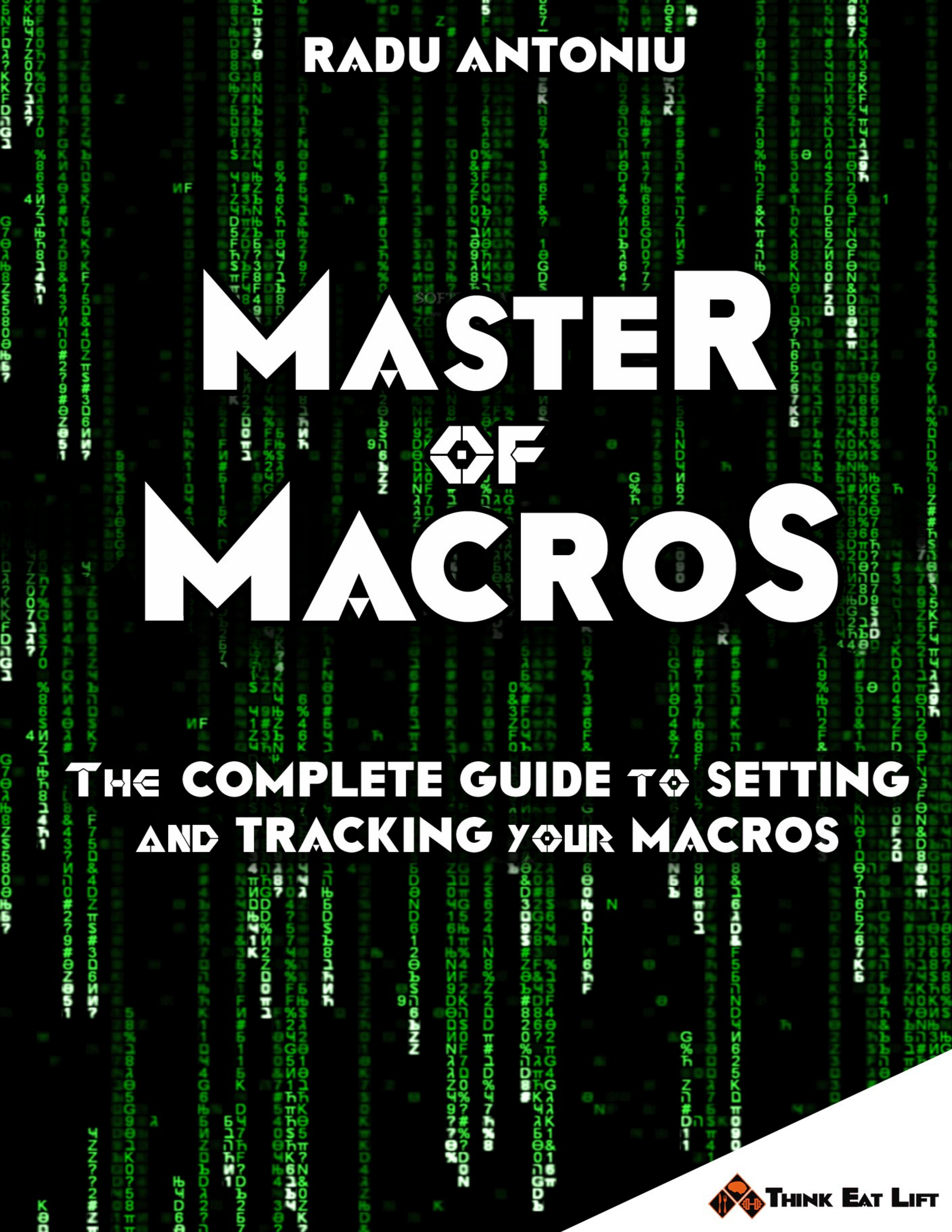

RADU ANTONIU

MASTER OF MACROS

THE COMPLETE GUIDE TO SETTING AND TRACKING YOUR MACROS

Think Eat Lift

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Disclaimer

The information found in this book does not constitute medical advice and should not be taken as such. Consult your physician before taking part in any exercise or diet program.

The dietary modifications found in this book are intended for healthy adults only. If you have medical considerations that require special nutritional practices, please consider reviewing this book with your nutritionist and physician before starting a diet or exercise program.

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INTRODUCTION

The right calorie and macronutrient intake plays the most important role in achieving high level physique goals. Tracking our total food intake is the easiest and most reliable way to lose body fat (with no or minimum muscle loss) or gain lean body mass (with no or minimum fat gain).

I was lucky enough to learn this lesson early and I only lost 4 or 5 months trying to lose fat with other methods. The purpose of this guide is to help you better understand the relationship between how much and what we eat and the way our bodies look. My hope is that this information will save you a lot of time and effort as well.

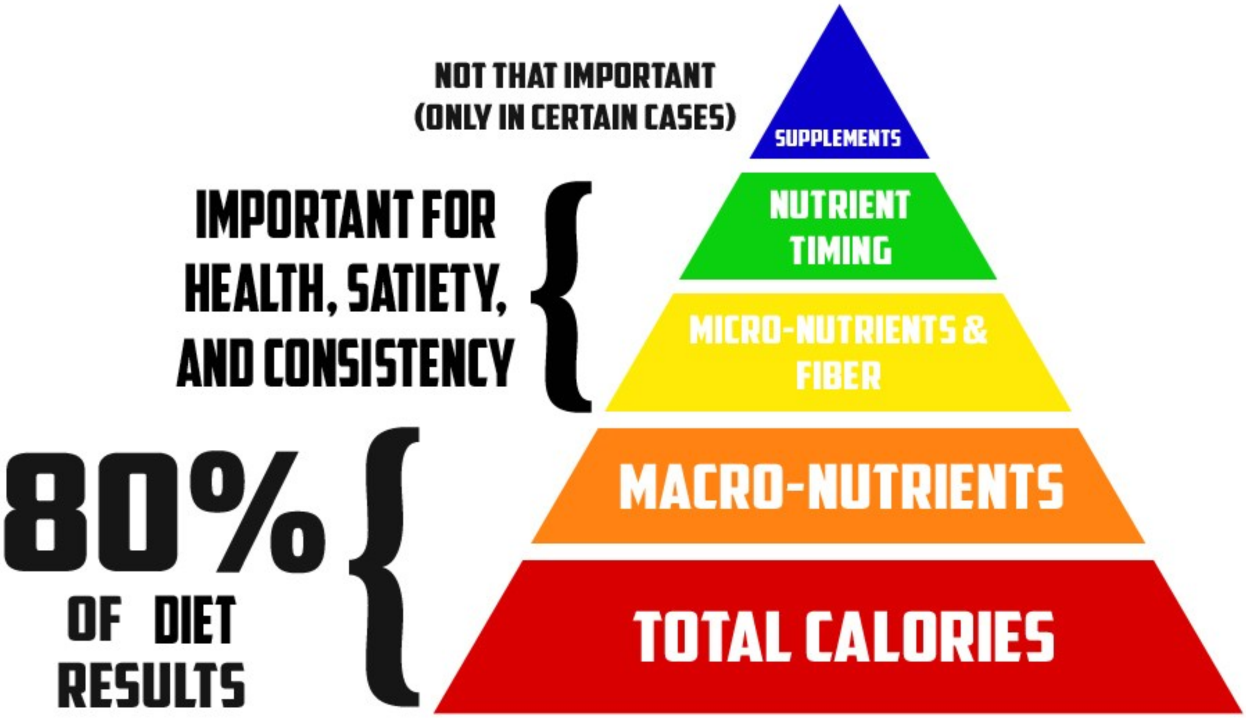
In the following chapters you'll learn how to estimate your calorie needs for either fat loss or lean body mass gain. You'll also learn how to set your protein, fat and carb intake to best suit your goal.

If you'll understand this information, you'll be able to eat your favorite foods while losing fat or gaining muscle, you'll be free from dietary dogmas and you'll be able to control your bodyweight and body composition however you want.

My hope is that from now on when you look at food you'll feel like Neo inside the Matrix. All you see are numbers.

Let's begin !

