lunges                  | 3/8-10 (per leg)         |
| Abductor machine        | 3/12-15                  |
| Standing Calves         | 3/8-10                   |
| Stiff-legged dead lifts | 3/8-10                   |

#### **Back & Biceps**

| EXERCISE                | WORKING SETS/REPS |
|-------------------------|-------------------|
| Pull Ups                | 3/8-10            |
| Bent Over Dumbbell Rows | 3/8-10            |
| Dumbbell Curls          | 3/8-10            |
| Decline Sit Ups         | 3/12-15           |

### **Intermediate Program Cliff Notes:**

- Each muscle is trained twice per week
- Volume remains constant, but progressive overload is the focus (trying to add weight to the bar each week in small increments). I.E. Once you get a weight for more than 10 reps on your heaviest working set, try to increase the poundage next time that exercise is done the following week. This is how progressive overload works, and can be effective for intermediate trainers who aren't throwing around massive weights just yet and have room to keep adding weight to the bar.
- Do short, fat loss circuits 1-3 times per week (skip these the first two weeks as you adjust to training volume)
- Every 8-10 weeks (depending on how you feel), take a week to ramp down the volume or stay out of the gym completely.

## **Advanced Program** *(more than 5 years training experience)*

In the advanced program, you'll hit each muscle group twice per week at higher volumes than you'd see in the beginner or intermediate programs.

In Phase 1, you'll aim for six working sets per muscle in each workout, progressing to nine sets per workout in Phase 2, and tapping out at 12 sets per muscle in Phase 3 (with intensity techniques such as drop sets, widowmakers and super sets added in). Note: smaller muscle groups (arms, shoulders) get less volume (going from 6 sets to 9 sets) and 6 sets to 8 sets on power and strength days for upper/lower.

The volume and intensity achieved in weeks 5 and on can only be kept up for so long - that varies by individual. Some can go at full intensity up to 12 weeks (even some more than that), while others will have to take a week break as early as week 6-8 and re-work up their volume starting fresh. It depends on individual recovery abilities, stress and sleep levels etc. You'll have to assess things as you go!

### *Train five times per week*

**Monday - Legs (Power and Strength)**

**Tuesday - Chest, Shoulders & Back (Power & Strength)**

**Wednesday - Arms (Volume)**

**Thursday - Legs (Volume)**

**Friday - Chest, Shoulders & Back (Volume)**

### **Power & Strength Days breakdown like this:**

- A. Pre-pump exercise (warm joints and get blood flowing)
- B. Power exercise (moderate weight, explosive concentric)
- C. Strength exercise (work up to a 6RM set)
- D. Stretch exercise (drive blood into the worked muscles)

#### **Ex. QUADS/HAMS**

Lying Leg Curls (pre-pump hamstrings)

Smith Squats (explosive concentric)

Squats (keep adding weight until 6 RM)

Dumbbell Stiff-legged deadlifts (stretch hamstrings)

### **Hypertrophy Days (for each muscle group):**

- A. Pre-pump exercise
- B. Serious pump exercise (heavier weight, sets of 15-20 generally)
- C. "Better than sex" pump exercise (moderate weight, slow negatives, sets of 20+)

#### **Ex. QUADS**

Seated hamstring curls (pre-pump hamstrings)

Leg Presses (sets of 15-20 with heavy weight - maximum pump)

Leg Extensions (sets of 20-30 with moderate weight - feel the burn and the pump "better than sex")

## PHASE 1 - WEEKS 1-2 (6 sets per muscle group)

### Legs (Power & Strength)

| EXERCISE                        | WORKING SETS/REPS |
|---------------------------------|-------------------|
| Lying Leg Curls                 | 3x10-12           |
| Goblet Squats or Leg Extensions | 3x10              |
| Squats                          | 3x10              |
| Stiff legged deadlifts          | 3x8-12            |
| Standing Calves                 | 3x10              |

### Chest, Shoulders & Back (Power & Strength)

| EXERCISE                              | WORKING SETS/REPS |
|---------------------------------------|-------------------|
| Hammer Strength Machine Press         | 3x10-12           |
| Incline Barbell Bench Press           | 3x6-8             |
| Front Dumbbell Raises                 | 3x12-15           |
| Dumbbell Overhead Presses (DB or BB)  | 3x8-10            |
| T-Bar Rows                            | 3x10              |
| Pulldowns with limited ROM (partials) | 3x10              |

### Arms (Volume)

| EXERCISE                            | WORKING SETS/REPS |
|-------------------------------------|-------------------|
| Dumbbell Curls                      | 3x10-12           |
| Rope Pushdowns                      | 3x10-12           |
| Preacher Curls                      | 3x8-10            |
| Skullcrushers                       | 3x8-10            |
| Machine Curls with cable            | None in Week 1-2  |
| Close-grip Push-ups (feet elevated) | None in Week 1-2  |

