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Daniel Lee

NUTRITION FOR POWERLIFTERS



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Introduction.

Nutrition is often the missing piece in a powerlifter's toolkit. What we eat is our fuel, our building block and, let's be honest, what most of us enjoy the most.

But we're often left a bit flummoxed about what to eat, when and how much. The media, both mainstream and social, has a big hand in this - it's incredibly rare to get a really good piece of news or a documentary that properly explains how it should work. Mainly because a lot of the time this would make for pretty boring content.

So, here I am, writing this and hoping that it doesn't come across as boring as broccoli and rice for every meal.

What We'll Cover.

As I said above, nutrition can come across a little dry. So, with that in mind, I'll chunk it up and make it obvious what each section is about, so that if you do already know those bits, you can flick past it and move on.

What we will cover -

- Energy Balance and Calories.
- Macronutrients IIFYM and Clean Eating.
- Micronutrients.
- Nutrient Timing Pre and Post Workout.
- Weight and changes.

I know a lot of people will have a decent understanding of macronutrients and calories and that is a great start, however, micronutrients can often get ignored (or at least left at the wayside). So, I would suggest a rudimentary flick through all of the chapters just so that you're fully ready to tackle a new diet.

Enjoy.

My hope is that you can learn from this and take it forward into your training. Anything that can help you go from one level to the next is massively important in powerlifting, and quite often good nutrition is the major difference.

Disclaimer.

Most of the nutrition courses I have done were from America and Canada. So I mainly use pounds rather than kilograms in my equations. I'm sorry, Britons.

Also, I should point out, I'm not a doctor or a registered dietitian. Any information here is meant as a guide and not a set way of life.





ENERGY BALANCE AND CALORIES

Energy Balance.

So, we're going straight in. Luckily for you, we don't have to go into things like the Kreb's Cycle (which I genuinely stored in my memory for as long as my nutrition exams lasted and then immediately forgot).

However, what we do need is an understanding of how much energy you need, how much you use and how much you get from food. Without which you're just eating to fulfill hunger - which, by the way, is fine, but for a powerlifter or athlete who wants to improve their performance as much as possible they need to use nutrition as a tool.

What is it?

In the human body our energy is measured in calories. So, the energy balance is the amount of calories consumed vs the amount of calories burned.

So, basically, eating more than you burn will result in an increase in body weight. Whereas eating fewer calories than you burn will result in a decrease in body weight. Sounds easy right?

Kind of. But we all have a different level of what calories we need and we all burn them a bit differently. Especially if we're more or less active than others. Our body weight also affects our overall energy.

So, how do we figure out what you need?

Basal Metabolic Rate and Daily Calories.

Firstly, we need to figure this out. I once read an analogy that this is akin to how much petrol/diesel a car would need if it were to sit in idle - as living beings, we don't actually turn off. So this is how many calories we would need to maintain our body weight, as well as our basic bodily functions, if we were to just sit still all day.

I'm sure you can already see the potential next step. We don't just sit still all day - we at least get up and move about most days, and on a lot of those we also do a fair bit of strenuous exercise. So, once you have your Basal Metabolic Rate (I'll explain how in a mo) you will then multiply it by 1.2-1.9, depending on just how active you are. And this activity includes exercise as well as general activity, like walking and working etc.

So, how do you work it out?

To be completely honest with you, there are a few equations and they're all a bit too confusing for an ebook of this standard. ¹

Generally, I would suggest these formulas to figure out your daily calories -

To lose weight - body weight (in lbs) x 12-13

To maintain weight - body weight (lbs) x 15-16

To gain weight - body weight (lbs) x 18-20

Let's say we were to take an 180lbs male as our example -

To lose weight - 180lbs x 12 = 2160 calories

To maintain - 180lbs x 15 = 2700 calories

To gain weight - 180lbs \times 20 = 3600 calories.

Let's also look at how that could affect a 120lbs woman too -

To lose weight - 120lbs x 13 = 1560 calories

To maintain - 120lbs x 16 = 1920 calories

To gain - 120lbs x 20 =2400 calories.

You might notice that I used the higher end of each suggestion for the female example - I didn't want to contribute to the idea of women having to eat less so I used the higher example, that's all.

¹ If you want to find the equations I would suggest Googling (or your equivalent favourite search engine) Mifflin-St Jeor, Harris Benedict or Katch-McArdle equations.





Macronutrients. IIFYM and Clean Eating.

Now, you should have a good idea of roughly how many calories you should be eating. But how do you make them up?

Firstly, we need to go over your macronutrients - they are your protein, carbohydrates and fat. They each have very different roles within your body.

Protein.

Protein is always referred to as your building block. And this is pretty apt, actually. It is vital in muscle building and repair. It is also very valuable in keeping you feeling full and satiated.