THE MUSCLE & STRENGTH NUTRITIONAL PYRAMID


NOT THAT IMPORTANT
(ONLY IN CERTAIN CASES)
SUPPLEMENTS
IMPORTANT FOR HEALTH, SATIETY, AND CONSISTENCY
NUTRIENT TIMING
MICRO-NUTRIENTS & FIBER
80% OF DIET RESULTS
MACRO-NUTRIENTS
TOTAL CALORIES

* The base of the pyramid is what matters most. As you get closer to the top, the overall importance of those factors dicreases. *Credit for the idea goes to Eric Helms.*

1. The total calories consumed in a day

Calories are number 1. Nothing affects the way your body looks like as much as the total calories consumed do. Body fat is only burned when the body is in a caloric deficit.

2. The Macro-nutrients from which those calories come from (protein, fats and carbs)

Macros are number 2. The protein, fat and carb ratio must be correctly set in order to prevent muscle loss or sustain muscle gain, maintain healthy hormonal status and good gym performance. In the next chapters you'll learn how to set up your calories and macronutrient numbers.

3. Micro-nutrients (vitamins and minerals) and fiber

Micro-nutrients don't directly affect fat loss and muscle growth (although sometimes they might do so through other mecanisms) but they are essential for health, recovery and good energy levels. For those reasons our diet must be highly nutritious.

Fiber is important when cutting because it brings bulk to our diet helpinf with satiety and prevents constipation (this really is a problem for some when they go high protein and low carbs)

4. Nutrient timing

Nutrient timing refers to peri-workout nutrition, the number of meals you eat in a day, and how you distribute the food. It also refers to calorie and carb cycling as well. This is what you'd call the diet structure.

Strictly for fat loss, the diet structure isn't that important as long as the calorie and macros needs are met.

However, the diet structure and food choices greatly influences whether you find it easy or hard to hit your numbers daily.

5. Supplements

At the very top of the pyramid, being the least important overall are supplements. Most supplements are not that helpful but a lot of people give them way to much of their attention and lose focus of what matters most (calories & macros).

I didn't include a chapter on supplements in this ebook because personally I don't use any and I'm not experienced with them. Another reason is so that people convice themselves they do not need supplements in order to get great results.

The best information on supplements can be found at www.examine.com. That's where you can find whether or not a supplements is effective or not and if it's worth the money (some are useful in certain circumstances but many of them are worthless for the average guy with a decent diet).

WHY CALORIES MATTER

If you've downloaded this guide from my blog chances are you already know why calories are important and you only want to learn how to set your macros correctly. You'll read about that in the following chapters.

But for those who don't clearly understand the role of energy balance, we'll talk briefly about it here.

Calories are a measurement unit for energy. A calorie (kilocalorie) is the amount of energy required to heat up one kilogram of water one degree Celsius. The energy our bodies burn and the potential energy in food is measured in calories.

All the foods we eat contain calories. Any move we make (including breathing, digestion, heart beats, etc.) burns calories. Depending on how much we eat and how much we move, 3 things can happen:

1. We eat about as many calories as we burn. In this case our weight stays the same. Most people maintain this equilibrium unconsciously over long periods of time.
2. We eat more calories than we burn. We steadily start gaining weight. This calorie surplus can be transformed into fat and/or muscle (if we train correctly).
3. We burn more calories than we eat. We steadily start to lose weight. That calorie deficit forces the body to tap into its own fat reserves for energy. Depending on the size of the deficit, how we train and the macronutrients we eat, the body will obtain the extra energy from burning fat and/or muscle.

Several methods, same cause

For most readers this concept shouldn't be new. However, many people may not have heard the role of energy balance explained in this way because most diet books rarely address this subject.

Most diet authors realized people don't want to consciously eat less. That sucks. So they came up with diet rules that make people eat less in an indirect way. Some popular methods for weight loss include: low carbohydrate or fat intake, clean eating (or eliminating certain foods based on arbitrary reasons), eating only at specific hours, intermittent fasting and many more.

The method promoted is not that important because the cause of weight loss or weight gain is the same: total calorie intake.

It’s a psychological trick

I personally don’t think the authors have bad intentions. I think they know that any diet works as long as it creates a caloric deficit and they hope people will start eating less by following a specific set of rules. The general population would rather follow some simple black and white rules, indirectly create a caloric deficit and get the job done.

To better understand what I mean by indirect energy deficit, check out the list below and you’ll see an interesting pattern:

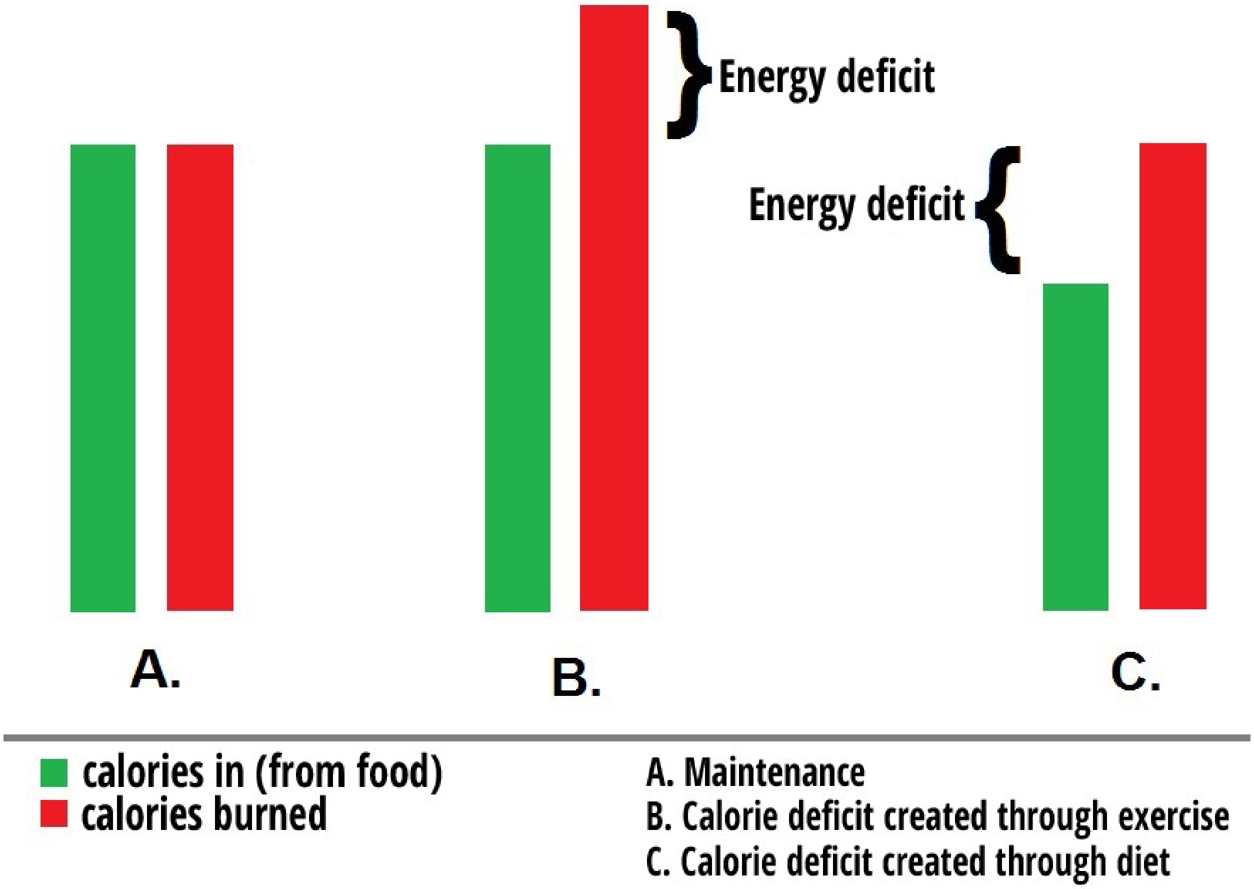
- Do more cardio = burn more calories = energy deficit = weight loss
- Don’t eat after 6 PM = eat fewer calories = energy deficit = weight loss
- Eat only “clean foods” = eat fewer calories = energy deficit = weight loss
- Don’t eat carbs = eat fewer calories = energy deficit = weight loss
- Consciously eat fewer calories = energy deficit = weight loss

All of the methods from that list work and can lead to fat loss.