### Legs (Volume)

| EXERCISE                               | WORKING SETS/REPS |
|--|-------------------|
| Seated Leg Curls (emphasize hamstring) | 3x10              |
| Abductor machine                       | None in Week 1-2  |
| Goblet Squats                          | 3x12-15           |
| Leg Extensions                         | 3x20              |
| Hyperextensions (emphasize hamstring)  | 3x15-20           |
| Standing Calves                        | 3x10              |

### Chest, Shoulders & Back (Volume)

| EXERCISE                              | WORKING SETS/REPS |
|---------------------------------------|-------------------|
| Dumbbell Presses with twist           | 3x10              |
| Hex Presses                           | 3x10              |
| Wide Grip Push-ups                    | None in Week 1-2  |
| 6 Ways                                | 3x10              |
| Side Partials with Dumbbells          | 3x35              |
| Dumbbell Rows (same time)             | 3x10              |
| Close-grip Cable Rows                 | 3x10              |
| Pulldowns with limited ROM (partials) | None in Week 1-2  |

## PHASE 2 - WEEKS 3-4 (6 sets on P/S Days, 9 sets on Hypertrophy Days)

### Legs (Power & Strength)

| EXERCISE                                    | WORKING SETS/REPS |
|---|-------------------|
| Lying Leg Curls (emphasize hamstrings)      | 3x10-12           |
| Smith Machine Squats (explosive, not heavy) | 3x8               |
| Squats                                      | 3x10              |
| Stiff legged deadlifts                      | 3x8-12            |
| Standing Calves                             | 3x10              |

### Chest, Shoulders & Back (Power & Strength)

| EXERCISE                                      | WORKING SETS/REPS |
|---|-------------------|
| Hammer Strength Machine Press                 | 3x10-12           |
| Incline BB Bench Press (explosive, not heavy) | 3x8               |
| Front Dumbbell Raises                         | 3x12-15           |
| Dumbbell Overhead Presses                     | 3x10              |
| T-Bar Rows                                    | 3x10              |
| Underhand Grip Pulldowns                      | 3x10              |

### Arms (Volume)

| EXERCISE                            | WORKING SETS/REPS |
|-------------------------------------|-------------------|
| Dumbbell Curls                      | 3x10-12           |
| Rope Pushdowns                      | 3x10-12           |
| Preacher Curls                      | 3x8-10            |
| Skullcrushers                       | 3x8-10            |
| Machine Curls with cable            | 3x12-15           |
| Close-grip Push-ups (feet elevated) | 3x12-15           |

### Legs (Volume)

| EXERCISE                               | WORKING SETS/REPS |
|--|-------------------|
| Seated Leg Curls (emphasize hamstring) | 3x10              |
| Abductor machine                       | 3x12-15           |
| Leg Presses                            | 3x15-20           |
| Leg Extensions                         | 3x20              |
| Hyperextensions (emphasize hamstring)  | 3x15-20           |
| Standing Calves                        | 3x10              |

### Chest, Shoulders & Back (Volume)

| EXERCISE                              | WORKING SETS/REPS |
|---------------------------------------|-------------------|
| Dumbbell Presses with twist           | 3x10              |
| Hex Presses                           | 3x10              |
| Wide Grip Push-ups                    | 3x15              |
| 6 Ways                                | 3x10              |
| Side Partial with Dumbbells           | 3x30              |
| Band Pull Aparts                      | 3x15              |
| Dumbbell Rows (same time)             | 3x10              |
| Close-grip Cable Rows                 | 3x10              |
| Pulldowns with limited ROM (partials) | 3x10              |

## PHASE 3 - WEEKS 5+ (8 sets on P/S Days, 12 sets on Hypertrophy Days)

### Legs (Power & Strength)

| EXERCISE                                    | WORKING SETS/REPS  |
|---|--------------------|
| Lying Leg Curls                             | 4x10-12 + DROP SET |
| Smith Machine Squats (explosive, not heavy) | 4x8                |
| Squats                                      | 4x10 + WIDOWMAKER  |
| Stiff legged deadlifts                      | 4x8-12             |
| Standing Calves                             | 4x10 + PARTIALS    |

### Chest, Shoulders & Back (Power & Strength)

| EXERCISE                                      | WORKING SETS/REPS |
|---|-------------------|
| Hammer Strength Machine Press                 | 4x10-12           |
| Incline BB Bench Press (explosive, not heavy) | 4x6-8 + DROP SET  |
| Front Dumbbell Raises                         | 4x12-15           |
| Dumbbell Overhead Presses                     | 4x10              |
| T-Bar Rows                                    | 4x10 + WIDOWMAKER |
| Pulldowns with limited ROM (partials)         | 4x10              |