Protein is equal in calories to carbohydrates with 4 calories per gram.

Another, lesser known, characteristic of protein is that it is *thermogenic*. What does thermogenic mean, you ask? Basically, it means it produces heat - however, in this case, it means it helps to burn a little fat. Not a lot, mind, so don't go making your diet 90% protein - your plumber won't thank you for that.

The heat producing factor of protein actually means that if you were to take two 2000 calorie diets, one with 120g of protein and one with 200g protein in it, the latter would produce more fat loss than the former.

So, if you're in a maintenance diet, or a fat loss diet, your protein will be pretty high. And, maybe a little counterintuitively, when in a gaining phase, your protein will be a little lower.

How much protein do I need?

The general advice is that you aim to consume 0.8-1.2g per lb of bodyweight. Meaning our 180lb example from earlier would be on 144g to 216g per day, while our 120lb woman would be looking at - 96g to 144g per day.

If you're in a weight loss phase I would suggest the higher end of this so 1g-1.2g per lb of bodyweight.

If you're maintaining then I'd say about the same - keeping it at 1g-1.2g per lb. For gaining, let's aim for 0.8g to 1g per lb.

Fat.

Fat is quite often vilified by the media. It's mainly because it is the most calorific per gram - it has 9 calories per gram. However, the hormonal and nutritional value it represents makes it incredibly vital.

Fat helps our hormone production as well as the transportation of our vitamins and minerals throughout our body. Meaning that we could be eating incredibly nutritious food but not absorbing the benefits due to lack of fat intake.

How much fat do I need?

The general recommendation for fat intake is between 0.35 and 0.6g per lb of bodyweight. So, our examples before would be looking at -

180lb male - 63g - 108g of fat,

120lb female - 42g - 72g of fat.

Generally, the difference would be personal preference. Lower fat would also allow for a slightly higher carbohydrate allowance.

Saying this, the majority of women tend to do better with high protein: high fat diets. So, the 120lbs female is far more likely to be hitting 72g of fat than our 180lbs male is likely to hit 108g.

Carbohydrates.

Carbohydrates aren't bad for you - not at all. They're generally seen as our main source of energy and they are generally what will be reduced or increased depending on your weight goals with your diet. Which is due to how important protein is for our muscle mass, and how important fat is for everything else.

We can live without carbohydrates, but that doesn't mean we should. You can also drive your car for a long time without checking the oil, but it's not really advisable. Carbs are generally the bigger portion of our diets and most of the time it should be kept that way.

How many carbs do I need?

Basically, you figure out carbohydrates by first working out your calories, then your protein and then your fat.

So, let's use our 120lbs female who wants to gain weight as our example.

Calories - 2400

Protein - 120g (1x120lbs)

Fat - 60g (0.5x120lbs)

So, now we figure out the calories for 120g of protein and 60g of fat which is -

(120x4) + (60x9) = 1020

480 + 540 = 1020

We now take this number (1020) from our overall calories of 2400 -

2400 - 1020 = 1380 calories.

Now, 1380 calories are what we have left for carbohydrates. So, we divide 1380 by 4 to figure out how many grams of carbohydrates we need, so -

1380/4 = 345g

Now, I know 345g sounds like a lot of carbohydrates, but keep in mind that this is for gaining weight while also training hard. There are also a few ways of bringing this down if it doesn't quite work for the person too - you can adjust the overall calories, protein or fat to decrease the amount of carbs.

There's a fair bit of freedom available here.

If It Fits Your Macros vs Clean Eating.

A lot of people are now aware of the idea of If It Fits Your Macros (IIFYM) when it comes to diet. Basically, for weight control, your diet only needs to be under your calories burned for weight loss, or over calories burned for weight gain. So, how you make up those macros doesn't really matter so much.

This is basically quantity over quality. You could have 200g of carbohydrates from a carbonated drink, or 200g of carbohydrates from rice and vegetables and your body will react the same way in terms of weight.

However, it comes down to more than just weight management. H How you feel matters. This hasn't turned into a therapy ebook, don't worry. But living off of sugary, processed foods will leave you feeling more sluggish than if you had the majority of your food as unprocessed, whole foods.

You also need to consider your performance. I will touch on pre and post workout foods later on, but the food you eat upto 8 hours before you train can affect your session. As well as the foods you eat upto 6 hours after the session can affect your recovery and gains.

This leads us nicely into micronutrients.



Micronutrients.

Basically, the micronutrients are the vitamins and minerals in your food. I could break them down massively here, split them into fat soluble and water soluble vitamins etc, but there isn't really much point as it's beyond the scope of this ebook.

Basically, whole foods, including vegetables, fruit and meat/fish will cover you for most minerals and vitamins.

