EAT TO **PERFORM**

ETP

The Wave Method

The Eat To Perform Solution for Sustainable Fat Loss

Dr. Mike T. Nelson & Paul Nobles

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For more information, go to www.eattoperform.com.

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Table of Contents

About the Authors

Dr. Mike T. Nelson has spent over 18 years of his life learning how the human body works, specifically focusing on how to properly condition it to burn fat and become stronger, more flexible, and healthier.

Mike has a PhD in Exercise Physiology, a BA in Natural Science, and an MS in Biomechanics. He's an adjunct professor and member of the American College of Sports Medicine. In addition, he's been asked to share his techniques with top government agencies including the military's elite research group, the International Society of Sports Nutrition, the American College of Sports Nutrition, and the National Strength and Conditioning Association.

As a result of his education and experience, Mike looks at systems of the body differently. Realizing that the majority of people were disappointed with the low-carb approach to fitness and weight loss, he began searching for a way for people to increase metabolism, decrease body fat, and improve overall energy. Through his research, he developed the concept of metabolic flexibility, which became the focus of his doctoral dissertation.

The techniques he's developed and the results Mike gets for his clients have been featured in international magazines, in scientific publications, and on websites across the globe.

My name is Paul Nobles, and I'm the founder of Eat To Perform. Eat To Perform started as a basic idea –working out while in an extreme caloric deficit kept landing me back in the same spot over and over again, sometimes worse off than I was when I started.

After many failed attempts, I decided to make performance a priority and just EAT. This strategy needed refinement, but it was a good start. It changed my life and has changed the lives of thousands of people since then. I hired experts to help me refine the basic plan. The majority of this book is written by Dr. Mike T. Nelson for a reason – he's an authority on exercise physiology and quite literally a doctor on the topic of fat loss and adaptation. Nothing I could say could trump his knowledge or credentials.

Here's what I bring to the table: I'm a nerd interpreter. My gift is an ability to take complex ideas and break them down into actionable plans. You will read many ideas that will help you solve the puzzle, and it's always my hope that one of those things flips the switch for you. Truthfully, though, that's not the secret. The secret isn't in the numbers or the science, it's mentally allowing yourself to strip down in front of a mirror and make peace with that person. If you need to have a good cry, get it out. Everyone needs a fresh start now and then, including me. I do this exercise once every 3 months or so.

We are all a "work in progress". The key is not to get rid of the excess fat you think holds you back in the gym, it's to get rid of whatever it is you think is still holding you back that you actually lost a long time ago. This idea will take time to sink in, but if you

don't get this part right, you will never get the aesthetic look you're after. You're just not starting from the right place mentally.

Eat To Perform is about building up the mental fortitude to become that "next level" version of yourself that you have been holding back. Many people will ignore the expansion parts of this book and focus on the deficit part. That's a gigantic mistake – the deficit part has been done to death. It's the expansion piece that has changed the lives of tens of thousands of people.

Ultimately, as human beings we are meant to thrive, and every day we should be working toward things and ideas that propel us to thrive. That's what the Wave Method is about. I hope you enjoy it, because even to this day, it changes my life regularly.

1

The Wave Method

If you've been following a "do more/eat less" method for fat loss, you've probably realized that you eventually reach a point of diminishing (or non-existent) returns. You stall out for long periods of time, and that doesn't get you where you want to go. To make matters worse, you feel like crap and can't wait to end your diet so you can eat all the food you've been avoiding. That's not a winning formula.

Here's the problem – chronic dieting tends to result in decreased lean mass, decreased work capacity, and decreased metabolism. And the longer you spend in a calorie deficit, the longer it takes to recover from the ill effects of energy deprivation and the more sensitive you become to fluctuations in energy intake.

While it's a bit simplistic to say it's *only* about "calories in/calories out", at the end of the day you're going to have to be in a caloric deficit to lose body fat. The Wave Method is Eat To Perform's solution for a lifetime of sustainable results. In a nutshell, it's a series of "waves" where you'll focus on systematically improving performance, building lean mass, and attacking fat loss goals for short periods of time.

We have thousands of Science Lab members having great success with the standard Eat To Perform recommendations for calories and macronutrient (protein, fat, and carbohydrate) ratios. Many people will never need to venture outside of that framework.

The Wave Method includes a more aggressive phase that focuses on fat loss. We call this the Performance Focused Fat Loss or PFFL phase. This cutting phase can really only be done effectively for 8 weeks at a time before the body needs a break. We realize this concept is very attractive to chronic dieters, but it won't work if you jump into a PFFL phase without putting in the work of expansion first. We'll talk at length about what that looks like in this book.

The Wave Method can be effective for anyone, regardless of your current body fat percentage. It's an approach we've used with a variety of members, from those new to training with a lot of fat to use to competitive Crossfit Games athletes.

It's been proven time and time again that short periods of focused fat loss are vastly superior to eating at a deficit for long periods of time (not to mention more sustainable). The Wave Method outlines how to alternate between cycles of expansion and performance-focused fat loss to reach your body composition goals without tanking your work capacity and wrecking your hormones in the process.

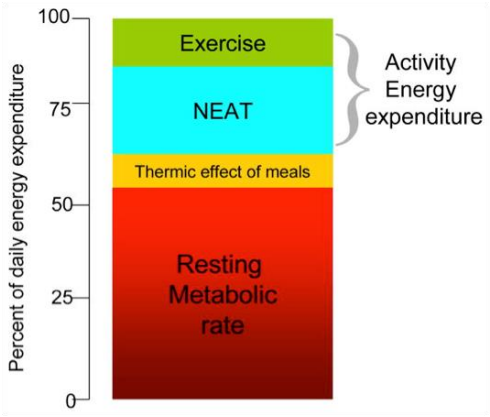
2

First Things First

Before we get into the specifics of the Wave Method, we need to discuss a few key concepts. In this chapter, we'll cover Total Daily Energy Expenditure (TDEE or Wave Numbers), macronutrients (protein, fats, and carbohydrates), and exercise.

TDEE – Your Wave Numbers

TDEE, or total daily energy expenditure, is the number of calories you use in a day. We call this your Wave Number, and it is divided into four main components: Exercise, TEF (thermic effect of feeding), NEAT (non-exercise activity thermogenesis), and RMR (resting metabolic rate).



The vast majority of your TDEE, right around 50%, is resting metabolic rate or RMR. Some of the literature puts this as high

as 75%. In any case, it makes up a very large portion of your TDEE. And that's literally your *resting* metabolic rate. When it's measured in the lab, the subjects are lying down and aren't doing anything.

Next up is TEF, or the thermic effect of feeding. It's the amount of calories your body requires to digest, absorb, and process your food, and typically makes up about 10% of your TDEE.

NEAT, or non-exercise activity thermogenesis, also makes up a fair amount of your TDEE. It's a fancy term for any activity between rest and intentional exercise. Interestingly, in most cases NEAT tends to make up more of a person's TDEE than exercise.

Finally, we have exercise. Most people assume exercise makes up a much higher percentage of TDEE than it actually does – the biggest contributors to TDEE, by far, are RMR and NEAT.

These four components make up the total calories you burn in a day. One of the first and most important things you can do to maximize your performance while moving toward a more favorable body composition is to match your energy input with your energy output. Knowing your TDEE is a critical step in this process.

You can get an estimate of how many calories to eat on training days by using the free ETP Calculator. For recovery days, reduce carbohydrates (and therefore calories) since you won't be burning as much on those days. If you'd like more help and support from coaches and others using the same methods for fat loss, join the Science Lab. Our members get TDEE/Wave Number recommendations (one number for training days, and one number for recovery days) and guidance from our coaches to find that sweet spot where energy input matches energy output. It's also a thriving community of folks committed to getting sustainable results while enjoying life, and supporting one another while they do it.

PAUL'S NOTES

Eat To Perform is so successful for so many people not because of the deficit, it's because people are eating their Wave Numbers most of the time. The "secret" is the periods where calories are up, not down. It's the time you spend increasing your lean mass and work capacity that sets you up for increased metabolism and overall long-term health.

Macronutrients: Protein, Fat and Carbohydrates

Macronutrients are proteins, fats, and carbohydrates. Second to getting your TDEE/Wave Numbers dialed in, eating the proper mix of these three macros will be the most important factor in losing fat while maintaining or improving your performance.

Protein will be kept high every day, and should be set at 0.7-1.0g per pound of body weight. This is critically important, and will help protect and increase your lean muscle mass. Whey, milk, egg and lean meats are going to be your best protein sources.

Fats are important for hormone regulation and satiety, among other things. Most people are deficient in Omega-3s, so we recommend taking 1-2g of fish oil daily in the form of EPA+DHA. To improve the ratio of Omega-3 (anti-inflammatory) to Omega-6 (pro-inflammatory) fats, you'll want to cook with coconut oil or butter and use olive oil for salads while limiting soybean and corn oils. If you're coming from a paleo background, you'll probably be eating significantly less fat throughout the day than a paleo dieter typically consumes. A good starting point is about 0.5g of fat per pound of body weight.

The remainder of your calories will come from carbohydrates. This macronutrient is the most variable from person-to-person and day-to-day. If you're using the ETP calculator, let it

solve for carbohydrates. This number will be how many grams of carbs you should eat on your heavy training days (Crossfit, heavy weightlifting, HIIT, etc.). On lower activity days (think yoga, hiking, other low intensity steady state activities), eat fewer carbs. On your recovery days, go a little lower on carbs. But don't go too low, and don't try to go low-carb every day. Doing so will begin to affect your metabolism and performance, and though you may lose weight more quickly, this is not typically a sustainable way to keep the weight off.

PAUL'S NOTES

Higher activity days require more starchy carbs. Potatoes and rice are great go-to sources. These are great times to eat high calorie treats you enjoy too, especially if they're carb-dense. There are no cheat days when you're eating to fuel performance – all sorts of foods serve a purpose.

Low activity days require fewer carbs. What I think you will ultimately find is that carbs don't need to drop too much, and that cutting carbs too low is detrimental in terms of feeling satisfied and happy. Moderation is key here.

Recovery days require even fewer carbs. These days may be a bit uncomfortable once you begin eating at TDEE on your training days. Don't eliminate starchy carbs completely, but try to make the best use of them by eating them at dinner and before bedtime.

Don't go low carb every day. Going super low carb to look good in a bikini generally lands you with more pounds and a watery, bloated look once you start eating carbs again, and that's just the aesthetic part. Carbs are critical for having a high-functioning metabolism, and that should be a priority for everyone.

Macro Timing and Metabolic Flexibility

Timing your macro intake is something that can be tackled once you have a good plan for eating at your Wave Numbers most of the time and getting in the right amount of each macronutrient. If you're coming from a low-carb background, you'll want to start to introduce more carbs in by eating (or drinking) them about half-way through your workout.