The problem with restricting calories indirectly

I’m not against indirectly restricting calories for weight loss but in my opinion every person with advanced physique goals should understand the actual cause of weight change. If they don’t learn about the energy balance they risk confusing the *method* with the *cause*. For example if a person believes eating clean is the cause of fat loss they will not understand why it’s possible to hit a plateau. When their weight stalls they’ll have no idea why and won’t know how to adjust things.

The story is the same for people who do cardio for fat loss. They should know in advance that exercise in and of itself is not the cause for fat loss but it’s actually a method for creating an energy deficit.



In the picture above you can see how the same energy deficit can be created through eating fewer calories or burning more calories. Our bodies will burn fat to compensate the energy deficit. The amount of fat loss in both situations will be *approximately* the same.

The importance of calories for weight gain

So far we've talked mostly about fat loss but the total energy intake is just as important for gaining weight. Muscle growth depends to a large extent on a calorie surplus and on weight gain. An energy surplus means eating more calories than our body burns at our current weight and activity level.

Physique goals vs Weight goals

Now, when most people say they'd like to gain weight I assume they want to gain muscle not fat. Unlike fat gain, muscle gain is slow and it doesn't usually require a large calorie surplus. Eating too much over maintenance will exceed the amount of nutrients the body uses for creating muscle tissue and the rest will be turned into fat. For this reason, setting a calorie surplus correctly is the most important factor for gaining muscle with little to no fat gain.

And when people say they'd like to lose weight I assume they want to lose fat not muscle. To achieve this one should also pay strict attention to the macro-nutrient composition of their diet (that is protein, fats and carbohydrates) not just calories. Losing body weight doesn't ensure that your body composition (ratio between fat and muscle) is getting better.

Also, they should not lose body weight too fast as this usually leads to muscle catabolism and strength loss as well.

In the next chapters you'll learn how to properly set a calorie deficit for weight loss or a calorie surplus for gaining lean body mass. But before that let's address a topic that's sometimes misunderstood: the difference between calories, nutrients and food.

CALORIES, NUTRIENTS AND FOOD

In this chapter we'll talk about the difference between the intake of calories, nutrients and food. If this is too basic for you, this chapter may be skipped.

People that aren't interested in fitness or bodybuilding don't think about their daily calorie or macronutrient intake, they simply think about how much food they eat. And as we know, the number of calories and nutrients contained in a certain amount of food can vary drastically depending on the food choices.

Calories

As we said in the previous chapter, a calorie (kilo-calorie) is a measurement unit for energy and is equal to the amount it takes to heat up one kilogram of water one degree Celsius.

When we're estimating a person's energy requirement we're estimating how many calories that person needs to function the way they do now. And when we're saying a food has X amount of calories we refer to how much potential energy is contained in that food.

Macronutrients

There are 3 macronutrients that form the basis of all foods: protein, fats and carbohydrates. A fourth macronutrient would be alcohol but as we all know that is not found in most foods.

Each macronutrient has a certain energy value:

1g of protein = 4 kcal

1g of carbs = 4 kcal

1g of fats = 9 kcal

1g of alcohol = 7 kcal

In most parts of the world, the energy value of a food is measured for 100g of product. That means the energy value of a food is determined by the macronutrients it contains in 100g. For example: 100g of whole wheat bread contains the following macronutrients - 9g protein, 3g fats, and about 50g of carbs. The energy contained in 100g of bread would therefore be: 9g protein x 4 kcal + 3g fats x 9 kcal + 50g carbs x 4 kcal = 263 kcal.

I'm sure most of you know these things but it's always good to repeat the basics.

In the next chapters we'll talk about each macronutrient in more detail because they affect the body differently and each one is important. The distinction between total calorie intake and macronutrient intake becomes important when we talk about body composition and not just body weight. Two people can eat the same amount of calorie but depending on the macronutrients those calories comes from they can get very different results in their body composition (fat loss or muscle gain).

Food

Now obviously, people eat food not calories and macros. And foods vary greatly in their macronutrient and calorie content.

The foods we eat to hit our macros are important for satiety, health and vitality.

For example you can eat 100g of carbs from potatoes or low-fat cookies. Although the energy you'd get would be the same (400kcal), you must eat 500g of potatoes compared to only 140g of cookies. It's obvious that from a satiety point of view it would be much wiser to choose the potatoes over the cookies (most of the time).

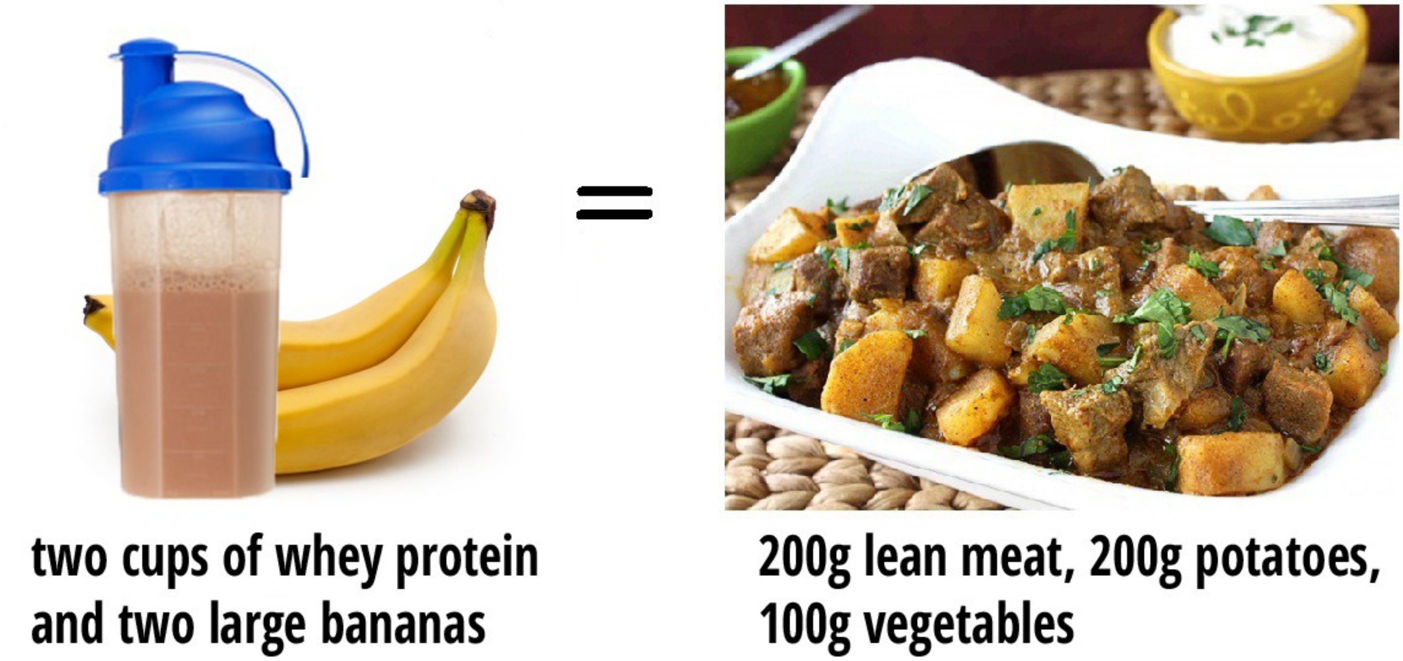
The difference between food quantity and energy value

The average person only thinks about how much food they're eating and not about the calories or macronutrients obtained from that quantity. For this reason a lot of people report not losing weight even though they're eating very little.

These people truly eat very little but because of their food choices their calorie intake is actually pretty high.

For example if a girl goes out and gets a small Moccaccino and two cookies (0.4 oz. each) that's a 325 kcal "meal". She ate almost nothing but has already used about one quarter of the calories she needs to eat to stay in a deficit.