### Arms (Volume)

| EXERCISE                            | WORKING SETS/REPS  |
|-------------------------------------|--------------------|
| Dumbbell Curls                      | 3x10-12 + PARTIALS |
| Rope Pushdowns                      | 3x10-12 + PARTIALS |
| Preacher Curls                      | 3x8-10             |
| Skullcrushers                       | 3x8-10             |
| Machine Curls with cable            | 3x12-15 SUPERSET   |
| Close-grip Push-ups (feet elevated) | 3x12-15 SUPERSET   |

### Legs (Volume)

| EXERCISE                               | WORKING SETS/REPS |
|--|-------------------|
| Seated Leg Curls (emphasize hamstring) | 4x10 + PARTIALS   |
| Abductor machine                       | 4x12-15           |
| Leg Presses                            | 4x15-20           |
| Leg Extensions                         | 4x20              |
| Hyperextensions (emphasize hamstring)  | 4x15-20           |
| Standing Calves                        | 4x10              |

### Chest, Shoulders & Back (Volume)

| EXERCISE                              | WORKING SETS/REPS |
|---------------------------------------|-------------------|
| Dumbbell Presses with twist           | 4x10 SUPERSET     |
| Hex Presses                           | 4x10 SUPERSET     |
| Wide Grip Push-ups                    | 4x12-15           |
| 6 Ways                                | 3x10              |
| Side Partial with Dumbbells           | 3x35              |
| Band Pull Aparts                      | 3x10              |
| Dumbbell Rows (same time)             | 4x10              |
| Close-grip Cable Rows                 | 4x10              |
| Pulldowns with limited ROM (partials) | 4x10              |

## Advanced Program Cliff Notes:

- Each muscle is trained twice per week
- Increase Volume every 2-3 weeks, working up to 12 sets per workout on volume days in phase 3
- For each muscle group, add at least one intensity technique per week in Week 5+. See [intensity technique](#) chapter.
- Every 8-12 weeks (depending on how you feel) take a week to ramp down the volume or stay out of the gym completely and then start fresh at Week 1-2 volume again.
- It's more important to increase the volume as outlined than try to add weight to the bar each week. At an advanced level, the poundages are not going to progressively go up forever (otherwise elite bodybuilders would be bench pressing 1,000+ lbs). Use weights that you can rep out with good form, and only bump it up if 10+ reps are easy.
- Please note many of the exercises listed are interchangeable with other comparable movements. Refer to [exercise library](#) for some alternatives and/or work with your own. Not all movements work for all people!



# Exercise Video Library

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# Exercise Video Library

## **Back (Rowing & Pulls)**

[Single Arms Rows](#)

[Dumbbell Rows \(single arm\)](#)

[Deadlift](#)

## **Back (Stretch)**

[Pullovers](#)

[Pulldowns \(w/ band resistance\)](#)

## **Chest**

[Hammer Strength Incline Press \(w/ band resistance\)](#)

[Chest Machine Press \(w/ band resistance\)](#)

[Dumbbell Press \(w/ band resistance\)](#)

[Dumbbell Press with twists](#)

[Hex Presses](#)

[Cable Flyes](#)

## **Shoulders**

[6 Ways](#)

[John Meadows' Approved Dumbbell Side Partial](#)

[Shoulder Press \(w/ band resistance\)](#)

## **Triceps**

[Kettlebell Extensions](#)

[Dips \(w/ band resistance\)](#)

## **Biceps**

[Preacher Hammer Curls](#)

## **Legs**

[Smith Squat](#)

[Front Squat / Back Squat superset](#)

[Dumbbell Stiff-legged Deadlifts](#)

[Leg Presses](#)

[Standing Calf Raises \(w/ band resistance\)](#)

[Leg Press Calf Raises](#)

[Other exercises listed in the training programs can be found on a general YouTube search.](#)

# Intensity Techniques

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# Intensity Techniques

In the information age in which we live, it's very easy to fall into the 'paralysis by analysis' trap, jumping from one diet or exercise program to the next depending on what's the flavour of the month.

That all said then, before you read any further, close out of PubMed, put the flow charts and science journals down and get prepared to work.

Sometimes it seems the weightlifters and bodybuilders who came before the internet were better off. They got into the gym and put in the work, emulated the big guys before them, and didn't always stick to a pre-programmed workout regime day-in and out. They had fun, pushed their limits and got it done. It just seems these guys were more willing to bust their balls for strength and muscle gains. Sure, we weren't there to witness it, but the proof is in the pudding. We've all seen the photos and video evidence. Aesthetic physiques built with ball-busting workouts and less chemical assistance (presumably) than today's mass monsters.

Too often we can scan about the gym these days and see dudes checking their cellphones, gawking at the row of ellipticals for a quick spike of yoga pants inspired motivation (OK, I do that too), and/or chatting with their buddies at the water fountain.