Once you get used to that, you can begin to add carbs before and after your workout. This gets us into the concept of metabolic flexibility, the foundation of ETP's nutrition protocols. Basically, you want to teach your body to burn carbohydrates when training, as carbs are arguably the best fuel source for high intensity training like Crossfit, weight lifting, and HIIT. The rest of the time, we want your body burning fat. The best way to accomplish this is to eat most of your carbs around your workouts and at dinner/bedtime, and mostly fats and protein the rest of the time.

PAUL'S NOTES

You read that right, we did just say to eat carbs at dinner and bedtime. Oprah and Bob Greene got it wrong – eating carbs at night won't make you fat. Sleep is absolutely critical to effectively lose fat and improve performance. The **worst** thing you can do is go to bed hungry. That will shorten your sleep cycle and make everything suck the next day. We'll talk more about sleep a bit later, but the goal is to get a comfortable night's sleep by going to bed on a full stomach. And if you work out in the morning, a carb-rich meal will improve your performance in the gym.

Micronutrition

Macronutrients (macros) are carbohydrates, fats and proteins, and you need them in large quantities. Micronutrients

(vitamins and minerals, essentially) require smaller amounts, but they have very large effects in the body. As we mentioned earlier, to lose fat you'll need to be at a caloric deficit at some point. The goal there is to deplete the body of some energy, but not nutrients.

The research in both mouse and human studies shows that micronutrition is an important aspect of fat loss. Obese patients frequently show micronutritional deficits, and fat cells were smaller in mice that were fed micronutrients. In addition, mice that received micronutrition supplements got better at fat loss and had better triglyceride levels.

Try to get 1-2 servings of vegetables per meal. Focus on getting better with this, not on getting it perfectly right on day one. Expand the variety of vegetables you eat – walk around the produce aisles and find something you've never tried before. Each type of plant compound is going to have different nutritional benefits, and scientists are only just now beginning to identify all the different beneficial compounds in the plants we eat.

Get plenty of variety with your fruits and veggies by eating a variety of colors each day. Prepare them ahead of time so they're ready to enjoy with your meal. Fruit/veggie shakes work really well. Real food is always best, but you can use a green supplement as a backup on occasion if you just aren't able to get fresh produce.

PAUL'S NOTES

People think flexible eating means inhaling vast quantities of junk food. That couldn't be further from the truth. Whole foods make up the majority of our Science Lab members' daily intake. But there's also room for treats in an athlete's diet, and forcing yourself into a boring, restrictive food box isn't motivating or sustainable. Look for foods that you can add to your diet to make you more awesome instead of restricting yourself from eating "bad" foods.

Exercise

Exercise, primarily anaerobic training like weightlifting and high intensity intervals, helps maintain and build muscle mass (assuming you're eating enough protein). Increased muscle mass increases RMR, and RMR is the single biggest factor in determining how many calories you burn.

In addition, as you do repeated bouts of high-intensity exercise, you tend to burn more fat after training (it's called the EPOC effect). So we get a 3-fold benefit from exercise, especially anaerobic training: the calorie burn from the exercise itself, the increase in RMR due to increased muscle mass, and a period of higher fat burning immediately after exercise.

Aerobic exercise like biking and running is not the devil. The research shows that aerobic training keeps TDEE from dropping when calories were restricted. If aerobic training (i.e., "cardio") is something that you love, go for it. Just don't miss out on the benefits you'll get from lifting heavy stuff on a regular basis.

An exercise template that seems to work well for fat loss is 3 days a week of lifting stuff, 2 days a week of low-intensity steady state exercise, and one additional day of HIIT (high intensity interval training). There are lots of approaches that work; this is just one way to go about things.

Summary

Your TDEE (total daily energy expenditure) or Wave Number is how many calories you burn in a day and is comprised of four components: RMR (resting metabolic rate – calories burned at rest), NEAT (non-exercise activity thermogenesis – calories burned through daily activities like walking), TEF (thermic effect of feeding

– calories burned to digest food), and exercise. RMR makes up the largest portion of your TDEE, followed closely by NEAT.

The proper mix of protein, carbs and fat is important for building and maintaining muscle, having good energy for workouts (and life) and hormone regulation, among other things. Macro timing is important because we want to condition our bodies to use carbohydrates during workouts and fats for low-intensity activities and rest. Better micronutrition results in smaller fat cells and better body composition. Exercise, especially anaerobic exercise like lifting weights, is critical for building and maintaining muscle and increasing RMR.

Action Plan

1. Figure out your TDEE/Wave Number and macros by using the ETP Calculator or joining the Science Lab.
2. Eat at or near your TDEE/Wave Numbers to increase RMR and work capacity. Eat fewer carbs and calories on recovery days.
3. Prioritize protein. Eat 0.7-1.0 grams of protein per pound of body weight every day.
4. Focus on micronutrition by incorporating a variety of different fruits and vegetables at every meal.

3

Expansion

In this section, we'll talk about the concept of expansion. In a world where most nutrition advice is some version of "less, less, less," the idea of expansion is certainly different and extremely useful.

We introduced the idea of metabolic flexibility in the last chapter, and we'll talk more about that coming up. We'll also touch on how to increase NEAT, RMR, caloric intake, and work capacity, and why that will be useful to you.

Do More, Eat More, Be More

One of the most important concepts at Eat To Perform, and one of the things that makes us different, is that we're talking about expansion most of the time. With nutrition advice, you'll often hear people talk about restriction – how can I do less, and how many fewer calories do I need? Over time, you end up painting yourself into a corner with that method. Here, we're talking about expansion and upward ascension as opposed to restriction and downward spiral.

In the "do more, eat more, be more" model, when you do have periods of deficit they become much easier. For example, after expanding up to 3000 calories a day, a short period of deficit "dieting" is more manageable than dieting down from 1200 calories. Starting from 1200 calories doesn't allow for much wiggle room.

What are you going to do? Cut to 800 calories? Nobody wants to live their life there.

So what do we want to do in terms of expansion? We'll look at multiple areas: NEAT, RMR, calories, and work capacity. It's a multi-faceted approach to doing more, eating more, and being more.

PAUL'S NOTES

We really hate the word "dieting" because it usually means arbitrary restrictions and generally miserable conditions. But we'll use it here because most people understand what it means.

Get Your NEAT On

NEAT, as we mentioned earlier, is non-exercise activity thermogenesis, and it's a much more significant contributor to TDEE than most people realize. It's basically any activity you engage in that isn't intentional exercise. Low intensity movement matters, and you should be working to increase it. What's great about NEAT is that it doesn't require much in the way of additional calories and there is virtually no recovery time.

We're big fans of monitoring NEAT, and with all the new devices on the market (e.g., Fitbit, Basis, Garmin Vivo, smart phone apps, and various other types of pedometers), it's really easy to track. The clip-on ones tend to get lost or forgotten, but the watch-style trackers are very easy to use. We also recommend the style where you can push a button on the device and see the reading rather than having to sync it to your phone every time you want to see how many steps you've taken that day.

The best way to start is to track steps for a week or so, set a baseline, and try to increase that number by 5% or so each week. 3000-5000 steps is a good minimum to shoot for, and it tends to add up really fast once you are more aware of it. Small changes are best here, and there's an upper limit to this. Everything in the fitness industry seems to be based on going from one extreme to the next. While you'll get a pretty good benefit by going from very little NEAT to moving a fair amount, that benefit starts to taper off as you get up into the higher range.

PAUL'S NOTES

One of the biggest complaints I hear about fitness trackers is that since they're affected by sweat and arm location, they're not always great at tracking workouts. People are fixating on the one thing they don't do spectacularly well while ignoring the overwhelming number of things they do well.

There is tremendous value in tracking your NEAT, and that's what the fitness trackers are really great at (especially those that also track heart rate). Many of them also do cool stuff like tracking sleep.

And another thing – if you have one of these trackers and have ever rolled your eyes at the "calories burned" number that seems so absurd, I've got news for you. That's how much you should be eating most of the time. If you aren't, that's a big clue as to why you're not getting the results you want. When you are constantly restricting, your body simply adjusts by down-regulating metabolism and non-exercise activity. This is why we only recommend short periods of focused fat loss.

Increasing RMR

There are two factors at play with RMR (resting metabolic rate): the amount of calories you're burning and the "fuel mix". Most people only talk about the total number of calories, but the proportion of fat and carbohydrates you're burning also matters. The assumption is that the fuel burned at rest is always fat, but that's not always true. We want to work to burn mostly fat at rest while burning mostly carbs during training.

Remember, 50% or more of your TDEE is based on this resting energy expenditure, and we want to work to increase it. Muscle is probably the most controllable portion of that, and doing things like weight training and intervals will help you add more muscle (which increases your metabolic rate). These activities will also prevent the loss of muscle over time. We know that as people age, RMR tends to go down because they become less active. We want to do the opposite, which will help increase your RMR and TDEE.

We are working to increase the amount of fat that's used at rest or during low intensity exercise. We *also* want the ability to fuel higher intensity exercise with carbohydrates. A low-carb ketogenic increases fat usage, but generally causes work capacity to drop. We don't want that. Instead, you'll do specific things like moving most of your carbohydrates around the time when you're doing your more intense work. That will push your body to use more carbohydrates for training.

The difficulty is that there's not a great way to measure what fuel source you're using without using expensive equipment in a lab. However, a very rough way to measure this is to look at how long you can go between meals. If you're someone who needs to eat every 2-3 hours or you get hangry and just don't feel good, your ability to use fat as a resting-state fuel is probably impaired.

That doesn't mean you need to spend long periods of time fasting, but you do want the ability to do that, and we'll talk more about that coming up.

Increasing your step count over time (NEAT) is going to push your body to use more fat at rest. You're increasing the amount of calories burned, and you're also increasing the amount of fat being used.

PAUL'S NOTES

Eating adequate calories and doing some kind of weight training is going to increase your muscle mass and therefore your RMR. In the end, increased RMR is going to give you a much bigger bang for your buck than exercise alone. It's the single biggest factor in determining how many calories you burn. It's possible to just eat less and do more to increase NEAT, but if you have body composition goals, you will hit a wall using this strategy alone.

I'll use myself as an example. In both of the pictures below, I weigh 162 pounds. What's the difference? In the picture on the right, taken about 6 months later, I have 15 more pounds of muscle and 10% less body fat. Muscle is the secret.

Caloric Expansion

We know that as you eat more, your metabolic rate does go up. We often see a person's NEAT become depressed under very low calories. NEAT does vary quite a bit from one person to the next, but in general, when you start increasing calories, NEAT goes up.

You want to get TDEE as high as you can, and you want to increase the use of fat as a fuel at rest. That doesn't mean you'll magically lose a ton of fat overnight – you could still out-eat the increase in fat usage. But if you're set up toward expansion, things get easier.