The same girl could instead have one cup of cottage cheese (225g) with berries and feel much more satisfied for the same number of calories. Moreover, the higher protein content of this food would probably support her physique goals better than the refined carbs.


two cups of whey protein and two large bananas
=
200g lean meat, 200g potatoes, 100g vegetables

In the above picture you can see two meals with a very similar macronutrient profile. Both contain about 40g of protein, 5g of fat, and 50g carbs. However, the effect on satiety of these two meals is very different.

The current research shows that the source of macronutrients does not influence body composition (or if it does it's only a miniscule effect). That means as long as you hit your macros you can eat more or less whatever you want and achieve your physique goals (check out the IIFYM camp).

However, eating only processed foods can lead to micronutrient deficiencies and health problems in the long run. Not only that, but our food choices greatly affect how satiating our meals are and how sustainable our diet is.

Low calorie foods such as lean meats, vegetables, fruits and root vegetables would allow us to eat a large quantity of food for relatively little calories. This helps stave off hunger and cravings which makes it much easier for us to remain in a caloric deficit.

In addition, whole foods would provide more micronutrients (vitamins & minerals) and fibre which will support our health and vitality.

In my opinion making the right food choices is the most important factor for making a nutrition plan sustainable long term.

ESTIMATING YOUR TOTAL ENERGY EXPENDITURE

Estimating your Total Energy Expenditure is considered the most important step in creating an efficient diet plan. Once you know how many calories you burn at your current weight and activity level, then you can adjust that number up or down for lean bulking or cutting.

There are a lot of formulas out there that give you a good estimation for the number of calories a person needs to eat at a given weight based on sex, age, height, and activity level. In this chapter you'll discover the most popular of these formulas, you'll learn their strengths and limitations and how to use them to determine your calorie needs.

Estimating Maintenance Calories - the complicated way

A person's Total Energy Expenditure (TEE) is composed of:

1. **BMR – Basal Metabolic Rate.** *BMR is the amount of energy expended while at rest in a neutrally temperate environment, in the post-absorptive state (meaning that the digestive system is inactive, which requires about twelve hours of fasting). BMR includes the energy consumed by breathing, pumping blood, cellular growth and repair, and any other biological process necessary to maintain life.*

2. **TEA – Thermic effect of activity**. *TEA is the amount of energy expended through all voluntary and involuntary movements. The voluntary movements would be things like lifting weights, cardio, walking to work, etc. The involuntary movements are the movements we do unconsciously such as changing position while sitting, bumping our leg on the floor, playing with a pen in class, etc. These unconscious movements have been named NEAT (Non-exercise activity thermogenesis) and it seems they vary substantially between people.*

3. **TEF – Thermic effect of food**. *TEF is the amount of energy expended for the digestion and absorption of food (yeah ingesting calories burns calories). TEF is not equal for all foods. Alcohol (20%) and protein (20-35%) require the most energy for digestion. Carbs stored as glycogen require about 5-6% of the total calories, carbs converted to fat use up to 20% of the total calories and most fats can be absorbed with almost no energy cost (2-3%). Overall TEF amounts to about 10-15% of TEE (but the formulas below already take it into account when calculating BMR).*

So in order to find your maintenance calories we need to add BMR together with TEA.

Estimating your Basal Metabolic Rate

Probably the most popular formula for calculating BMR is the Harris-Benedict equation. I personally don't like it because it usually overestimates the energy needs for lean individuals (below 16% bf). It's especially bad for lean women as it usually overestimates their maintenance by 200-300kcal.

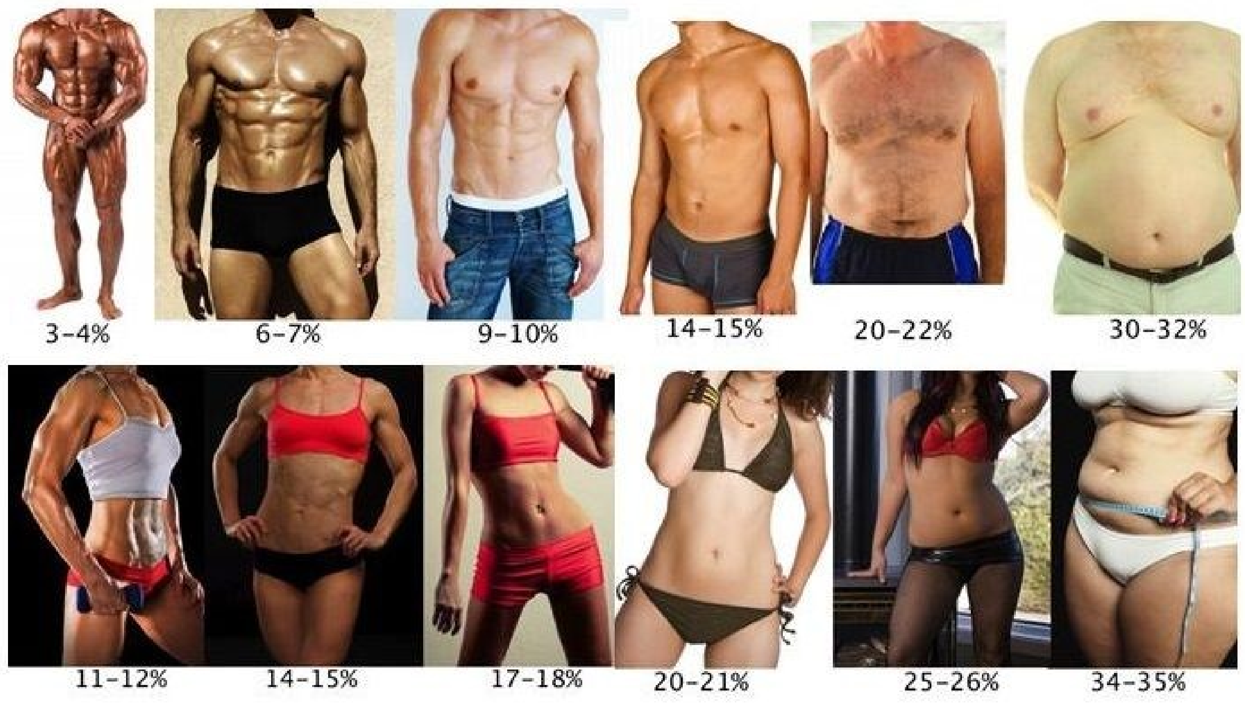
However, it works ok for the general sedentary population. I don't recommend you use it but in case you want to see it, here it is:

The Harris-Benedict Equation

- Men: 66 + (13.75 x weight in kilograms) + (5 x height in cm) - (6.76 x age in years) = BMR
- Women: 655 + (9.56 x weight in kilograms) + (1.85 x height in cm) – (4.68 x age in years) = BMR

My favorite equation for calculating BMR is the Katch-McArdle equation. It works great for lean athletic people because it takes into account Lean Body Mass (LBM). Fat mass does not require much energy to maintain but muscle mass does. A 180lb male at 8% body fat will have a significantly higher BMR compared to a 180lb male at 20% body fat.

You need to be honest with yourself when using this equation. Almost everyone tends to underestimate how much fat they have by 2-3%. I've actually had clients who thought they their body fat was half of what it actually was. If you don't really know your body fat


Body fat percentage chart for men and women

percentage (so you can calculate your LBM), check out the picture below.

The Katch-McArdle Formula

- Men & Women: 370 + (21.6 x LBM in kilograms) = BMR

Another equation which I found to work great is called Mifflin-St Jeor. I'm actually surprised it works so well because it doesn't take into account LBM.

The Mifflin-St Jeor Formula

- Men: (10 x weight in kg) + (6.25 x height in cm) – (5 x age in years) + 5 = BMR
- Women: (10 x weight in kg) + (6.25 x height in cm) – (5 x age in years) – 161 = BMR

I get almost the same result with both the Katch-McArdle and the Mifflin-St Jeor so I guess it's up to you to decide which one you prefer most.

Adding TEA to BMR to get TEE

Once we know the Basal Metabolic Rate, all we need to do is add the energy expended through activity. For this, we'll use an activity multiplier.