What gives? The science isn't going to do the work for you. After a certain point of development, you need to get into the gym with a mindset built on kicking ass. Put your headphones in, strap on your balls and go to work.

Even though these guys in the 70s and 80s had way less access to training and nutrition information, they were swole. They weren't afraid to overtrain or fearful of spiking their cortisol levels. What does that say? Maybe some of them are paying for it today, but at least an element of that reckless abandon should be part of your programming. Training like you have a pair may just be what you need to push beyond your comfort zone and fill out that schmedium T you've stashed for the club. Ladies, this applies to you too. If your workout consists of 20 minutes on the elliptical day after day, you shouldn't be surprised with the lack of progress. Weight training is a key for you too!

Here's some training techniques that aren't new (in fact many were adopted during the aforementioned Golden Age of bodybuilding) but they'll test your mettle and your balls. In the advanced program, I have sprinkled these in to help you grow and get better.

## Contrast Sets

These movements involve pairing a loaded movement with an unloaded one. As Lee Boyce explains it, the fast twitch muscle fibres will be stimulated by performing a set of heavy front or back squats, for example, and then pairing the compound movement with bodyweight jump squats, it'll make the fast twitch fibres “think” they still need to recruit themselves in the quantity (and intensity) they needed to during the heavy squats, theoretically leading over and above to more muscle fibre recruitment.

Some examples of pairs include Bench Press with Plyo Push-ups and Pull Ups with Medicine Ball Slams. Rep out 10 of the main compound lift and then finish off with 10 reps of the secondary movement. These will also serve a metabolic benefit too, as you'll get your heart rate elevated throughout.

## Drop sets

Do a target amount of reps and then, upon failure, drop the weight and rep out another set, then repeat again. Alternatively, you can do a drop set without lowering the weight by decreasing the level of difficulty, i.e. With incline dumbbell bench press, start at a 45 degree angle, rep out 8-10, drop to a 30 degree angle and rep out again, then flatten the bench and do one more set.

## Partials

Once you have completed all the reps you can with good form, you maintain your form, but only do smaller, half reps, sometimes even quarter reps. These should still be done in a controlled manner and certain exercises aren't very well suited to them. Some examples that do work include: quarter reps on a lying leg curl machine after you've completed all your full ROM sets - this will pump your hammies full of blood. Try to hammer out 20+ quarter reps. [Watch a video demonstration here](#)

## Widowmakers

These will test your mettle and make a man (or woman) out of you. On your main exercise for a particular muscle group, after you've completed your working sets and have ramped up the weight, keep the weight there and instead of repping a typical 8-12 rep set, you aim for at least 20 reps. This will be a grind and force you well beyond your comfort zone, but it's good to test yourself once in awhile! For example, say you've worked up to 315 on squats and just completed a 10 rep set with good form. Now catch your breath, put the weight on your back and try to double that! It's fine if you fail to reach that number, but the goal is to push beyond those mental barriers holding you back.

## Supersets

This is when you do one exercise immediately followed by another, not necessarily with the same muscle group. Some examples include pairing bicep and tricep movements together and rotating back and forth, doing a shoulder press movement followed by a chest fly and so on. For further intensity (and some cardio) you can pair three exercises - trisets - in a similar fashion. If you want a cardio challenge, use nothing but a barbell with the same weight on it and rotate through 10 reps of barbell rows, 10 reps of cleans, 10 reps of deadlifts, and 10 reps of front squats without putting the bar down.

## Bands

As you become more advanced, simply performing the basics in regular rep ranges - and continually trying to add weight to the bar workout after workout - do not infinitely lead to bigger and better gains.

For one, adding weight each and every week is a recipe for burnout and puts you at risk for injury. While, on the other end of the spectrum, those who do the same routine day after day (look around your commercial gym) stagnate and look the same year after year.

You'll eventually plateau – we all do – which is when outside-the-box techniques need to be employed to continue progressing.

Bands allow for accommodating resistance through the entire range of motion, matching your strength curve. In other words, the bands are most resistant when you're at your strongest (i.e. band is fully lengthened at the peak of a dumbbell press when you're near full extension), challenging you equally throughout the entire distance that your targeted muscle group travels. This adds a whole other level of difficulty to any exercise, without having to go too heavy and sacrifice form. There's also the benefit of eccentric overload, and for those in pursuit of hypertrophy, the eccentric (negative) portion of a rep is hugely important. [Watch a demo video](#)

## A Word of Caution

It's also important to note that too much of a good thing can be bad. The techniques listed should be incorporated as part of a periodized workout program. If you've had a month-long layoff from the gym, for example, you should not jump into high volume workouts with drop sets and widowmakers right off the bat. You'll get plenty of stimulus/results simply from easing back into it and progressively increasing the volume and intensity over weeks at a time. Train hard but train smart. The pursuit of muscle is a marathon, not a sprint!