The key here is that we don't want to lose the ability to use carbs during high intensity exercise. We know that if we put people on high fat/low carb diets for several weeks or months, they lose the ability to use carbohydrates during high intensity exercise. This will compromise performance, and it's a bad idea. You're also compromising how much muscle you can gain and therefore how much you can drive up your metabolic rate.

Here's the cool part – we can use a high amount of fat at rest and a high amount of carbs during exercise via metabolic flexibility. You get the best of both worlds.

PAUL'S NOTES

Let me just stop you right here and say that eating more doesn't need to mean weight gain. Also, adding in carbs doesn't result in the chronic inflammation you're afraid of. The body needs a bit of inflammation for healing and recovery. Equating this normal, healthy response with disease-causing chronic inflammation is misguided and misses the point of what it takes to thrive as a human being.

Work Capacity

Your work capacity tends to go up when calories are increased as well. Having the ability to do more work is a very good thing. You feel better, so you move more. All of these things are part of expansion, and they are all positive changes.

When you're doing high intensity exercise, you still have a slight increase in metabolic rate over time. That repayment of energy is mostly fat. Once again, we're increasing the amount of fat we're using. We can measure these increases in work capacity by tracking training volume, density and intensity. Volume is the amount of work that's being done. Density is volume divided by time. And intensity is the amount of weight being moved. Focus on increasing one of these at a time. For example, a very simple volume progression is to work from 3 sets of 10 reps to 4 sets of 10 reps. The following week, go up to 5 sets of 10 reps. The week after that, add in some density increases, by taking that 5 x 10 workout and doing it in 5-10% less time. Then increase the intensity by adding 5 pounds to the weight you're moving.

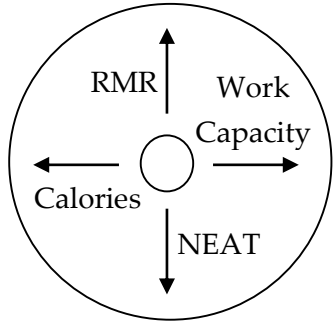
Work capacity, in general, is underrated, and needs to be increasing over time. The catch is that your work shouldn't be all density-based (getting faster over time). You'll want to increase volume for a period of time with lots of rest between, and then alternate a few periods with shorter rest. Make sure you're lifting heavier loads over time. This is a long-term progression, and will enhance your ability to do work.

PAUL'S NOTES

Work capacity needs to increase over time. You need to be getting stronger, and you need to be eating more to support that. However, that doesn't always mean adding more and more training to create huge deficits or eating a ton of food to bridge the gap between energy output and energy input. As long as you are building work capacity over time, at a certain point it makes sense to limit your activity level to keep it closer to your TDEE. It's a viable option we don't want to overlook, and has a lot to do with what you feel comfortable with in terms of training volume and how much food you're eating.

Symmetrical Expansion

Sometimes we'll need to expand in a specific direction so that the expansion is more equal. Basically, we want expansion to look like this:



We don't want an amoeba shape where one area of potential expansion is lagging behind. For instance, if your step count is only 800/day, we'll want to focus on expanding that area so that it's a symmetrical expansion and all areas are improving over time.

Adaptation Cannot Be Stopped

While you can do all sorts of things to slow down your rate of adaptation, you can't stop it. You're always moving – and it will either be in a negative or positive direction. From the standpoint of muscle or metabolic rate, it actually takes work to stay neutral. If you stopped lifting, eventually your muscle and metabolic rate are going to head in the negative direction because you've removed that stimulus.

Physics always wins. If you're stuck and can't seem to lose weight, there's something going on – there's a limiting factor that we need to figure out. Nobody (*nobody)* gets to violate the laws of physics. Unfortunately, outside of the lab we're an experiment in an open system. You're not closed into a metabolic chamber with every gram of food accounted for. And what we find is that calories in affect calories out and vice versa. In many people, eating more calories increases RMR and NEAT, thus affecting calorie burn. And as RMR and NEAT go up, you tend to be hungrier and end up eating more calories. Your metabolic rate doesn't stay the same all the time. The bottom line is that it's much more complex to track all of the things that are going on in an open system.

So, what *can* you control? The key to making positive changes is to focus on the things you *can* control. The quickest way to feel terrible is to focus on all the stuff you can't do. We can focus on TDEE, calories out, and what foods you decide to eat. You have more control than you think.

Slow and Steady Changes

In general, we don't want to try and make massive changes overnight. If you were at 3000 calories, we don't want to drop you to 1000 calories overnight for many reasons, but primarily because your body will adapt faster to 1000 calories than it would to, say, dropping to 2800 calories. And when we say "adapt", we mean your body will start down-regulating metabolism and making other changes to adjust for a major decrease in caloric intake. You don't need a 2000 calorie deficit to see positive changes. This is what we call the minimal effective dose or MED. You might want to cut to 2800 calories and focus on things you can control, like NEAT expenditure, meeting protein requirements, and getting in a good amount of micronutrients (vitamins and minerals in food). Monitor your results at 2800, then go down to 2600 and see how that goes.

Often, people say, "Starting Monday, I'm going to lose weight. So I'll cut to 1200 calories per day so I'll lose weight faster." You will lose weight faster, but physics always wins. Adaptation cannot be stopped. You will adapt to being at those lower calories faster and will stall out quickly. A better method is to use the minimal effective dose and cut as little as you need, which will vary from one person to the next. Focus on that for a period of time, and then make small adjustments as needed.

Expansion is the Key

We said it before, and we'll say it again: expansion is the key. Most of your work should be related to expansion. It's the opposite of how most people try to approach fat loss – they are generally trying to restrict as much as they possibly can. There is a time and a place for restriction when it's done correctly, but the goal

is to focus most of your effort on expansion done in a very specific way. You'll want to start with a baseline and move toward "better".

And finally, have fun. This should be an enjoyable journey. There will be times when it will be difficult, but overall it should be fun. Get results, but don't be utterly miserable while you're getting them.

Summary

It's the periods of expansion where the magic happens, and they make the short periods of focused fat loss much easier and more successful. The four big areas of expansion we're focusing on are NEAT, RMR, caloric intake, and work capacity.

NEAT generally makes up more of your daily calorie burn than exercise, and is easy to track. With RMR, we want to work to increase the total daily calorie burn and the amount of fat burned at rest and during low intensity exercise.

For most people, when we increase calories, we increase RMR and NEAT. This will also improve your performance and your work capacity.

Adaptation cannot be stopped, and you'll always be moving in either a positive or negative direction. Focus on the things you can control with slow and steady adjustments.

Action Plan

1. Use a fitness tracker or smart phone app to track your steps. Work on improving your step count by about 5% each week.
2. Lift heavy stuff to increase your RMR and be more awesome.
3. Eat most of your carbs before and after workouts, at dinner, and at bedtime to improve your body's use of carbs as a fuel source for high-intensity activity while using more fat at rest.
4. Focus on small, steady changes (minimal effective dose) over time and make adjustments as needed.

4

Reverse Dieting

For metabolism-driven fat loss, higher metabolism is obviously going to be better. Metabolism is influenced by many different things, and it does change over time.

We talked previously about metabolic flexibility, which is the ability to switch from the use of fats to the use of carbs. That will be important in reverse dieting as well. We'll also talk about "metabolic damage," what that term really means, and if metabolism is really "broken" or just adapted.

What is Reverse Dieting?

Remember, most of the calories you burn during the day are related to your resting metabolic rate (RMR). If RMR is trending down because you're cutting calories too low, it's going to be much harder to achieve your fat loss goals.

One of the best solutions for increasing metabolic rate is "reverse dieting". If you've gone through a period of cutting calories or you've been restricted for a while, you'll want to do some focused expansion. We want to slowly increase your metabolism back up over time by adding carbs and increasing work capacity. This is what we're referring to when we use the phrase "reverse dieting."

But My Metabolism is Stuck!

Many of our clients over the years have believed that their metabolism is static and will never move. They think it's completely, utterly broken and doesn't respond to anything. That's generally not true at all with the exception of some very rare cases. Your metabolism is not stuck, and it can be changed when given the right stimulus. It's not static. It's influenced by a bunch of different things, and it does go up and down over time.

PAUL'S NOTES

When you read something like "in very rare cases," don't automatically assume that's you. Just because you've been stuck for a while doesn't mean you're an outlier and the things that work for most people won't work for you. Get out of the victim mentality – put yourself in the "this works for most people" category and adjust from there.

Increased Calories = Increased Metabolism

When you increase your calories, you increase your metabolism. We also see increases in NEAT for most people. To steal a phrase from Dr. Layne Norton, we want to slowly increase our "metabolic capacity" over time. The person whose weight is stable at 3500 calories has a pretty good metabolic capacity. If he wants to do a focused period of cutting, he can cut 500-1000 calories and still eat enough to support quality training, hormone function, muscle preservation and metabolic capacity. On the other hand, the person who is weight-stable at 1200 calories has a pretty low metabolic capacity and can't really go down from there. The solution for this person is to do a period of expansion or reverse dieting and slowly work up to a higher metabolic capacity.

Compare a sports car with a smart car. The sports car's performance is very high, and it burns a much larger amount of fuel. In contrast, the smart car is much slower and burns much less fuel. That's great for driving cars and saving money, but it's not what you want for performance-focused fat loss.

PAUL'S NOTES

If you just read the last section and you're freaking out about 3500 calories, this note is for you. First of all, that's an extreme example. But chances are pretty good that you're closer to 1200 than you are to 3500. You've probably been stuck in the "less, less, less" model of trying to restrict calories. How's that working for you? If you're reading this book, I'd wager that you're not getting the results you're after. If you want to see success in reaching your goals, the first step is to admit that what you've been doing **is not working**. If restricting down from 1200 calories worked, you'd be a hell of a lot closer to the results you want. To get some traction, you're going to have to build yourself back up to be able to cut later. Increase capacity. Eat more, do more, be more. Be a Lamborghini, not a Yugo.

Carbohydrate-Fueled Performance

How do we increase performance? Primarily by increasing carbohydrate intake. That doesn't mean fats and protein will never change, it just means that most of the increase we're going to work on will be with respect to carbohydrates.

Carbohydrates are the primary drivers of performance. We want to keep the training stimulus as high as possible, and that requires fuel. This is the "do more" and "be more" part. Most people report that they feel much better using this strategy – they're moving more and burning more calories. Eating more calories tends to make you want to move more, which burns more calories. Remember, calories in and calories out are not independent of each other, they're highly coupled together. The exact amount of carbohydrates will vary from one person to the next depending on their tolerance. It's something that will need to be introduced slowly and adjusted over time.