- For sedentary people (desk job, very little physical activity or almost none at all)

  BMR x 1.2 = TEE

- Lightly active (desk job, sports or working out 3 times a week + other light activities)

  BMR x 1.35 = TEE

- Active (standing up or walking several hours a day, sports or gym 3-4 times a week + other light activities)

  BMR x 1.55 = TEE

- Very active (physical labour + working out 3-4 times a week or 5-7 intense workouts per week)

  BMR x 1.75 = TEE

Review the list above and see in which category you fit best. Then multiply your BMR with the number specific to that category. This will give you your Total Energy Expenditure at your current weight (this is also called maintenance calories).

Most people will find they fit best in the second category – Lightly Active. I'm also in that category as I usually sit down most of the day and work out 3-4 times a week.

Estimating Maintenance Calories - the easy way

To be honest most of the time the complicated formulas are not necessary. Not only do the simple ones give almost the same results but the number of calories we need to eat to reach our goals will have to be adjusted anyway. We don't need to be very precise in the beginning.

The reason I included the complicated formulas was for you to get familiar with the terms Basal Metabolic Rate, Thermic Effect of Activity and Thermic Effect of Food as we'll make reference to them in the following chapters.

So the easy way to estimate maintenance calories is to multiply your body weight in pounds with a number between 13 and 16:

- Those that are very active (manual labour + weight training and sports 4-5 times a week) should use the top range of the interval (16 kcal x bw in lbs).
- Those who are active (walking or cycling every day + weight training 3-4 times a week) should use the middle of the interval (15 kcal x bw in lbs).
- Those who are moderately active (mostly sedentary, one hour of activity every day + weight training 3-4 times a week) should use the middle of the interval as well (14-15 kcal x bw in lbs).
- Those who are sedentary (only weight training at the gym and sedentary the rest of the time) should use the lowest end of the interval (13 kcal x bw in lbs)

SETTING A CALORIC DEFICIT

Now that you know your maintenance calories in order to lose weight/fat we net to set a caloric deficit.

There is no getting around it. Strasser et al actually proved that fat loss depends on energy deficit only, independent of the method used to create it. In this study, two groups of people were put into an energy deficit but through different methods: one group increased their energy expenditure through cardio while eating the same way and the other one did no cardio but ate fewer calories. At the end of the study both groups showed the same weight reduction.

So there are three ways to create an energy deficit: increase total physical activity, eat less or do a bit of both at the same time.

The best fat loss results are usually seen with a moderate calorie deficit. This allows for steady fat loss while also preserving lean muscle mass. Ideally you'd use a deficit of about 20-25%. For most people this would mean 500-700 kcal under maintenance.

Setting a 25% calorie deficit:

- Total Energy Expenditure (maintenance calories) x 0.75 = Number of calories for rapid fat loss

With a 25% energy deficit most people will lose about 1-1.5 lbs (500-700g) of fat per week. Overweight people will usually lose more than that, about 1.5-2 lbs (700g-1kg) per week.

Very lean guys (9% body fat or less) should use a slightly lower deficit (15-20%) or cycle calories. Because they have less fat overall, the risk of muscle and/or strength loss is increased when using a larger deficit.

You may need to adjust these numbers as you're losing body fat and weight. If you no longer lose weight at the rate of 1-1.5 lbs per week, lower your calorie intake by 8-10%. If you find you're losing weight too fast, increase your calories by 5-10%.

Have patience and set the deficit properly

A good calorie deficit restricts only enough energy to force your body to burn body fat, but not enough to interfere with muscle recovery and growth.

If you eat much less than your body burns, it's true that you'll drop fat faster, but the huge calorie deficit will also lead to muscle loss, hormonal imbalances and decreased physical performance**.** It's not worth it. On the other hand, if you eat too close to maintenance, fat loss will be too slow and you'll lose time and motivation.

An ideal calorie deficit would be about 20-25% under maintenance because it produces fast fat loss without negative effects on lean body mass and performance.

Note: As you lose weight you'll have to set your calorie intake again because a smaller body uses less energy at rest and during activity.

SETTING A CALORIE SURPLUS

Muscle growth is maximized only when we're eating more calories than we burn. New muscle tissue cannot be created out of thin air; therefore a slight surplus of calories is necessary for growth.

The amount of nutrients our bodies can use to synthesize new muscle tissue every day is pretty low. This is the reason why only a few hundred calories over maintenance are enough to maximize lean muscle growth.

Many people make the mistake of eating too much during a bulking phase and end up gaining more fat than muscle. More often than not these guys look worse at the end of the bulk than when they started.

I believe we should strive for lean gains as much as we can while not compromising the rate at which we can gain muscle and strength. Some fat gain should be allowed otherwise our progress would be significantly slower.

How fast can we gain muscle?

Training Status	Experience Level	Lean muscle growth per month (% of BW)
Beginner	One year or less of proper training	**1 – 1.5%**
Intermediate	2-4 years of proper training	**0.5 – 1%**
Advanced	More than 4 years or proper training	**0.25 – 0.5%**

* For women, the rate of muscle growth is halved

** This information comes from Alan Aragon one of the most knowledgeable fitness authors in the industry.

Each person should eat enough food to allow them to grow slightly faster than the rates in the table above.

In order to maximize muscle gain and minimize fat gain most people need to eat about 10% more than maintenance. This is a great starting point for beginners and intermediates and based on their progress they should adjust their intake up and down to grow at the set rate.

So the easiest way to set up a calorie surplus is:

TEE (maintenance) x 1.1 = Calories needed for a lean bulk

Please note that this number will probably need to be adjusted. Some people grow perfectly with a 10% surplus but others may need six or seven hundred calories above maintenance to gain 2 pounds a month.

Start with the low numbers

I recommend you start with the lowest numbers first (200-300 kcal above maintenance) and see how you progress from there. If you're not gaining weight at all or you're barely gaining, then you need to increase your calories further (add 200 more kcal).

If you see you're gaining too fast and your waist is getting bigger, lower your calories by 200.

Be aware of daily fluctuations in weight though. Sometimes you may be 2-3 pounds heavier than the day before without making any changes to your diet. You should not adjust your calories if this happens. Track your weight and progress over a longer period of time (one or two weeks).

METABOLIC ADAPTATIONS AND OTHER FACTORS INFLUENCING WEIGHT CHANGE

As your weight increases or decreases your body's energy needs change. A heavier body burns more energy at rest and during activity. This means that as you progress towards your goal you will have to make adjustments to the total caloric intake.

In this chapter you'll read about some of the adaptations that occur when we're losing or gaining weight. We will also address some other factors that influence weight change.

Metabolic adaptations when losing weight

After several weeks of cutting, a lot of people report hitting a plateau when they no longer lose fat eating the same way as before. This is normal. Let's see why.

The first reason is simply because they're lighter than before. If you remember from the previous chapters, our Total Energy Expenditure is composed of:

1. BMR (Basal Metabolic Rate) – this is basically the energy required to maintain life at a given weight.
2. TEA + NEAT (Thermic Effect of Activity) – All energy burned through voluntary and involuntary activity
3. TEF (Thermic Effect of Food) – Energy expended on digesting and absorbing nutrients

What you'll see is that the total energy expended by all three consumers changes along with our weight and food intake.

As soon as you start eating at a deficit TEF goes down simply because we eat less. BMR also goes down because we're lighter. TEA goes down as well because a smaller body burns less energy during any activity.

Another interesting thing is that NEAT usually drops too. One of the ways our body tries to conserve energy during a deficit is by reducing spontaneous, unnecessary movements. This adaptation is more pronounced in some people than others but those who are low NEAT responders usually report feeling lazy or sluggish during a caloric deficit. IF we move less, we're going to burn less energy.

Hormonal changes during fat loss

You're probably familiar with the hormone called Leptin. Leptin is a master hormone involved in maintaining our metabolic rate and also controls hunger to a large extent.

The amount of leptin we have depends on our fat mass and our food intake. When we reduce our calories and we start losing fat, leptin automatically goes down causing a series of adaptations: our metabolic rate is slightly reduced, hunger is increased, testosterone levels decrease, and NEAT goes down.

What I found interesting is that the drop in metabolic rate is not linear. A slight decrease in calorie intake and fat mass produces a larger decrease in metabolic rate than what would be expected. So at the beginning of the diet we see a significant drop but then our metabolic rate remains relatively stable decreasing slowly as we lose more body fat.