# Fat Loss Techniques

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# Fat Loss Techniques

Dieting has negative connotations, and for good reason. Anything that tends to involve a diet sucks – plain and simple. The name alone suggests deprivation, bouts of starvation and resisting temptation. Any diet that restricts things for too long is bound to fail, so what I propose is changes to your lifestyle that can have dieting effects without all the negatives.

**Here are some easy fat loss strategies (besides obviously following the Endomorph Evolution diet and training program enclosed) you can implement today to start dropping fat:**

## Un-American Breakfast

Upon waking, your body is a fat burning machine. It is hormonally primed to consume fat for fuel for the next few hours of the day. In order to facilitate this fat burning, we have to hold out on the carbohydrates at breakfast. So we opt instead to elevate fats in their place for the first meal of the day. This means something like a three-egg omelette with spinach (no toast) instead of a heavy carb-laden breakfast of pancakes and waffles (you can eat those later in the day – see below).

I'm in favour of back-loading carbohydrates in the evening, with meals in the early part of the day mostly comprised of protein, fats and veggies. I stumbled upon this by accident more than three years ago, just because it made me feel more alert at work – not because of what it may or may not do aesthetically or health wise.

## Carb Down

Insulin is an incredibly important hormone, especially in your pursuit of muscle and strength gains. Insulin is a potent inducer of amino acid uptake and protein synthesis, which makes it key to a muscular, fit physique, but it's very much a double-edged sword. Insulin is effective at driving carbs into muscle and liver tissue (good), but it's also equally as good at directing carbs into fat tissue (bad).

Every time you eat carbs, your insulin receptors spring into action, which is what you want, but if you're repeatedly bombarding your pancreas with carbohydrates the insulin response can wear out over time. I won't go further into the mechanics here, but this is a slippery slope towards diabetes if paired with inactivity and poor dietary choices.

How can you optimize your insulin sensitivity? Fixing your diet is the most important element. Remove high-glycemic carbohydrates – simple sugars – as much as possible, making sure at least 20% of your caloric consumption comes from dietary fats to balance out blood sugar levels, and opting for meals without carbs at certain times of the day can all contribute to improving insulin sensitivity.



## Heat Things Up

Heat therapy (sauna for one) improves insulin sensitivity by suppressing inflammation. You'll notice a theme here – insulin sensitivity is a common thread to fat loss and everything you can do to improve it should be a priority. Soaking in a hot bath or sauna causes an increase in core body temperature that turns on the cellular 'heat shock' response. This increases insulin sensitivity by suppressing inflammation and increasing blood flow to working muscles. You can get similar effects from cold showers or cryotherapy on the opposite end of the spectrum, but if you had to choose I think most would make the choice to relax in a sauna over an ice bath, am I right or am I right?? Hitting the sauna a few times a week when you're off from the gym may be just what is needed to maintain heat shock protein levels, which aren't activated during sedentary activities. Theoretically, this should help to maintain insulin sensitivity at or near training levels. For this reason, heat therapy may be especially useful when taking time off from training or if you don't often train period.

## Get Down With Brown

Without getting too "sciency" on you (I've probably lost half of you already), there are several types of fat cells, the most relevant being White and Brown.

White fat cells actually constitute an endocrine organ, and regulate a lot of bodily processes, but the problem with them is if they get too big, so do you, through such unfortunate mechanisms as insulin resistance, inflammation and nasty cardiovascular events. You're much better off keeping white fat cells at a minimum and focusing on creating an abundance of brown fat.

How the heck does one accomplish that, you ask?

If you aren't lean, you can help yourself by doing things to "enlist" brown fat. For one, if you keep the heat down at home, you may benefit in the brown fat department. Why is that? Being cold engages the body's "fight or flight" sympathetic nervous system, which subsequently triggers brown fat into action, oxidizing calories for energy, and later body fat stores, to keep you ticking along. Try to win a heating bill argument with the significant other with that one, but tread with caution (and don't identify me as your source).

Those who work outdoors in the cold have more than their share of brown fat, and brown fat levels actually increase in the wintertime in cold climates. This suggests to me that everybody can get their body in a fat burning environment with the right tools. But even if you aren't willing to go streaking on one of those chilly winter nights to create more brown fat cells, there are other ways to increase your fat burning prowess.

1. *Eat spicy foods and drink green tea:* Capsaicin, in spicy peppers, is thermogenic and appetite suppressive. Oddly, considering feeling cold seems to be the best way to turn on brown fat activity, this hot spice which turns you red in the face mimics the effects of cold on brown fat, exciting them in much the same fashion. Buy some kimchi and thank me later! Even green tea acts along a similar pathway in studies.