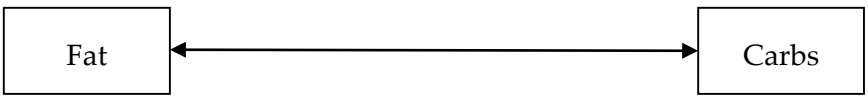
Why not just add a crap-ton of carbohydrates all at once? Many people we see are coming from some form of a low-carb background, and often low-calorie as well. This causes insulin function to change because the brain is greedy. It controls everything, and it wants glucose. It's going to take its glucose, and it's going to change insulin function to ensure that it always gets its glucose. It's called non-pathological insulin resistance, and basically causes your body to become less sensitive at the muscle level.

Think of it this way: Insulin is the fuel selector switch, and when insulin goes up, it sends a signal to your body to either use carbohydrates (in the muscle) or store carbohydrates (as fat). Either way, the point is to get them out of the bloodstream. If carbohydrates are low, we make the muscle less sensitive to insulin and it's harder to get carbohydrates into the muscle. This is what the brain wants – it gets more glucose. It's similar to, but not quite the same as what happens with Type II diabetics and other disease processes.

In very low carbohydrate diets, we become fat adapted but carb impaired. The body loses the ability to effectively oxidize or use carbohydrates. If we just dump in a ton of carbs at once, they won't be used effectively for a period of time.

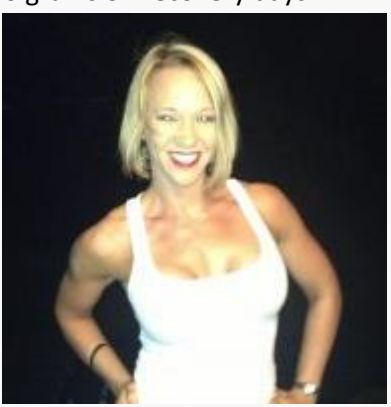
We need these changes to reverse themselves by *slowly* adding sufficient carbohydrates back into the diet. Timing becomes more important here too.

Consider the figure below as our spectrum with the use of fat at one end and the use of carbs at the other. If we remove carbohydrates and get really good at using fats but never visit the "Carbs" end, the body starts to lose the capacity to use carbs. It will get much better at using fats, but over time that will decrease the ability to use carbs. With metabolic flexibility, we want the ability to go back and forth. We want to be able to use *both* fats and carbs really well depending on the intensity of our physical activity.



PAUL'S NOTES

When our head coach April Blackford began with Eat To Perform, she focused solely on performance in the gym, and increased carbs substantially. When she first started out, she was eating 150 grams of carbs on her heaviest workout days. She currently eats 350 grams of carbs on training days and 250 grams on recovery days.



Reintroducing Carbs

Folks coming from a very low carbohydrate background are generally poor at using carbs. The good news is that it's not a permanent problem and your ability to use carbs to fuel performance can be developed over time.

The best place to start is to add carbs during a weight training session. For a 50-minute session, we'd start to add them at around 30 minutes into the session. Usually, liquid form is tolerated best during training (see "Paul's Notes", below, for recommendations for high-intensity training). There are several reasons for this. First, the muscle activation increases the body's ability to use carbohydrates for muscle contraction. We also have increases in counter-regulatory hormones such as epinephrine, norepinephrine, and possibly cortisol, all of which will help the body use carbohydrates more effectively and be much less sensitive to them.

One of the things that can happen with very low carb diets is that the body adjusts to using a very limited amount of carbohydrates. Adding a ton of carbohydrates can actually cause hypoglycemic symptoms in some cases. However, as you start getting better at using carbohydrates (slowly, over time), your body starts to handle greater fluctuations in carbohydrate intake.

A general rule of thumb is to start with around 20-25 grams of carbohydrates about halfway through a lifting session, and go up in 20-25 gram doses over a period of several weeks. During this time, avoid heavy overhead movements and make sure you're training in very safe conditions until you know how your body will respond to the additional carbs.

Over a few weeks, you'll work up to 75 grams during a lifting session. Once you get used to this level of carbohydrate intake, we'll move some of those carbs to pre-training. Again, start with around 25 grams pre-training, see how you handle it, and scale up.

PAUL'S NOTES

Starting out with adding carbs during your workout is appropriate for lifting weights, but when you are doing higher intensity work like Crossfit or HIIT, you'll need to change it up a bit. Slugging down 75 grams of carbs right before or during a WOD is almost certainly a recipe for disaster. Instead, begin by adding carbs immediately after your workout. Follow the protocol above until you're comfortable with 75 grams post-workout, then start moving some of those carbs to pre-workout. Eventually you'll want to be up around 50 grams of carbs and 25 grams of protein for each of your pre- and post-workout meals.

That brings up another point. There is a lot of debate on the value of nutrient timing around workouts – specifically, getting the carb/protein ratio exactly right. We do typically recommend a 2:1 ratio of carbs to protein before and after workouts. But frankly, I don't think it's all that important to nail this down perfectly. It's a great STRATEGY for meeting your macronutrient needs, but that's where the whole debate loses me. There are endless studies based on this one topic, which probably isn't that important. But everyone agrees that having a PLAN for getting the macros in makes sense. So don't get hung up on getting meal timing perfect – think of it as a strategy to meet your needs.

How Much Is Too Much?

Obviously, as we add in carbohydrates, calories will go up over time. How much should they go up? This is where we get into the trade-off between body composition and training performance. In a perfect world, we'd want to see performance going up while body composition stays neutral.

If we lived in that perfect world, we'd know exactly how many grams of carbohydrate a person should eat to achieve this. Pretty much everyone sees a bump in performance when carbs are added. Body composition, however, is much more variable from person to person. Some people will see body fat go up a bit because they're eating more. In rare cases, we'll see people get leaner as they add carbs – usually those people are coming from a seriously carb-depleted background, and everything up-regulates as they add carbs. For most people, though, body fat will stay roughly the same or go up slightly.

The key here is to monitor performance and body composition. If body fat begins to go up significantly, you won't be able to increase carbohydrates as much. In general, you want to see a trend where carbohydrates are going up, macronutrients are going up, and performance is going up. Body composition may temporarily get a little worse. If you're not responding well, that means you need to make slower changes. The process may take longer. This is usually the case for people coming from a very low carbohydrate background. Folks who are relatively healthy and haven't done much extreme dieting will generally see faster results.

The good news is that, again, your metabolism will change over time. Your metabolism is not broken. It does respond, but the rate of response is hard to predict and varies from one person to the next.

PAUL'S NOTES

Now, before you go into a tailspin about the possibility of a slight increase in body fat when you begin to eat more carbs, consider an example of what this looks like in practice. Let's start with someone eating 1200 calories and say we gradually worked them up to 3000 calories. During this time, let's assume they gained four pounds. First, this person's training performance and work capacity at 3000 calories is going to be significantly better than it was at 1200 calories. Secondly, with 3000 calories as a baseline, it's going to be much easier to cut from there to lose those four pounds (and then some). It takes time, but in the long run it's a much more sustainable and enjoyable approach to fat loss than the "less, less, less" model.

Earn the Right to Cut

In essence, this method is the exact opposite of typical dieting recommendations. Rather than "earning" your food by exercising more, or punishing yourself via starvation for not working hard enough, you've got to build your body up to the point where it's functioning well enough to let go of some body fat. You will need to focus on a period of expansion and reverse dieting to increase calories while keeping an eye on body composition.

The changes you'll make are going to be relatively small, and fat loss will not be linear. This is one of the biggest mistakes we see people making – they make a change, wait a day or two, and say, "Nothing's happening!" Physiology does not change overnight, and you will need to wait longer than you think you should before making dramatic changes.

Instead of buying into the mindset that you need to earn the right to eat more because you're killing yourself in the gym, you'll

need to earn the right to cut by first expanding your caloric intake, work capacity, and metabolic rate.

Summary

We want to focus on increasing calories to the highest amount we can while keeping the change to body composition as small as possible. There is no exact formula for how many calories to add, as it varies greatly from person to person. Fat loss, unfortunately, is not a linear or black and white process. Monitor performance and body composition, hold the pattern, and make small changes as needed.

Start by increasing carbohydrates halfway through training, monitor training performance and body composition, and adjust from there. The goal here is to see longer, lower plateaus that are more sustainable. Don't be afraid of plateaus! As you're working to improve body composition, you're going to hit little plateaus. But the long-term goal is to reach your desired body composition and be at a plateau. A plateau is something that's sustainable.

Action Plan

- Take baseline body composition measurements. If you aren't able to get a reliable body fat test done, just use your waist measurement to track body composition.
- Add 20-25 grams of carbohydrates about halfway through your training sessions. See how you handle that, then add in 20-25 grams per week until you are at 75 grams intra-workout. At that point, move some of the carbs to pre- and post-workout.
- Monitor body composition and performance. Wait longer than you think you need to before making changes. Changes won't happen overnight, and your body needs time to adjust.

Performance-Focused Fat Loss (PFFL)

5

Alright. So you've done the work to expand your NEAT, caloric intake, RMR/metabolic capacity and work capacity. This generally takes a *minimum* of three months, and for Science Lab members who want to cut, we require food logs for at least that long to prove you've been eating at or near your Wave Numbers most of the time. So, what now?

In this chapter, we'll describe the process for a typical scenario – someone looking to lose 8 pounds over 8 weeks. In general, unless someone is significantly overweight, about one pound a week is a good target to shoot for. That doesn't mean you're going to see linear fat loss at exactly one pound per week. If you look at weight changes, you generally see it go down, plateau for a bit, go down, maybe go up a bit, back down, plateau, and so on. If you average it all out at the end, it would be about a pound a week.

Why is that the magic number? Because there's not a super high cost associated with that rate of weight loss. If you push much beyond that, the cost tends to get very high, very quickly, especially for those who are leaner. Larger folks tend to lose more fat, and eating at a deficit doesn't impact their muscle or resting metabolic rate much.

So for 8 weeks at a time, the main focus will be fat loss, done in a very specific way. We call this the Performance-Focused Fat Loss phase, or PFFL.

Don't Try to Ride Two Horses with One Butt

Unless you're brand new to weight training, or training in general, you cannot expect to add significant muscle and lose significant fat at the same time. You're much better off taking a period of time to focus on expansion and gaining muscle first, then focusing on fat loss for a specified period of time.

We do, however, want to maintain as much muscle as possible during this focused period of fat loss. If you're consuming fewer calories, which you will have to do for a period of time to see fat loss, your metabolic rate is most likely going to go down a bit. Maintaining muscle will keep your metabolic rate from dropping too fast. There is a lot of variation in how much the metabolic rate changes from person to person, but there are still some basic principles that will work for just about everyone.