These things explain why the deficit we've initially set no longer works after a few weeks. Our lighter bodies use less energy overall, we eat less food and our metabolic rate has probably slowed down by 10-15%.

The solution?

When our weight stalls we're going to have to reduce our calorie intake again or increase our energy expenditure. I recommend reducing calorie intake by 8-10%, increasing expenditure by 8-10% or do both at the same time (decrease intake by 4-5% and increase activity by 4-5%).

Some people talk about "the starvation mode" and how it's a mistake to create a calorie deficit again after we hit a plateau. Well what other way is there? In order to lose fat we must be at a deficit.

No study has ever shown that a person's metabolism can slow down so much that it will make it impossible to lose fat. Even in the Minnesota starvation when the subjects ate only 50% of their maintenance calories they lost fat all the way down to the essential levels of 4-5% body fat. So when someone says they are not losing fat because they're eating too little, I would ignore them.

Why weight might stall even when eating at a large deficit

It is possible however to have a large to moderate deficit and still not lose weight because of water retention. Dieting, training and mental stress tend to increase cortisol levels which many times lead to water retention.

This does not mean we're not losing fat. The reduction in fat mass may be masked by the lack of weight change and increased subcutaneous water.

After a few days (especially if we eat slightly more carbs and we relax) the water should be flushed out and we'll see the reduction in weight and fat.

Factors influencing weight gain

The human metabolism defends against weight loss much more than it does against weight gain. This makes sense from an evolutionary point of view because only in our modern society has fat gain become a health issue.

We do have some mechanisms for preventing weight gain but they seem to be more evolved in some people than others.

An ideal calorie surplus can only be set through experimentation. With a surplus of 200-300kcal some people gain muscle and strength just fine while others don't seem to grow at all. Why is that?

The surplus we set on paper is often very different from the actual surplus that occurs. Let's see again what constitutes out Total Energy Expenditure:

1. BMR (Basal Metabolic Rate) – this is basically the energy required to maintain life at a given weight.
2. TEA + NEAT (Thermic Effect of Activity) – All energy burned through voluntary and involuntary activity
3. TEF (Thermic Effect of Food) – Energy expended on digesting and absorbing nutrients

As soon as we start eating more, TEF goes up. More food means more energy is required to digest and absorb it. BMR and TEA also go up because a larger body burns more calories both at rest and during activity.

The biggest difference however comes down to Non-Exercise Activity Thermogenesis (NEAT). When we eat more, our body usually tries to defend against weight gain by increasing our spontaneous and unconscious movements to burn energy. This is exactly the opposite of what occurs during a fat loss phase.

How much of a surplus is needed for weight gain?

There is one really cool study that shows the effects of overfeeding on spontaneous physical activity. In this study numerous non-obese adults (age between 25-36 years) were fed 1000kcal over maintenance for 8 weeks. The results can be seen in the table below:

Variables	Means	Range
Weight Before (kg)	65.8	53.3 – 91.7
Weight After (kg)	70.5	58.8 – 93.1
Weight Gained (kg)	4.7	1.4 – 7.2
Fat Gained (kcal/day)	389	58 - 687
Fat-Free Mass Gained (kcal/day)	43	15 - 78
Baseline dietary intake (kcal/day)	2824	2265 – 3785
Baseline resting energy expenditure (kcal/day)	1693	1470 - 1990
Overfed resting energy expenditure (kcal/day)	1772	1460 - 2040
Baseline TEF (kcal/day)	218	89 - 414
Overfed TEF (kcal/day)	354	133 - 483
Baseline TEE (kcal/day)	2807	2216 - 3818
Overfed TEE (kcal/day)	3361	2508 - 4601

*table from AARR May 2012

What you can see is that the total weight gained is much less than what you'd expect. On paper, 1000kcal over maintenance for 8 weeks should results in about 7.2kg of weight gained. But in this well controlled study only an average of 4.7 kg was gained.

If we do the math we'll see that only about 400 calories out of 1000 were stored and the rest were burned off. And more than two thirds of the burned calories were dissipated through NEAT.

However, the energy burned through NEAT varied drastically between subjects. You'll see that the highest NEAT responder burned 692kcal per day while the lowest responder only 98kcal. The former is probably one of those people who cannot gain weight no matter what and the latter is one of those that gets fat just by thinking about food.

What this study shows us

This study shows that we cannot estimate how many calories one need to gain 2-3 lbs a month. The surplus we set on paper and the one that actually occurs may be very different.

The naturally skinny guys probably need 500kcal+ over maintenance to gain at the ideal rate while some other people may only need 200kcal.

How to adjust calories when lean bulking

I suggest you start with only 200-300kcal over maintenance and see if you gain at the rates given in the table above. If you gain too slowly, then increase the calories as needed. Remember to make small increases in calories. This way you'll avoid unnecessary fat gain.

SETTING THE MACRONUTRIENTS

Once you've set the calories correctly for either a cut or a bulk, the next step is to determine from which macronutrients those calories are going to come from.

If you want great results remember that it's not enough only to count calories. Each macronutrient (protein, fats and carbs) has it's own role and should never be ignored.

During a cut, a good ratio of macros will help maintain or increase muscle mass and performance, support healthy hormone levels and help with satiety. Moreover, begginers almost always gain muscle mass during a cut if they're careful to hit their macros.

During a bulk, a high intake of protein and carbs will support muscle growth and recovery while also providing the necessary energy to push yourself in the gym. Getting your macros mostly from whole foods will also help with satiety - preventing overeating and fat gain.

Protein

The most important macro-nutrient in any diet is protein, that's why we set it first. **Adequate protein intake plays a major role in the maintenance of muscle mass while in a caloric deficit**. When you lose weight, the body losses more amino-acids that it retains and for that reason you must eat more dietary protein. "Think of your caloric deficit as a lion that's about to eat you. If you give the lion another source of meat, you might be able to get away without getting bitten." Armi Legge

Studies show that 1-1.4 grams of protein per lb of body weight (2.2-3g per kg) is ideal for fat loss.

So a 165 lbs male would eat about 165g of protein a day. A guy weighing 176 would eat about 175-180g of protein a day.

This formula does not apply for those significantly overweight. Protein is important for the maintenance of lean mass but in their case a big part of their body weight is fat. For them I'd recommend a smaller intake of protein, about 0.8g per lb of BW. So a 220 lbs guy would eat 220 x 0.8 = 175g of protein a day. When he gets to a lower body fat level, he can increase his protein intake.

During maintenance or during a lean gaining phase protein does not need to be as high as during a deficit. There is still however a protein threshold that needs to be met in order to maximize protein synthesis.

For a lean bulking phase I recommend getting between 0.8 and 1.3 g of protein per pound of body weight.

Fats

Fats are important for basic health. A diet very low in fats leads to hormonal imbalance, including testosterone production. On the other hand, a high fat diet does not support muscle growth and strength (because it doesn't leave much room for carbohydrates) and is also bad for satiety (fats are the most nutrient dense nutrient).

For this reason I recommend you set fat intake at 25% of total calories (doesn't matter if it's a cut, maintenance or bulk).

This moderate intake is enough to stimulate anabolic hormone release and also leaves plenty of room for carbs.

Carbohydrates

The rest of the calories will come from carbohydrates which will be the dominating macronutrient on this diet. This is mainly because carbohydrates support recovery and high intensity muscular work. Think of carbs as fuel for high intensity anaerobic workouts.

Carbs also support leptin, a hormone that regulates appetite and metabolism. High carbs will support the testosterone to cortisol ratio in active individuals, leading to better hormonal profile. They will also keep you satisfied and promote relaxation and better quality of sleep (some people can't sleep if they go low carb).

To calculate carbs multiply grams of protein by 4 and grams of fat by 9 and then add these two numbers together. Next, subtract this number from total calories. Take that number and divide it by 4 to get grams of carbs per day (1 gram of carbohydrates has 4 calories).

EXAMPLES

In this chapter you'll see how a person could set up their macros depending on their goal.

Example 1. Setting a fat loss plan

Weight: 187lbs or 85 kg (20% body fat)

Goal: Lose 15 lbs (7kg) of body fat

1. Determining Maintenance Calories

This person is moderately active and has a high percentage of body fat so to determine maintenance calories we'll multiply his weight by 14.