2. *Work your butt off:* We all know exercise turns on the sympathetic nervous system, too, which as you learned earlier, creates brown fat cells. In scientific terms, a 2012 study found a protein produced in skeletal muscle during exercise makes fat cells turn brown.

3. *Get some sun:* Sunlight exposure triggers skin cells to brown themselves (otherwise known as a tan in layman terms). A tan is sexy and all, but the positives don't end there. The science behind how you tan is where brown fat comes in. When the skin cells are browned, melanin is activated. This antioxidant, which has been shown to have anti-inflammatory properties in studies, could be the body's natural defense against obesity-related conditions such as type 2 diabetes because of its anti-inflammatory effects on fat cells.

4. *Eat the right foods:* Conjugated Linoleic Acid (CLA) and Essential Fatty Acids (found in abundance in wild fish and grass-fed meats) mimic the activity of brown fat cell activity by stimulating fatty acid oxidation. Buy your supplements or get from the aforementioned whole food sources.

## **Use Glucose Disposal Agents**

Another tool in your insulin sensitivity tool belt are glucose disposal agents (GDAs). They help to ensure that carbs are stored as glycogen in hard-working muscles instead of fat. But before you start hitting the drive-thru after popping your GDA of choice, I stress they WON'T make up for a poor diet. The wrong circumstances to take GDAs are any time calorie intake is excessively high and energy expenditure is excessively low, like a Sunday entirely spent watching NFL for example. As Bill Willis explains, the combination of a ton of calories relative to less energy consumption triggers a compensatory decrease in insulin sensitivity, and GDAs won't do any good in that environment.

*Here's my go-to GDAs: (Best taken post-workout with a carb heavy meal)*

*Cinnamon:*

Cinnamon not only helps insulin do its job better, but it has insulin mimetic properties (which means in the absence of insulin it can drive nutrients into muscles). It has health benefits beyond being a good GDA, but I won't get into those here (let google guide you). This is the one I most often recommend because it's EASY to implement into your diet right away! Every one has cinnamon in their cabinet, and it tastes good on a lot of things (hint: post-workout is a good time to use liberally when you're most primed for carbs). It has a long shelf life as well.

### *Alpha Lipoic Acid:*

ALA is naturally found in small amounts in muscle meats, heart, kidney, liver, etc., but needs to be supplemented to contribute as a GDA. The plain ALA version should be dosed at a range of 600-900mg per day (mostly following exercise just before a carb-heavy meal), while general recommendations for R-ALA are half that. Considering those dosing protocols, do the math and determine which provides more bang for its buck. It can be taken a few times a day before a meal with carbs or all at once after a workout with your post-workout meal.

# Fat Loss Circuits

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## Cardio Circuits

| EXERCISE       | TIME      |
|----------------|-----------|
| Jacob's Ladder | 5 minutes |
| Run 2 Laps     | 5 minutes |
| Walk 1 Lap     | 5 minutes |

| EXERCISE        | TIME      |
|-----------------|-----------|
| Stationary Bike | 5 minutes |
| Rower           | 5 minutes |
| AMT             | 5 minutes |
| ARC Trainer     | 5 minutes |

## Intermediate Circuits

| EXERCISE                 | REPS        |
|--------------------------|-------------|
| Kettlebell Swings        | 60 seconds  |
| Ab circuit               | 120 seconds |
| Alternate for 10 minutes |             |

| EXERCISE                                      | REPS |
|---|------|
| Push Ups on bar                               | 10   |
| TRX Plyo Pulls                                | 10   |
| Medicine Ball Target Squat/Toss               | 10   |
| Ropes - 2 Arm Whip & Smash                    | 10   |
| Mountain Climbers                             | 10   |
| Jumping Chin Ups                              | 10   |
| Plank Push Up                                 | 10   |
| Repeat as many times as you can in 20 minutes |      |

## Advanced Circuit

| EXERCISE                      | REPS |
|-------------------------------|------|
| Handstand Push Ups            | 10   |
| Kettlebell Swings             | 15   |
| Inverted TRX Back Row         | 10   |
| Burpee-Rope Slam              | 10   |
| Hanging V-Ups (Feet to Hands) | 8    |

## Density Training Circuits *(Hat Tip to John Romaniello & Charles Staley)*

| EXERCISE               | REPS                |
|------------------------|---------------------|
| Barbell Overhead Press | AMRAP in 25 seconds |
| Barbell Row            | AMRAP in 45 seconds |
| Leg Elevated Push Ups  | AMRAP in 30 seconds |
| Hanging Leg Lifts      | AMRAP in 60 seconds |
| Repeat for 3-4 sets    |                     |

| EXERCISE                | REPS                |
|-------------------------|---------------------|
| Goblet Squat            | AMRAP in 35 seconds |
| Alternating Lunges      | AMRAP in 45 seconds |
| Standing Calf Raises    | AMRAP in 55 seconds |
| Stiff-legged Dead Lifts | AMRAP in 45 seconds |
| Repeat for 3-4 sets     |                     |