PAUL'S NOTES

One of the most important things you can do going into a PFFL phase is to increase your calories for about a week before you start. You'll want to feel a bit "fluffy" going in to this phase, with full muscles. Pushing the top end numbers will ultimately set you up better to lose fat. Mentally, it's an important step to realize that your weight is supposed to go up and down. If it never goes up, it's difficult to get it to go down.

Creating a Deficit

To lose fat, you've got to be at a caloric deficit at some point. A conservative way to approach this is to eat at full TDEE on workout days and slightly less on recovery days. Factoring in the fact that you're not burning as many calories exercising, it usually means eating about 400-600 fewer calories on recovery days. This is the approach we take with the vast majority of our Science Lab

members. For folks who want to maintain their weight while improving performance, the deficit on recovery days may only be 200-400 calories or less.

For aggressive fat loss in a short period of time, you'll want to be at a deficit on workout days *and* recovery days. How much of a deficit is highly individual, but you can get an idea of what we typically do in the Case Studies section in Appendix A.

PAUL'S NOTES

Socializing around food is an important part of life, and stressing out about going out to eat or going to a party is not helpful or enjoyable. Remember, this isn't supposed to be 8 weeks of torture and you should be able to live your life relatively normally.

I plan for eating out during a cut by using the "one big meal" strategy. It's something I use maybe 5 or 6 weekends a year, at most. Here's how it works. I delay breakfast as long as earthly possible. For me, some days that's 11 AM; and some days (if my brain is occupied), it's 2 PM. The key here is that you'll probably be hungry but you don't want to let it get too uncomfortable. At that point, I'll have some oatmeal and a protein bar. That gets me through until dinner out, usually around 5:30, and that's my one big meal. You *need* a big(ish) meal, but you can't go completely ape nuts. You don't eat *all the ice cream*, you have a scoop after your meal.

If your thing is alcohol, your big meal should be relatively lean and not super low-carb but low-ish. Sirloin steak with veggies and small potato would be a good option. I can't tell you how to fit in a 12-pack of beer because I don't know a strategy for that one.

It's a plan that doesn't steal your gains and makes you relatively weight-stable even if you overdo it a bit. Keep in mind, this is something you can do occasionally to stay weight stable while enjoying yourself, not your "every-weekend" plan.

Excessive Restriction is NOT the Answer

People trying to lose fat tend to dramatically reduce the amount of carbohydrates they're taking in. But as performance starts going down, the body becomes worse at using carbohydrates for high intensity exercise.

We want to have enough carbohydrates to fuel high intensity performance, but at rest, we want to use more fat as a fuel source. When you remove too many carbohydrates, you're not able to fuel your training at a high level, and you end up reducing the amount of calories you're burning. This also removes the stimulus you need to hold on to muscle and maintain your metabolic rate. You don't want to be doing that.

PAUL'S NOTES

The goal here is to get in and get out of this 8 week PFFL cycle as painlessly as possible. We don't want performance, strength, lean mass and metabolism to go down the toilet just to drop a few pounds. One of the best ways to keep metabolism as high as possible is to have a "Wave Plus" day once every 7-10 days. I don't like to call this a "cheat day" because it implies that this plan is too restrictive to fit in the foods you love on a regular basis. It also tends to mean a free-for-all where you go completely nuts and derail your progress.

I'm talking here about taking a day once a week or so and eating roughly 500 calories over TDEE/Wave Numbers (not 500 over your highest PFFL number). We call this the Wave Plus day. Those calories will come primarily from carbs, with some fat thrown in to make meals fairly well-rounded. You'll want to plan for it and keep it controlled. It's basically just enough extra food, just often enough, to tell your body you're not an idiot and you're not trying to starve yourself. Personally, Friday nights are date nights and I typically have pizza, so I plan my Wave Plus days on Fridays.

Why Performance Matters

You want to keep training performance as high as possible. This is probably the biggest thing we see people go bonkers with. They want to see some fat loss, so they seem to want to generate the most fatigue possible, and training performance tends to go out the window.

Remember, during this period of fat loss, calories are going to be lower. And with that, it's going to be more difficult for you to recover. For some folks, the goal seems to be to crawl out of the gym and accumulate as much fatigue as they can. The problem is your body doesn't care much about the fatigue (in terms of trying to maintain muscle). It cares about performance, and about the amount of work, volume and stimulation that the muscle sees.

Training stimulus has to be the highest priority. It can be measured and tracked, and we want training to be performance-based, not fatigue-based.

During this PFFL cycle, rest periods during volume-based training may have to increase to keep performance high. You may actually feel much less fatigued, but don't assume that means you're not working hard enough. Keeping performance high is the key, and achieving that might require increased recovery time. You want to accumulate as much **high quality** work as possible, for as long as possible.

Appropriate training stimulus is the biggest key to holding on to as much muscle tissue as we can. That will keep your metabolic rate as high as it can be, and that's why performance is important.

PAUL'S NOTES

We talk at length about "trusting the process". That can be difficult at times, even for me. There are days when I step on the scale and wonder, "Do I really need to eat so much today?"

One of my big concerns is that people just "nibble" at expansion and they don't see where the real gold is hidden. They think the answer is to build huge deficits on recovery days. That's not the primary function of the recovery day. Recovery days allow you to adapt to the training stimulus you are providing on workout days. They allow you to become more insulin sensitive (that's a good thing) and provide recovery time. They should be called "chillax" days! Workout days should be called work capacity or build days – you're not just "getting it in", you're pushing your physical limitations beyond what you can do now. You do that by working at 100%.

I went from 176 to 167 pounds during a recent PFFL cycle. When I get on the scale and see 170, I'll be honest – I want to be under that. That's ridiculous. That number means nothing. I feel like a million bucks right now. I am fully recovered and I'm crushing my workouts. I eat things I enjoy. The point isn't to prove I can eat a sleeve of Oreos and maintain my weight. For me, this is about health and well-being, and "chillax" days are a part of that, not because of the deficit they create but because of the atmosphere of recovery that allows for better adaptation over time. Don't think of them as a burden, embrace what is really happening.

Do you want true fat loss? Aim for a higher caloric intake so you have somewhere to cut from when it's time for a period of focused fat loss. It can be mentally tough to see the scale go up and feel bloated on occasion, but that's often a necessary part of seeing lasting change. People are afraid to push that top end of calories and work capacity, but that's how true fat loss is done! You build amazing work capacity, and you adapt to that stimulus over time (we're talking months and years, not days and weeks). Quit nibbling at work capacity and dive right in. That's the real secret.

Measuring Performance

We talked about this in Chapter 3 with expanding work capacity, but we'll touch on it again as it pertains to fat loss. You've got to monitor your performance, and it's got to be measurable. If you're doing endurance work, keep track of your time. For weight lifting, measure volume (weight x sets x reps). You can also measure effort by RPE (rating of perceived exertion), density (volume ÷ time), and load or intensity (as a percentage of one rep max). We want to see all of those things going up – not all at the same time, but we want to see the trend going up or at least staying even. We definitely don't want to see these numbers tank overnight.

Again, think of the minimal effective dose (MED). Don't go into a super high volume program overnight. If you bench pressing sets of 3 x 10, don't jump up to some crazy sets of 10 x 10. How much should you increase? That's variable from person to person, but a good rule of thumb is to increase by 5-10% each week.

PAUL'S NOTES

As you can see, we put a very heavy emphasis on performance during a PFFL phase. I hope we've made it clear in the first half of this book – the real secret to lasting, sustainable fat loss is expansion. We want performance getting better and better all the time. During the PFFL phase, we want to preserve those hard-earned increases in muscle mass, strength, and work capacity.

Having said that, there is a time you absolutely don't want to do a PFFL phase, and that's when you want to significantly improve your performance. For competitors, that means you don't run a PFFL phase that ends just before your next big event. For those that don't compete, this is not the time to be trying to go for major PRs or significantly ramping up your training. Going into a competition stronger with a higher work capacity will always be a better strategy than being a few pounds leaner.

Increasing NEAT

You'll want to work on increasing non-exercise activity thermogenesis (NEAT). Lower intensity cardio-type exercise gets a pretty bad rap these days, and we'll agree that it gets abused by a lot of physique coaches – their solution for everything seems to be to add more low intensity work. We're definitely not fans of that. We like to see people doing as much weight training as they can, with a few interval sessions here and there. Those two activities are going to give you the biggest bang for your buck. But at some point, you're just not going to be able to add more of that and still include enough recovery to see your performance go up over time.

This is where NEAT comes in, once again. It's relatively easy to add. Just get up, walk out your door, go up and down stairs, or park further away. All of these things add up over time and these kinds of activities are not nearly as stressful as lifting weights or HIIT training, though it does take more time. Stress is not always a bad thing, but during this phase you're going to have a limited ability to recover so you want to limit your stress whenever possible.

It's unrealistic to expect that you'll be able to double your weight training and HIIT in order to get leaner. Most people are just going to burn out really fast doing that. Adding NEAT is less stressful, easy to track, and uncomplicated. Because NEAT tends to drop as people lose more weight, it's beneficial to focus on keeping it neutral or increasing it. Don't go bonkers here and try and go from 3,000 steps today to 20,000 steps tomorrow. You just want to accumulate more during the day.

PAUL'S NOTES

NEAT is a fantastic way to minimize the need to go super-low on carbs or calories. For our members who sign up for a PFFL cycle, we'll set three calorie levels: Workout days, Low-active days, and "Hail Mary" days (or high, medium and low). Workout days are when you're training. Low-Active days are when you get a good amount of NEAT or low-intensity exercise in, or when you need to rest completely to recover well. Hail Mary days should be a last resort, and are total rest. You should only use the low number if you are several weeks in, fat loss has stalled, and you have been proactive about Wave Plus days. Most people who go to that low number too early or too often in a PFFL cycle don't lose much fat.

As a random example, calories might be set to 1900, 1700 and 1500 calories for workout, low-active, and Hail Mary days (respectively). If you can burn a bunch of calories just walking around and doing activities that don't require a lot of fuel or recovery time, that means you can eat at the 1700 low-active level instead of the 1500 Hail Mary-day level and still get results. It's an extremely effective tool, and I have used it very successfully for my own PFFL cycles.

Sleep

Sleep, as you probably know, helps with recovery. It doesn't cost you anything except time. We'd argue that you're more productive during the day when you get more sleep, and that makes up for the extra time you spent sleeping. What's fascinating about sleep is that over time, sleep-deprived individuals lose awareness of how sleep-deprived they are. Their lab-measured performance tanks, but they self-report feeling pretty good.