187 x 14 = 2600 kcal

2. Setting the caloric deficit

We use a 25% energy deficit. This means we multiply the maintenance calories by 0.75

2600 x 0.75 = 1950 kcal/day for fat loss

3. Setting the macronutrients

Protein: 0.9 x 187 lbs (2 x 85kg) = 170 g protein/day (we used 0.9 grams per pound because this person has a high body fat percentage and doesn't need that much protein)

Fats: 1950 x 0.25 = 490 / 9 = 55g fat

Carbohydrates: rest of the calories. We first find out how many calories do the protein and fats have together: (170 x 4) + (55 x 9) = 680 + 495 = 1175 kcal

Then we see how many calories we have left for carbs: 1950 – 1175 = 775 kcal for carbs

Then we divide that number by 4:

775 / 4 = 195 g carbs

Final numbers: 1955 kcal/day from 170g protein, 55g fats and 195g carbs

Example 2. Setting a bulking plan

Weight: 150 lbs or 68 kg (10% body fat)

Goal: Gain 7 pounds of muscle

1. Determining Maintenance Calories

This person is lean and is moderately active. To estimate maintenance we multiply his weight by 15

150 x 15 = 2250 kcal

2. Setting a calorie surplus

We start with a moderate calorie surplus of 10%. If it is not enough the person will adjust it as needed.

2250 x 1.1 = 2475 kcal/day for lean bulking

3. Setting the macronutrients

Protein: 1g x 150 (2.2 x 68 kg) = 150 g protein/day

Fats: 2475 x 0.25 = 620 / 9 = 69g fats (we round it up to 70g)

Carbs: rest of calories. We first find out how many calories do the protein and fats have together: (150 x 4) + (70 x 9) = 600 + 630 = 1230 kcal

Then we see how many calories we have left for carbs: 2475 – 1230 = 1245 kcal from carbs

Then we divide that number by 4:

1245 / 4 = 311 g carbohydrate (we round it up to 310g)

Final numbers: 2460 kcal/day from 150g protein, 70g fats and 310g carbs

HOW TO COUNT MACROS

The following are the Kinobody rules for counting macros:

Rule #1 – Keep it Simple

You want to keep your diet as simple and effortless as possible. Therefore I recommend using simplified rules. These include:

1. Don't bother counting calories from low amounts of fibrous veggies/greens

Trust me, there is nothing to gain from being obsessive compulsive and weighing/measuring your veggies. These foods are very high in vitamins/minerals/fiber and very low in calories.

I recommend consuming a moderate intake of fibrous veggies/greens with each meal without regard for calorie/macro intake.

If you eat more than 500g of veggies per day then I'd recommend you lower your total energy intake by 100kcal so it will automatically cover the calories from veggies. If you eat even more than that then you should start counting calories from them too.

2. Don't bother counting calories from low calorie sauces/flavorings (mustard, hot sauce, tomato sauce, soya sauce, rice vinegar)

Low calorie sauces add very few calories. Just be conscious of how much you use and there is no need to have to count that towards your calorie/macro intake.

3. Don't bother counting trace proteins

Starchy carbs usually come with a trace amount of protein but I recommend ignoring this. It's simpler just to count your protein from meat. So a big serving of potatoes might have 10g of protein. Consider that extra protein a bonus. When you start having to count protein from your starches it makes things very complicated when you are increasing or decreasing your carb intake. In addition, you don't want to reduce your meat intake because you are consuming more starches. Meat intake should stay relatively constant.

4. Don't worry about hitting your calories and macronutrients exactly

Aim to be within shooting distance of them. So within 5g of your fat intake, within 10g of your protein and carb intake and within 50 calories of your calorie intake. Trying to be 100% exact is ridiculous. Even if you are 100% exact, you won't be. This is because food labels and measuring your food isn't even 100% accurate. You can't be 100% accurate, you just need to be within shooting distance.

Rule #2 – Use an App

To really keep yourself accountable I recommend recording everything you eat with a handy smart phone app. I really like MyNetDiary.com, it's a simple and easy to use app that has many neat functions. You can customize your daily calories and macros, you can search practically any food, you can scan bar codes, you can create custom foods, you can even track your weight and measurements.

The customized food function is really helpful. You can find out how many carbs are in a serving of potatoes, rice, rice pasta and you can customize that food subtracting the trace protein and trace protein calories. This way it won't count the trace nutrients towards your calorie and macro count.

Rule #3 – Get an Electronic Food Scale

I strongly recommend you purchase an electronic food scale. This will allow you to quickly and easily weigh your food so you can accurately enter it into your app to determine the number of calories and macros your are consuming.

Rule #4 – Weight Your Meat Raw

There is a lot of confusion whether you should weigh your meat before or after cooking. For greatest accuracy you should weigh it in the raw state. However, you need to make sure that you are using the uncooked nutrition information when you enter it into your app. This is because cooking your meat can reduce the weight of the food by 25-35%. So if you are weighing your chicken raw and entering it into your app as grilled chicken your calorie and protein numbers will be much higher than they should.

On most grocery store bough meats the nutritional information is listed on the back. This refers to it in it's raw state. Go by those measurements. 100g of raw meat most likely has around 20g of protein. Depending on the type of meat, there could be anywhere from 0-20g of fat. These fat numbers need to be counted towards your macro and calorie intake.

Using IIFYM (If It Fits Your Macros)

Can I eat chocolate on a cut? If it fits your macros targets, then go ahead.

Can I eat pizza while gaining muscle? If it fits your macros, yes.

Can I eat cheesecake without gaining fat? IIFYM.
Can I eat peanut butter while cutting? IIFYM!!!

This is how the IIFYM acronym and trend was born. Around 2009-2010 the idea that you can eat anything you want on a cut without compromising your results started to gain popularity on the bodybuilding.com forum.
Being a new idea, a lot of people started asking if they can eat pizza, chips, bananas, chocolate… you name it. At first people took the time to write long answers to each comment explaining that they could eat whatever they wanted as long as it could fit in their macros. But more and more people kept on asking the same thing, over and over. Patience wore thin and Erick Stevens, a member of the forum, thought of just posting the acronym: "IIFYM".

Then everyone started using this acronym to answer those types of questions. Shortly after, IIFYM became a thing.

IIFYM done right and wrong

As with anything else some people take IIFYM to the extreme and eat only protein shakes, fast food and sweets because it fits in their macros. Yes, strictly for body composition it makes no difference but the lack of vitamins, minerals and fibre can lead to health problems in the future. In addition, packaged food usually contains unhealthy fats, preservatives and other chemicals which can cause problems when consumed in excess.

The key to making IIFYM work great is to get the majority of your calories (80-90%) from whole foods and the rest from whatever you want. Eric Helms said it very well:

"The truth is there is nothing inherently unhealthy about dirty foods, it's rather that if they dominate your diet, you generate deficiencies as a result. I tell my clients that their diets should be ***inclusive*** *rather than* ***exclusive****, meaning that provided you hit your macros, get sufficient fruits, vegetables and fibre, and you have some macros left over, then sure, have your snickers bar. In fact I'd hedge a guess to say that results on the diet will be better this way, as you're less likely to fall off the wagon."*

The easiest way to create Meal Plans

If you don't want to constantly add what you eat into an app, the alternative is to use a meal plan. After creating hundreds of meal plans for myself and for clients I've finally found a very efficient way to do it. Here it is step by step:

1. Choose your preffered meal frequency and food distribution

As long as the total macronutrient intake for the day is optimal, how you structure your diet does not really matter. Research shows that small and frequent meals do not speed up the metabolism, eating a large meal in the evening doesn't make you fat, you don't need to eat protein every 3 hours and you can skip a meal or two without going catabolic.

This means you can have as many meals as you want and you can choose at each time of the day you'd like to eat the majority of your calories.