*AMRAP - As Many Reps as Possible*

## High Intensity Interval Training

| EXERCISE       | REPS  |
|----------------|---|
| Recumbent Bike | 20 seconds max pace, 1 minute moderate pace |

| EXERCISE     | REPS  |
|--------------|---|
| Hill Sprints | Sprint up (15-20 seconds), 2 minute walk back |

| EXERCISE                   | REPS  |
|----------------------------|---|
| <a href="#">Car Pushes</a> | Push car in neutral (15-20 secs), 2 minute rest |

*Perform HIIT for time (10-20 minutes)*

# Cardio

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# Thoughts on Cardio

You'll notice the programs in this book don't advocate for much cardio - and if you do it, it should be short and intense. Much of the research out today shows much greater benefits from high intensity interval training (HIIT), especially if your goals are specific to body composition. If you're an avid runner or triathlete, clearly different rules apply.

For the bodybuilder or strength athlete who's now training more frequently (if he's on the Endomorph Evolution program he is), plus adding in super sets, complexes and the like can emulate the effects of HIIT and you may not need it at all. This is really an individual variable depending on goals, bodyfat levels etc. Just know that although effective, HIIT can compromise recovery and take away from your strength and muscle building goals if utilized improperly.

Avoid cardio defined as moderate intensity steady state (MISS), as it can interfere with your strength and muscle gains, not to mention recovery. So if you AREN'T an endurance athlete preparing for a marathon, going for long jogs or bike rides at a fairly steady clip is not in your best interests. You're sending your body mixed signals - on one hand you want to grow muscle but it's not going to want to get bigger if you're jogging long distances all the time (your body recognizes excess muscle as counterproductive to running long distances!)

If you're in your off-season and not as active, your cardio sessions should be modeled after the goals of your sport, i.e. a typical hockey shift – full out sprints for 20-30 seconds, then 1-2 minutes at a reduced pace or complete rest, rinse and repeat. If you want to look and perform like a sprinter – not a marathon runner – train in spurts.

Conversely, if you train like a marathon runner, you'll logically get the endurance adaptations that come with it and start to resemble one physically, which isn't optimal if maintaining strength is your goal. That's even less so if you're a bodybuilder looking to build muscle at the fastest rate possible.

Again, if you're in the weight room 4 or 5 times per week, high intensity interval training (HIIT) should be used sparingly to maximize recovery. That's where low intensity steady state (LISS) comes in. This form of cardio (i.e. walking the dog) doesn't interfere with recovery and yet still provides some calorie burn and cardiovascular benefits. If you're slowly dieting down, using LISS may work throughout the diet if you don't have a ton of fat to lose and are training frequently, while HIIT may be preferable if your diet is high in calories or you have a fair bit of fat to lose at the outset.



To conclude, first assess your goals before implementing a cardio regime. Those jogs around the neighbourhood may be counter-intuitive to your goals. If you've got a half marathon coming up, by all means train to best perform in that event. But if you're a young athlete looking to get better, stronger and faster for the hockey (insert other sport) season in the fall, train in ways that best suit you!

### **Type of Cardio Definitions:**

**LISS:** Low intensity steady-state, i.e. walking the dog, incline walking on a treadmill etc. Nothing too strenuous, but can contribute to fat loss and be a nice balance to resistance training without taxing the nervous system.

**MISS:** Moderate intensity steady-state, i.e. a jog around the neighbourhood, or prolonged bouts at the same pace on a cardio machine. If you're an endurance athlete looking to improve endurance, have at it! But this form of cardio is not optimal for the bodybuilder or strength athlete looking to maximize muscle gains.

**HIIT:** High intensity interval training, i.e. hill sprints, car pushes, recumbent bike intervals etc. Probably the best bang for your cardio buck (less time = more results), but needs to be used in moderation if in conjunction with resistance training and/or regular sports activities. It can tax the nervous system and lead to overtraining if overdone, but is an effective fat loss tool when used effectively.

“Wow, that jogger looks ripped and jacked!” – Said no one ever.

# Supplements

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# Supplements

This section is at the back of the book for a reason.

If you don't have the other, larger pieces of the puzzle on lock, supplements aren't going to make up for poor errors in your ways everywhere else. At least not the over-the-counter supplements you find at your neighbourhood supplement shop or grocery store. The illegal stuff, maybe, but I'm not an expert on that nor can I condone the use!

An article published in the Globe & Mail (Nov. 2013) adds fuel to the growing debate about whether taking in micronutrients (vitamins) in pill form – in “supraphysiological” doses nearly impossible to get through diet alone – actually does more harm than good.