In a 2011 study by Hursel, two groups were locked in a metabolic chamber where they could measure how much fat and carbohydrate the subjects were using. One group was allowed to

sleep normally while the other group was awakened every hour or so. The group with fractured sleep shifted to using dramatically less fat for fuel. So sleep not only helps with recovery, mental function and hormone regulation, but good quality sleep also increases your body's ability to use fat. Doc Parsley, who works with Navy Seals, said the biggest thing that helps in terms of testosterone output, especially after high stress missions, is sleep.

People who sleep better get a bit more NEAT. You can test this on yourself. On the days when you get more sleep, you'll tend to get more movement in during the day. If you can take a 2-3 week period and just get as much sleep as you possibly can, in virtually every case people get leaner without doing much else. There are also behavioral changes that occur with increasing sleep, such as making better food decisions.

Focus on the behaviors that drive better sleep. I (Mike) used a Zeo device for a while to run experiments on myself, and I found that my sleep only got better when I worked on the behaviors most of us already know about.

The most obvious behavior improvement we all know about is to sleep in a dark, cool room. Room darkening shades are worth the investment. Just try to go to bed earlier, even if that's only 20 minutes a night. You can't control how long it takes to fall asleep, but you can control when you go to bed.

This allows a little bit more NEAT. The main regulating factor here is blue light. Getting up and going for a 20-30 minute walk in the morning will increase your blue light exposure. This will help you fall asleep earlier at night and tends to improve your sleep-wake cycles.

At night, we want to do the reverse and decrease blue light. There are blue-light blocking sunglasses, programs like f.lux for your computer, or reverse light settings on your phone or tablet

that change the background to black. An even better idea is to just turn it off a while before bed and don't bring it into the bedroom.

Finally, try to relax. Breathing drills and other things that calm your body down tend to help with sleep.

Stress Management

We've got two systems controlling the autonomic nervous system: parasympathetic and sympathetic. Most of the time, your body is under parasympathetic stimulation, and it acts as a brake to slow heart rate down. The sympathetic arm is the opposite – it's the flight, fight or freeze response. Most of the time, we want to have more parasympathetic activity, which means a lower heart rate and less stress.

You can use heart rate watches to measure resting heart rate over time, or you can use heart rate variability (HRV) to tell you the ratio between the parasympathetic and sympathetic nervous system. You can then use this data to determine if stress is going up or down over time.

Longer and slower breathing will help increase parasympathetic tone. Things like yoga, meditation, and prayer all help increase parasympathetic tone and increase the ability of your nervous system to recover. I (Mike) did Bikram (hot yoga) for almost two years as an experiment, and I think much of its benefit came from the breathing exercises.

Cardiovascular training can improve sympathetic tone. Once again, we see huge benefits from walking and NEAT. Walk and pay attention to your breathing. This is often something you need to schedule in, as it often gets pushed to the side when life gets busy. Having down time and light recreational activities is a very good idea for stress management.

Summary

Once again, expansion is the key. Expansion sets us up for a more focused period of fat loss. And even during a PFFL cycle, we're still focused on trying to expand NEAT and get more high-quality sleep.

Focus on the training stimulus. We want to keep as much muscle as possible to keep metabolic rate as high as possible. You'll probably need to spend more time recovering. You're asking your body to do the same amount of work (although you'll probably end up doing a little less) with fewer resources (i.e., less food). Find ways to measure recovery, and get competitive with how well you can recover.

We'll break down specific macros and calories for PFFL cycles in the Case Studies examples in Appendix A, but this section gives a framework for what to look at during this phase. Once again, have fun! This process can be difficult at times, but shouldn't be completely and utterly horrible the entire time.

Action Plan

- Keep training stimulus and performance as high as possible to preserve muscle and metabolic rate. Plan on increasing RPE, density, load or volume by 5-10% each week.
- Schedule adequate recovery time.
- Reduce calories to lose about a pound a week for 8 weeks (see Case Studies in Appendix A for specific examples).
- Work to increase NEAT.
- Prioritize sleep. Make your bedroom dark and cool, minimize blue light at night, and go to bed earlier.
- Reduce stress with breathing exercises, NEAT (walking), and light recreational activities.

6

Putting it All Together

No matter where you're coming from, everyone's got to start from the beginning. This section will guide you through the steps of your Eat To Perform journey. Whether you're a Crossfit games athlete or a total newbie to exercise and proper nutrition, every Science Lab member starts at the beginning, and you don't move on until you've mastered the current step.

Step 1: Define Your Goals

For some, determining your goals is more complicated than it seems. You may think you need to lose fat when you would be better served by increasing lean mass. People with more fat to lose often have a "goal" weight that is way too aggressive or doesn't account for maintaining (or building) lean mass. Or maybe you just want to get stronger, but you're constantly eating at a deficit that doesn't allow you to build muscle or improve performance.

Step 2: Determine TDEE/Wave Numbers

The Harris-Benedict and the Katch-McArdle formula are both predictors of your TDEE/Wave Numbers. Like the ETP calculator, most health apps are using one of these formulas to determine your daily calorie burn. Unfortunately, just eating less than the

number some online calculator spits out for a while isn't a very enlightened approach. Ultimately, it won't get you lean because it misses the bigger picture (yes, even for over-eaters). If you are always expending more than you're taking in, that isn't the formula for a thriving metabolism. A thriving metabolism requires muscle, and constantly eating at a deficit won't get you that.

You may think you're over-eating because your body composition isn't what you want it to be, but that's not always the case. Our coaches estimate starting Wave Numbers based on individual stats, history and goals. Once our members hit those numbers, coaches will tweak the Wave Numbers until we hit the sweet spot. That might take some time as these changes don't happen overnight, but it's a much more targeted and individualized approach than plugging some numbers into a calculator and hoping you get it right.

Make sure you're getting the proper mix of carbohydrate, fat, and protein. Without this step, you're basically doing a version of Weight Watchers. Getting the macros right gives your body fuel to preserve and build muscle, maintain hormonal balance, and provide you the energy you need to crush your workouts.

PAUL'S NOTES

Counting calories isn't always right for everyone, but as a coach, seeing some level of tracking from our athletes is really helpful. And the more specific your needs are, the more important tracking becomes. There are two big benefits to tracking. First, we can get a baseline for where a person is starting. Secondly, tracking intake brings an awareness of what you're actually doing. We'll often ask people who are "stuck" to track for a week or so, and all of a sudden everything comes back in line because they've become more conscious of their behavior.

Step 3: Expand Work Capacity and TDEE

Work capacity is a broad way to define what you can do. If you are constantly denying yourself food, that's not a great formula for improving your work capacity. Whether it's aesthetics or athletics (or both), you should be getting better most of the time. And eating enough food is a big part of that.

If you are over-eating and you adjust to your TDEE, you should lose fat. You would be eating less and would be more purposeful about your food choices. If, on the other hand, you have been under-eating for a while, it takes some time to recover from that. We typically say 12 weeks, but you might need more time. At the end of the day, fat loss is about math. If you have been hammering on your metabolism since your first diet in junior high, you've got to chill out or you'll never see results.

To lose fat, you've got to be in a caloric deficit at some point. That deficit can either come from reducing calories, or from increasing your caloric burn (by adding activity or by increasing your lean mass). And periods of fat loss are most effective (and most sustainable) when you start from a higher caloric intake. For example, if you've been eating at your TDEE/Wave Numbers of 2400 calories for some time and you want to lose some fat, it's a heck of a lot easier to come down from 2400 than to try and cut from 1200. That's why starvation diets aren't effective in the long term. The solution is eating more and doing more with a good plan (which, by the way, also includes more recovery).

PAUL'S NOTES

Is your energy input equal to your energy output? In simple terms, are you under-eating or over-eating? If you're not where you want to be in terms of performance or body composition, your energy input isn't lining up with your energy output. But just having some extra fat to USE doesn't necessarily mean you're over-eating. It might mean you're using the wrong fuels at the wrong time, and that's not a great way to get a "hot like fire" metabolism. I don't care how many Raspberry Ketone pills you choke down daily.

Step 4: Embrace NEAT

It may seem like we're beating a dead horse with all this talk about NEAT, but it's really important for every phase of this plan. It's easy to do, simple to track, and doesn't require much (if any) extra fuel. You don't need to recover from it like you do with other types of exercise. That doesn't even touch on all the cardiovascular and stress-related benefits of low intensity activity.

You don't have to get some expensive, fancy tracker (although some of those are pretty cool and definitely worth the investment). Just add an app to your smart phone and take it with you when you go for a walk. Keep it simple.

Step 5: Spend 8 Weeks on Fat Loss (PFFL)

We know this concept is very attractive to chronic dieters. However, the Wave Method won't work if you haven't completed the previous steps. Not everyone wants or needs to do this part of the Wave Method – we have many Science Lab members who have phenomenal results just following the first four steps. You can get

pretty darn lean by just eating the right amount of food and increasing your work capacity. Once you solve that piece of the puzzle, you may just want to hang out there – that's totally fine.

Not everyone wants to get this aggressive. And by aggressive, we're not talking about something ridiculous like 30 pounds in 30 days, we're talking 8 pounds in 8 weeks. The key here is to preserve your hard-earned muscle and performance while dropping body fat.

It's been proven time and time again that short periods of focused fat loss are vastly superior to eating at a deficit for long periods of time. The problem is nobody wants to do it that way. They have a goal weight in mind and want to pull off the band-aid all at once – just suck it up and get it done. And by the time they are done, their hormones are a wreck, and they've painted themselves into a corner.

Take the time to do it right, and it will be a much more pleasant and sustainable experience.

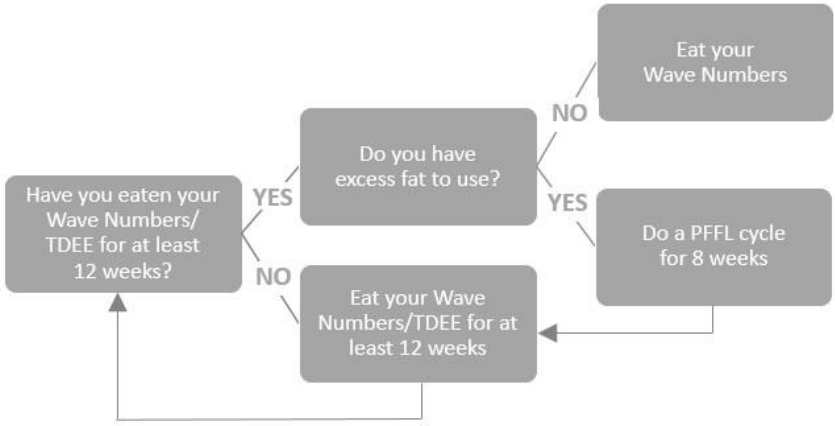
Step 6: Reverse Diet Back Up to Wave Numbers

After 8 weeks at lower calories for performance-focused fat loss, you'll work back up to your full TDEE/Wave Numbers and hang out there for a while (at least 12 weeks for most people). What if you have more fat to lose, say 50-100 pounds? The cycle gets a little shorter.