Granted, if you're vegan or vegetarian you will need to compliment your diet with some supplements to make up for the lack of micronutrients. A good suggestion for vegans/veggies would be iron supplements and maybe BCAAs (one of the rare times they come in use).

A lot of plant based proteins or protein alternatives can lack some of the essential amino acids needed for protein. Basically, most meats contain 'complete' protein, i.e all of the amino acids, while most alternatives will only have some of them and be 'incomplete'. So, BCAAs can fill a gap here.

(They're also okay to use if you like to train fasted).

As a rule of thumb, try to include some vegetables with each meal and maybe take a multivitamin if you're lacking. This isn't a cure-all fix but it's better than nothing, for sure.

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NUTRIENT TIMING.

Pre and Post Workout.

Nutrient Timing - Pre and Post Workout.

In general, nutrient timing is not that important.

There you go, end of chapter.

Not really. It isn't that important, except in the small window of pre and post workout nutrition. The reason I say nutrient timing isn't that important is that in general, as long as you hit your daily targets most of the time (say 80-100%) then you will be on your way to your goals. When clients ask me about nutrient timing I generally tell them to just spread it out as best as they can without feeling sick from it. Basically, avoid fasting and binging cycles as best as you can.

(Unless you're doing intermittent fasting and prefer that, then obviously take a long time without eating as long as this doesn't result in overeating afterwards).

Pre-Workout.

The general goal of the pre-workout meal is to fuel your workout and also create an anabolic environment for your training - meaning to give you the energy to train, as well as to put your body in the best place to use the training for muscle and strength growth.

Macro wise you should aim for -

Carbs - 0.5g per lb

Protein - 0.25g per lb

Fat - 0-20g

This means that our 180lb male from earlier would aim for -

Carbs - 90g

Protein - 45g

Fat - 0-20g

Calories - 540 - 720.

The amount of fat depends on how close to the training you are eating. If you're eating very close to training then have lower fat, if you're eating earlier then have a little more fat.

Also, this pre-workout meal should be consumed roughly 1-1.15 hours before you train.

Obviously, if you're dieting down and don't have as many carbs to play with you can reduce this, but I'd keep the protein and fat protocols the same in order to keep you full through the workout.

How about the fasters amongst us? (as well as those of us who train long, hard sessions, or in a big calorie deficit, or you're elite and wanting to really optimise training).

(Catchy subtitle, I know).

Some of us like to train fasted, I don't know why, but apparently it's personal preference. So, here's a little help for those of you.

Generally, the long training sessions won't really apply to powerlifters as its generally reserved more for endurance athletes - not those who take 3-5 minutes between sets. You know who you are.

Intra-workout fuel.

It is advisable to have fast absorbing carbs from about 30 minutes into your session. These carbs should be at a rate of 0.5g/minute of training.

So, if you train 90 minutes, after the 30 minute mark you should drink about 45g of carbohydrates.

You should also add in either 5-10 gram of EAAs or 10g of whey protein to create that anabolic environment.

Post-Workout Fuel.

Your anabolic window isn't really a 30 minute hit it or miss it case. In fact, you have until about 3 hours after your workout to really take advantage of nutrition. Meaning that your pre and post workout meals should be consumed within a 4-5 hour range including training.

What macronutrients you should aim for -

Protein - 0.25g/lb

Carbohydrates - 0.5-1.5g/lb or 0.25g/lb if cutting.

Fat - 10-20g

So, for our 120lb female, this could look like -

Protein - 30g

Carbs - 60g-180g if gaining, or as low as 30g when cutting down.

Fat - 10-20g

Calories - 330-1020

It's quite a range, but it really depends on your goals and whether you're aiming to lose, maintain or gain weight.

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WEIGHT AND CHANGES.



Weight - Body weight and Weight Classes.

As with all weight class related sports there is a big emphasis on body weight in powerlifting. So much so that people try to squeeze themselves into smaller weight classes for better wilks. Whereas most of the time they would benefit from actually feeding and nourishing their bodies in a weight class that they naturally stick to better.

I am talking from experience here - I've competed between the weights of 85kg and 103kg. I've felt strongest around the mid to high 80s mark.

Most people will benefit from walking around most of the year in their weight class, or very close to it, and then competing there. Rather than drastically cutting or increasing weight beforehand.

As I mentioned above, what you eat upto 8 hours prior to a work out can affect it - a powerlifting competition has to be seen as one big workout. If you have a 2 hour weigh in and have starved yourself before it *you are negatively affecting your performance*.

A consistent diet, training plan and sleeping regimen is by far the best preparation for a competition. Even if cutting weight pre competition only results in 1-3% loss of performance, that's still 1-3% you could be gaining on your total.

Basically, find the weight class that suits you and don't bend yourself to a weight class that doesn't fit.