So let's say your macros are 150g protein, 60g fat, and 180g carbs. You can split your macros like this (or any other way):

Two meals a day (Intermittent Fasting)

2PM – 70g protein, 30g fat, 80g carbs
8PM – 80g protein, 30g fat, 100g carbs

Three meals a day

Breakfast – 40g protein, 20g fat, 50g carbs
Lunch – 50g protein, 20g fat, 60g carbs
Dinner – 60g protein, 20g fat, 70g carbs

Three meals a day (Intermittent Fasting)

1-2PM – 50g protein, 30g fat, 50g carbs
5PM – 50g protein, 20g fat, 50g carbs
8PM – 50g protein, 20g fat, 80g carbs

Four meals a day (From my experience 4-5 meals a day work great for a lean bulking phase but its not best suited for a cut. Most people never feel satisfied after a small meal and they lose a lot of time cooking, eating and cleaning. For this reason I think a better strategy during a cut is eating only 2 or 3 big meals a day.)

Breakfast – 30g protein, 15g fat, 40g carbs
Lunch – 40g protein, 15g fat, 40g carbs

Snack – 30g protein, 10g fat, 40g carbs
Dinner – 50g protein, 20g fat, 60g carbs

2. Choose 3 or 4 sources of protein and 3 or 4 sources of starchy carbs that you'd be willing to eat every day

Now we choose the foods that we'll make the base of our diet.

I personally eat the same foods every day and I really enjoy it. I spend very little time cooking and I prepare them differently when I get bored.

The foods I eat everyday are:
Lean protein – chicken, pork tenderloin, eggs and low-fat cheese
Starchy carbs – potatoes, whole wheat bread, rice, pasta, and bagels
Fruits and Veggies – a large variety
Fats – I usually get my fats from meat and eggs but for cooking I use sunflower oil, olive oil and butter

Now it's your turn. Choose 3 or four sources of protein and carbs that you like and would like to eat every day.

3. For each meal of the day, create 3 or 4 options that have the same macronutrient profile

If you eat three meals a day you create 3 or 4 options for the first meal, 3 or 4 options for lunch and 3-4 options for dinner.

So for each meal of the day you can choose any one of the 3 or 4 options you created.

Because the meals have the same number of calories and macros you can choose a different option for each meal and easily create countless combinations!

Let me give you an example:

First meal of the day

Option 1 (Meat & Veggies)

- 250g chicken breast – 50g protein, 4g fat, 250kcal
- 300-500g greens/veggies (such as peas, broccoli, carrots, etc) – 30g carbs, 150kcal
- Two slices of bread – 30g carbs, 150 kcal
- 15g of butter / 10g oil – 10g fats, 90 kcal
  Total: 50g protein, 14g fats, 60g carbs, 640 kcal

Option 2 (Egg whites omlet & Veggies)

- 3 whole eggs and 8 egg whites – 50g protein, 15g fats, 360 kcal
- 300-500g greens/veggies – 30g cabrs, 150 kcal
- Two slices of bread – 30g carbs, 150 kcal

  Total: 50g protein, 15g fats, 60g carbs, 660 kcal

Option 3 (Tuna, Bread & Veggies)

- 1 big can of tuna (without oil) – 42g protein, 190 kcal
- 3 slices of bread – 44g carbs, 230 kcal
- 400-400g greens/veggies – 20g carbs, 110 kcal
- 10g oil/butter – 10g fats, 90 kcal

  Total: 42g protein, 10g fats, 60g carbs, 630 kcal

Second meal

Option 1 (cottage cheese & fruit)

- 350g low fat cottage cheese – 50g protein, 7g fat, 315 kcal
- 200g berries – 15g carbs, 70 kcal
- 1 medium apple – 20g carbs, 80 kcal

  Total: 50g protein, 7g fat, 35g carbs, 460 kcal

Option 2 (Quest bars & fruit)

- 2 Quest Bars – 42g protein, 16g fat, 40g carbs, 380 kcal
- 1 medium apple – 20g carbs, 80 kcal

  Total: 42g protein, 16g fat, 60g carbs, 460 kcal

Third meal

Option 1 (chicken thighs & potatoes)

- 250g chicken thighs – 50g protein, 13g fats, 310 kcal
- 400g potatoes – 80g carbs, 360 kcal
- 10g butter – 7g fat, 60 kcal
- Some veggies and low fat souce

  Total: 50g protein, 20g fat, 80g carbs, 730 kcal

Option 2 (pork tenderloin & potatoes)

- 250g pork tenderloin – 50g protein, 18g fat, 370 kcal
- 400g potatoes – 80g carbs, 360 kcal

- Some veggies and low fat souce
  Total: 50g protein, 18g fat, 80g carbs, 730 kcal

Option 3 (beef & rice)

- 250g beef – 55g protein, 11g fat, 360 kcal
- 5g oil – 5g fat, 45 kcal
- 100g rice (250g cooked) – 80g carbs, 340 kcal
- Some veggies and low fat souce
  Total: 55g protein, 16g fat, 80g carbs, 745 kcal

So this is how a person's meal plan might look like. Now he gets to choose what to eat every day. Today he might have option 1 for his first meal, option 1 for his second meal and option 3 for his third. Tomorrow he might have option 2 for his first meal, option 1 for his second meal and again option 3 for his third.

When he gets bored with these meals he can create other options that have the same macronutrient content.

It's really this easy!

CONCLUSION

First of all I want to congratulate you for reading this far! This shows you're dedicated and willing to put in the effort necessary to reach your goals. Awesome!

Using the information in this short guide you can create a great nutrition plan for fat loss, muscle growth or maintenance. In fact, I'd say you now know more practical information about nutrition than 90% of the population.

Getting your nutrition right is really simple if you follow the basics. There is no point in concerning yourself with supplements, wonder plants, exotic extracts and other things like that. If you want to be a master, you have to be a master of the basics.

Apply the information in this guide and I'm sure you'll get to your physique goals.

Thank you for taking the time to read this guide. For any questions, suggestions, complaints, compliments or any other form of feedback, you can find me at:

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Facebook: www.facebook.com/thinkeatlift

Blog: www.thinkeatlift.com

I wish you great success!

Radu Antoniu

COMPLETE DIET & TRAINING PROGRAMS

In this report we've covered the fundamental nutrition strategies to building a Kinobody physique.

The thing is though - this is only the first step. To build the physique you really want, you also need a productive lifting protocol.

To help with this, I'd highly recommend the full Kinobody programs. I've been following them for more than a year now and I am very happy with my progress (check out my Instagram).

THE KINOBODY FITNESS SYSTEMS

Stage #1:
The "Warrior" Physique

The Warrior Physique development is characterized by lean, compact musculature and incredible definition. This is the lean "wiry" look of Henry Cavill from Immortals.

(Note: If you have any fat to lose, this is where you'll want to start for leaning down and revealing incredible muscle tone.)

If this is the physique type you want to build or you want to focus first on leaning down for awesome muscle definition, then the Warrior Shredding Program is for you.

Click here to check out the Warrior Shredding Program

Stage #2:
The "Greek God" Physique

The Greek God Physique development is characterized by dense, proportionate muscle mass while maintaining a solid level of definition. This is the look of Brad Pitt in Troy, or Stephen Amell in Arrow.

If this is the physique type you want to build, then the Greek God Program is for you.

Click here to check out the Greek God Program

Stage #3:
The "Superhero" Physique

The Superhero Physique development is characterized by great muscle size, superhero-like proportions and sleek definition. This is the muscular look of Chris Evans in Captain America, Chris Hemsworth in Thor, and Henry Cavill in Man Of Steel.

If this is the physique type you want to build, then the Superhero Bulking Program is for you.
Click here to check out the Superhero Bulking Program

AGGRESSIVE
FAT LOSS
THE ULTIMATE STRATEGY FOR LEANING DOWN QUICKLY
GREG O'GALLAGHER
KINOBODY.COM

Aggressive Fat Loss (v2.0)

If your main priority is to accelerate fat loss then this program is for you. It's similar to my Warrior Shredding Program, but we're going to be using more "aggressive" strategies to push fat loss into high gear.

You won't be building much muscle on this program, but you'll notice that as you slice off the fat, you will reveal pretty remarkable definition.

If you have a lot of fat to lose, or simply want to lean up really quickly (7-10 pounds of fat per month), then this is your program.
Click here to check out the Aggressive Fat Loss Program