Here, you'll gradually add in about 200 calories a week until you're back up to your full Wave Numbers. During this time, you should also be increasing work capacity. Weight may bump up a few pounds, but body fat percentage should start to drop as your performance and work capacity ramp back up.

Step 7: Rinse and Repeat

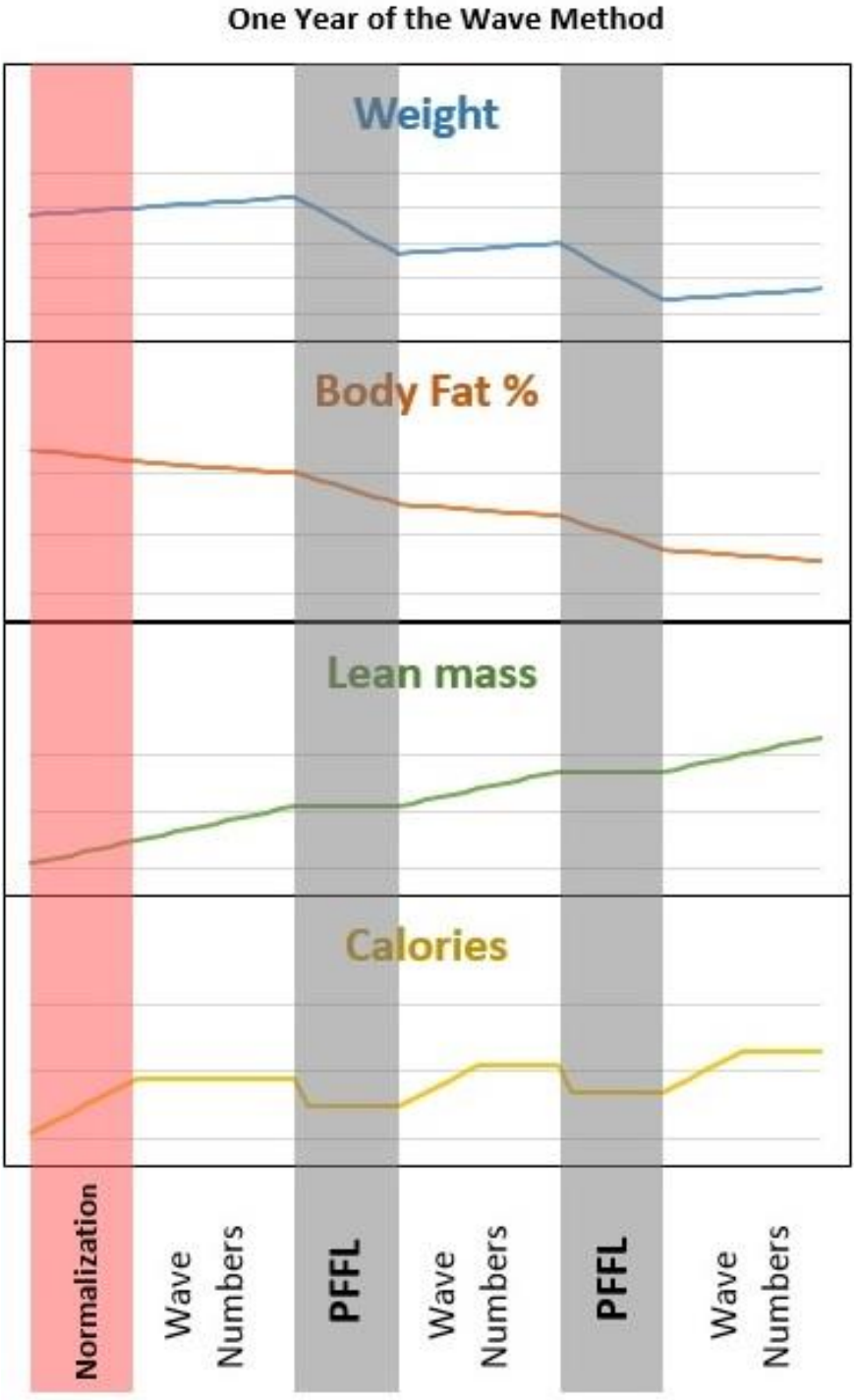
Keep in mind that you're addressing your fat layer at every step of the process. Folks think it's only during the PFFL cycles that you're working on fat loss, but in reality it's the other 5 steps that set you up to lose fat. Remember, MOST of your time should be spent working on expansion and eating your Wave Numbers.



It's important to continually go back to Step 1 to enhance the plan. If it takes a couple of "rinse and repeat" cycles, we can walk you through it each time. This is all highly individual. Even though we can give you general strategies in a book, there's no substitute for having knowledgeable and supportive coaches helping you along the way.

Big Picture: A Year of The Wave Method

The graphs below show a typical year of The Wave Method. Fat loss is almost never linear. People often have peaks and valleys due to things like injury, illness, vacation, and changes in training. However, this chart shows some general trends and gives you an idea of what to expect over the course of a year.


One Year of the Wave Method
Weight
Body Fat %
Lean mass
Calories
Normalization
Wave Numbers
PFFL
Wave Numbers
PFFL
Wave Numbers

Along the bottom of the chart are the different phases: Normalization, Wave Numbers, and PFFL. The **Normalization** phase starts when you begin working toward your Wave Numbers. The chart assumes you are coming from an undereating background, so as you work up to your Wave Numbers, lean mass should increase, body fat should decrease, and weight should remain the same or may increase very slightly. For someone who has been overeating, calories will come down to become normalized, weight and body fat should decrease, and lean mass will likely remain constant or increase slightly. The time you spend in this phase depends on how much you were under- or overeating, and how quickly your body adjusts to the new caloric intake. It can take up to 12 weeks, although most people are able to normalize within 3-8 weeks.

As you can see, most of the year is spent eating your **Wave Numbers**. During this time, lean mass should be increasing, body fat should be decreasing, and weight should remain stable. Body weight *may* increase a bit during this period, due to increases in lean mass. You should eat your Wave Numbers for at least 12 weeks before beginning a new PFFL cycle.

During the **PFFL phase**, calories will come down and lean mass will remain stable. Weight should drop during this time, and body fat should decrease at a more rapid rate. When you reverse diet after a PFFL cycle, you will slowly increase calories to at or above your previous Wave Numbers.

Throughout the year on The Wave Method, you can see that you are always addressing body fat and lean mass, even though body weight may not be decreasing in a linear fashion. In the end, you are increasing your work capacity, metabolism and lean mass, which is what will ultimately get you to a body fat percentage that supports your activities and aesthetic goals.

A

Case Studies

In this section, we'll give some real-life scenarios of how this all works in practice. Without having personalized coaching you won't have an exact plan that's tailored just for you, but these four case studies will cover a pretty broad range of situations.

We'll start with a basic scenario, then we'll peel back the onion a bit to address difficulties and issues that may come up in each scenario. We'd encourage you to read through each scenario, even if it doesn't fit your "profile", as there is information everyone can apply to their situation within each case study.

Case Study 1

This is a 300-pound female who has just started working out and is stalled out on fat loss at 2300 calories/day (TDEE is 3156). Clients like this are the ones who will have the most behavioral issues. A 300-pound female with a lot of fat to lose has a lot going on. If this person is eating 1200-1500 calories, now we've got a really big issue because some of the behavioral issues can become a problem – leading to binge eating and ultimately non-adherence.

THE STATS	
Weight: 300 pounds	**Gender:** Female
TDEE: 3156 calories	**Current daily intake:** 2300 calories
Goal: Fat loss	**Current Training:** Crossfit (beginner)

THE PLAN

Weeks 1-6: Reverse Dieting Phase
Add 100 calories per week to get to 2900 calories on build days and 2500 calories on recovery days

Weeks 7-12: Expansion Phase
2900 calories (build days); 2500 calories (recovery days)

Weeks 13-20: PFFL Phase
**Note: Even though we're calling this the "fat loss phase", we're really addressing fat loss at every phase as we increase work capacity, metabolic capacity, and ultimately body composition.*
2500 calories (high build days); 2250 calories (medium days); 2000 calories (low days)

Weeks 21+
Repeat three phases above until fat loss goal is reached

Training
Increase NEAT, lift weights, high-intensity exercise 1-2 times per week if overall lifestyle stress is relatively low

Nutrition Recommendations

Remember, the most important part of the wave method is not the cutting part, it's the expansion part. We need to get her in the neighborhood of her TDEE/Wave Numbers of 3156 calories. We definitely don't want her going lower than 2300 for a couple of reasons. First off, 2300 has her stalled. Also, you start to get into a

mental struggle with restriction. You *could* put her below 2300 and get some weight loss, but you'll run out of room to go down pretty quickly. We'll move her from 2300 to at least 2700-2900 before she starts a PFFL cycle. Then we can go back down from a higher point.

The goal is to add 100 calories a week to get from 2300 calories to 2900 calories over the course of 6 weeks, then maintain for 6 more weeks, and start PFFL at 3 months.

Once she gets through that 6-week period of building her macros up and maintains at 2900 on workout days and 2500 or so on recovery days for an additional 6 weeks, we would put her at 2500 calories for high training days (HIIT, weight lifting, Crossfit, etc.), 2250 for medium days (yoga, light jogging, etc.), and 2000 for low days (doing nothing) for a period of 8 weeks. Here's how the macros break down:

- High days (2500 calories): 175g protein / 259g carbs / 85g fat. Protein is a little more than 1g/lb of her lean mass of 155 pounds, or at roughly 60% of her total weight. This is an example where, for a bigger athlete, her fat stores are going to serve as some protection for muscle. You don't want to force 225g of protein on this athlete, because it's unsustainable.
- Medium days (2250 calories): 175g protein / 207g carbs / 80g fat. Protein doesn't change in any scenario. Carbs don't go much lower because we want her to have energy. There is likely some level of insulin resistance going on here. Hopefully, the fats are high enough that it's keeping the calories at a decent level.
- Low days (2000 calories): 175g protein / 156g carbs / 75g fat. For a smaller athlete, that might be a lot of fat. In this instance, it gives this her enough fat to not feel super uncomfortable, but not so much that she won't rely on stored body fat.

Any time you're cutting, it's going to be uncomfortable. But the more time you can spend at that higher caloric level (high or medium), the more comfortable things are going to be. We want people to lose about a pound a week. An athlete like this might be able to lose more, depending on how long she was dieting at that 2300 level.