A Queen's University study, cited in the article, tested 16 men before and after a four-week sprint-interval training program. The group who took a resveratrol supplement saw smaller improvements in anaerobic power and impaired fat-burning during exercise compared to the group that did the exercise alone with no supplemental “advantage.”

As a second example, the article cites a 2008 Spanish study that found combining exercise with 1,000 mg per day of vitamin C through pill form led to smaller gains in aerobic fitness-boosting mitochondria than exercise alone. Similarly, a German study in 2009 found a combination of 1,000 mg of vitamin C and 400 IU of vitamin E blocked the improvements in insulin sensitivity you'd normally get from exercise.

I see young 20-somethings touting around a pill box full of tablets only their grandparents could rival, and that worries me. Your body is programmed to digest food and extract macronutrients (protein, carbs etc. for fuel) and micronutrients (vitamins and minerals).

Instead of going cheap on the foods you eat and spending wads of cash at the local supplement shop, invest in high quality foods instead!

You are what your food has eaten. I am a staunch believer in natural sources of fat soluble vitamins, and you will get way more Vitamin D from a free range egg, as the hens get more sunlight, than your run-of-the-mill \$2/dozen bare bones variety that lives its life confined to a cage. In addition, free range eggs give you twice the Omega 3's (although I have seen as much as 20 times more Omega 3), and 7 times more beta carotene. That's just one example.

Vitamin C can be had from a variety of fruits and veggies, and Vitamin E is found in abundance in wheat germ, green leafy veggies and grass fed beef. Make the effort to consume high quality foods and you won't need a medicine cabinet full of herbal supplements.

Direct from the G&M article: "But it should be clear by now that just because something is "good for you," extracting its essence and ingesting 100 times more of it won't be 100 times better for you – and in some cases, may actually be worse."

Note: I'm not 100% anti-supplement. I believe in adding in a daily dose of Vitamin D during the long winter months when you leave work in darkness, and if your diet is lacking in seafood, fish oil supplements in moderation can close the gap, but the take home point here is to focus on a diet rich in quality foods first and foremost. Thinking you can make up for poor diet by popping pills is not a winning formula.

### **Cliff Notes:**

If you aren't on a severely calorie restricted diet, a well-rounded diet that incorporates plenty of micronutrients the natural, absorbed-through-food way will get the job done.

### **Supplement Recommendations:**

*Hormonal Optimization*

[Vitamin D](#)

[Omega-3](#)

[ZMA](#)

*Fat Loss*

[Alpha-Lipoic Acid](#)

*Better Sleep*

[Melatonin \(if you struggle to shut your mind off at night\)](#)

[Blue Light Blocking Glasses \(wear before bed for an hour\)](#)

# Dieting Tips

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# Dieting Tips

So you've started the Endomorph Evolution carb cycling diet, but what happens when you stagnate? Hire me! (I kid).

Let's go back to our Test Dummy example.

He's on the beginner program training four times per week with one fat loss circuit on Sundays.

Here's how it breaks down:

Monday - Train Legs | Moderate carb (3,060 calories)

Tuesday - Train Upper | Moderate carb (3,060 calories)

Wednesday - OFF DAY | Low carb except intra workout shake (2,400 calories)

Thursday - Train Legs | Moderate carb (3,060 calories)

Friday - Train Upper | Moderate carb (3,060 calories)

Saturday - OFF DAY | Low carb (2,400 calories)

Sunday - HIIT Fat Loss Circuit | High carb (3,850-4,000 calories)

He has a wedding coming up, so he's in a fat loss phase - 10% below maintenance calories on training days with two low calorie days as outlined.

His weight drops fairly quickly to start, by as much as 5 lbs in each of the first two weeks, but he's since settled in at about 1 lb/week pace even with the high carb delights on Sunday.

He'll keep his calories consistent until he goes one full week without a drop in weight (which is why weighing yourself on a consistent day/time is important). At this point, he can either drop his training day calories another 10% or add in a secondary fat loss circuit (maybe after his Friday upper body workout).

That should lead to additional weight loss, hopefully for another three weeks or so at 1-2/lb per week. The next time he hits a sticking point, he can opt to add in a few low intensity cardio sessions (half hour brisk walk 2x/week) without dropping calories or adding in another taxing HIIT session - which may be too much to bear in his existing calorie deficit.

Depending on when his wedding is, the fat loss approach may need to ramp up beyond those measures, but it gives you an idea of the progressive steps involved. Don't throw everything but the kitchen sink (sorry for that overused cliché) in the first week, otherwise it'll take everything and TWO kitchen sinks later.

# About Calvert Fitness

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Since 2010, Mitch Calvert has been working privately with clients, helping them break through their mental and physical plateaus.

Mitch Calvert is a certified personal trainer who has been featured on elitefts.com, T-NATION.com, STACK.com, and was ranked as one of the top 10 fitness blogs by BreakingMuscle.com in 2013.

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