Ideally, we would like to see this athlete in the 2250-2500 range as much as possible. We don't want her stressing herself out, but if she feels like doing something active, we would encourage her to do that. She doesn't need to be doing intense workouts 5-6 days a week, in fact that will most likely backfire. But if she can get out for an easy walk several times a week in addition to her weight lifting, that will be helpful for her. Having that approach allows her to be less restrictive with calories. For someone who is 300 pounds, going down to 2000 calories is an incredible drain on her body. If we can keep her at 2250-2500, that's going to be a good thing.

Here's what happens for many people. They see the magic in the 2000 calorie days. In this case, she plateaued at 2300 calories, so she thinks she should decrease to 2000 calories and stay there for as long as possible. That's not the idea here. The idea is to stay as close to that 2250-2500 while trying to get in more NEAT or low-intensity steady state work. Just going for a hike at a local park is a great way to get rid of some of that stress while burning calories.

We really try not to have anyone go below 120-150 grams of carbs during any part of PFFL, because at that point NEAT tends to drop off and they just don't feel very good. We don't want people getting down to 50 grams of carbohydrates, even on recovery days.

Again, larger athletes don't usually feel nearly as uncomfortable with the reduced calories as smaller athletes do at 4-5 weeks in. Activity is something we've gotten really serious about

with people. In this case, we were monitoring her activity, and her calorie burn was in the low 2000s much of the time. Making her conscious of that got her closer to a 3000-calories burn, and that's going to get the ball rolling.

In this scenario, we always want to introduce a "Wave Plus" day every 7-10 days during PFFL where there is some level of flexibility (e.g., eating 500 calories over TDEE). People say, "That sounds like a cheat day." Well, no, because in every one of these case studies, the athlete will have enough flexibility within the macros to eat the foods they enjoy on most days. Having this crazy day where they're eating large amounts of food and ultimately becoming uncomfortable and having stomach issues is not the goal. You'll see that throughout the week, the scale trends downward. It tends to be a little more linear for some people, while others will plateau for a week or so, and then, boom, five pounds down. If they were measuring their body fat throughout that time, they would see it going down even though weight is not really changing.

The biggest factor for these athletes when they start to stall is that even on the days when they eat more, their burn is still high. So there's never really an excess calorie day, even factoring in the occasional margarita and nachos meal. If you have surplus fat to use, you will ultimately wear yourself down a lot of the time. I (Paul) know I certainly did during many of my unsuccessful attempts at losing fat. One of the things I had to learn to do was to chill out. Otherwise, you're going to get sick or hurt. Being on the sideline is certainly not helping the situation.

We see it often. These larger athletes get to that high stress level really fast. You see them in gyms all the time – someone is 250-300 pounds, and they just don't seem to be changing all that much. So you assume they must have a lot of bad habits. But then you talk

to them, and find that their habits are mostly good. They certainly have the occasional instance where they've been overly restrictive and have a binge session or two, but those aren't huge setbacks for people. Really, the bigger setback is constantly trying to kill yourself in the gym and not getting any results.

Some people, especially those new to training, will actually put on muscle in a deficit. That can be confusing when a person hasn't lost weight, so we need to have them watch for a difference in pictures or how clothes fit.

We always have people set a time limit of 8 weeks for the cutting period. Whether or not you've hit your goal, you're done at 8 weeks. If you didn't hit your goal, it was for a reason. When you plateau, that's the biggest sign that it's time to chill out. Unfortunately, many times people don't listen to those signals.

If you were to look at body composition or weight over time for people involved in fat loss, you'll see it go down then plateau for a bit, then go down, then plateau for a bit. Where people get tripped up is they get to that first little plateau and freak out. It's best at that point to just wait it out for a week or two and see what happens. Often, it just takes the body a bit of time to catch up. Stress, once again, is a big factor here. We've had clients who hit a plateau and then go on vacation. All of a sudden, when some of the stress is removed, the fat starts coming off again. At the end of all of this, you want to be at one of these plateaus, just at a lower point. You want to be stable at that lower body fat level.

At the end of the 8-week PFFL phase, we would then have this person reverse diet back up to 2750-3000 for 6 weeks, then we'd go back down. We'd just rinse and repeat that cycle. They might be able to lose 20 pounds each cycle. Over the course of about a year and half, they might be down 100 pounds. That's doable, right? If

you say, "I have 100 pounds to lose," that seems like a mountain! And almost everyone fails in that scenario because they make it into a mammoth obstacle. But as someone who eliminated 75 pounds of body fat off of my frame, I (Paul) can tell you I did it by incremental change by slowly tackling it. I never thought of it as 75 pounds to lose. I didn't even know how much I wanted to lose at that point. All I could think about was losing five pounds at a time.

Training Recommendations

We prefer to have athletes like this avoid a lot of HIIT or other stressful training. We will have her get her NEAT up by adding in walking/hiking, do more strength training, and maybe do 1-2 days of higher intensity work. Lifestyle stress is a factor here. When a person has a lot of outside stress, we recommend reducing the amount of stressful training like HIIT or Crossfit WODs.

A lot of bigger athletes don't have success with Crossfit or HIIT training because outside stressors and overtraining become a big part of getting stuck. It also depends on the capacity of the person. Sometimes athletes become too aggressive with this type of training in hopes of looking like a Games athlete as quickly as possible. It's much better to start more conservatively and slowly ramp up over time. This way, you can monitor things like sleep and recovery to get good indications of how your body is responding to the increased activity. If you start at a super high level, the only place to go is back down. At that point, you've still got the residual fatigue to deal with, and there's the mental battle of knowing you're doing less. We're big fans of doing less than you think you can do to start. That gives you the mental win of slowly increasing over time and getting better instead of having to do less. If you find out

you're maxed out at, say, three high intensity sessions a week, you'll know what works well for you.

Keeping activity high with low-intensity activity is the key to seeing progress during a cut. In these scenarios, we like to have athletes train as much as they like while they are getting results. But if they stop getting results, then we have to start tinkering with things. The problem with going to a lot of working out and eating drastically less is that you run into that stress wall really fast, and you'll stall out at that point.

Keep in mind here, that the little tweaks we make along the way when one person hits a plateau may not work for you and vice versa. But you need to find your own groove, and once you find it you can really start hammering it and getting results.

Stress Management

This athlete needs to pay attention to NEAT and low-intensity steady state (LISS). If she's not getting enough of this type of activity, that may be what's stalling her. If she's eating a good amount of calories, exercising, and getting in enough NEAT/LISS but has plateaued for a significant amount of time, that's when we've got to start looking at stress. Heart Rate Variability (HRV) testing is a great way to measure this. There are some great devices coming out soon that will measure HRV outside the lab.

Some level of carbohydrate increase during the reverse dieting phase is going to help with stress as well. If you've been hitting that low-calorie, clean eating wall for six months and you're not getting results, it may scare you to go the other way. But often, that's exactly what's needed. When people get lower and lower on carbs, the first thing we do is measure their performance. Many times, they'll report that their training "feels really hard," so they

must be doing well. That doesn't necessarily mean they're improving performance-wise. Often, we find that it's the opposite. Once they start measuring performance, they find that it *feels* harder while their performance is actually trending downward. As they start adding carbohydrates before, during and/or after their workouts, they find performance going up; and it doesn't feel as difficult. So it's more helpful to measure how much work you actually accomplished rather than how difficult the training session felt.

To measure stress, you can monitor resting heart rate using a heart rate monitor. Another really easy way is to wake up each morning and rate how stressful the last 24 hours were on a scale of 1-10. If you can do this on a daily basis and see patterns over time, it can be really helpful. It sounds a little woo-woo, but we'll also have people check in with their breathing. Many people shift to upper-chest breathing when they're stressed. Sometimes this manifests itself as low-back or tightness in the trapezoid muscles. Over time, you can tell when you're more stressed by checking breathing and then trying to relax your breathing. Just being aware of it can be helpful.

Some of the HRV testing can be expensive. But if you're struggling and you've tried everything, it's a good thing to know. If you find that you're fatigued based on HRV testing, you've got to reverse out of that by exercising a little less and eating more, especially carbs. For athletes in that situation, especially those with a large amount of fat to lose, it can be really frustrating. It is probably a longer process for these athletes, but it's worth it. These are folks who tend to go to extremes, because they want to end their pain right then and there. In reality, that approach will cause more problems than it solves.

Case Study 2

Our next scenario involves a 5'2" female who weighs 135 pounds with a body fat percentage of 32%. This probably represents a good percentage of the clients we work with at Eat To Perform and a good 10-20% of the athletes in many gyms.

TDEE is 2200, and she works out 5-6 times a week. She's struggling to get under 30% body fat and ultimately wants to get down to 20%. Her lean mass is 92 pounds. On a female athlete with that frame, we'd normally like to see at least 100 pounds of lean mass. There are certainly exceptions to this for smaller ladies or endurance athletes who may have a lower body fat percentage but not as much lean mass. That's going to be a more favorable body composition for endurance-type sports.

Everyone says they want to lose fat and gain muscle. The problem is that unless you're really new to training, most people can't do both at the same time. You have to pick one. And you should mostly be trying to stay weight-stable or increase lean mass. If you're constantly banging on the low-calorie door, you're really not putting yourself in a good position metabolically. That's why expansion is so important in this instance.

THE STATS		
Weight: 135 pounds	**Body Fat:** 32%	**Gender:** Female
Height: 5'2"	**Current Training:** Crossfit 5-6x/week	
TDEE: 2209 calories	**Goal:** 20% body fat	

THE PLAN

Weeks 1-6: Reverse Dieting Phase
Add 100 calories per week to get to 2200 calories on build days and 1800 calories on recovery days

Weeks 7-12: Expansion Phase
2200 calories (build days); 1800 calories (recovery days)

Weeks 13+
Assess body fat percentage and determine if she wants to maintain at a lower body fat percentage or make changes to training and aggressively cut calories for a focused 8 week period of fat loss.

Training
Increase NEAT, rep-style weight lifting

Training Recommendations

In this case, we'd like to see her expand her muscle mass. However, people in this scenario generally tend to avoid strength training. They tend to do quite a few WOD/hybrid-type workouts (what you'd typically think of as cardio).

We like to have these folks pick one or two days a week to do strength training. If you follow them around the gym, you have to get a seat belt to strap them down to the chair so they don't get up during recovery periods. They're just so used to going, going, going. Having those focused periods of strength work does seem to help quite a bit. More specifically, rep-style training is going to be

helpful. This is not typically someone who is going to go in and work up to a 1 rep max lift – that will drive them crazy. So one of the best ways to adjust for this person is to do two days of rep-style weight training each week. It can look like circuits, just slow down a bit with 4-5 exercises of 10+ reps. We'll want them to test that top end and then rest, move on to the next exercise, and repeat for an hour. That's going to be a much better formula than HIIT-type work 5-6 days a week.

We'll want this person to test body fat percentage every couple of months and stay the course as long as body fat is trending down. When someone goes from 91 to 100 pounds of lean mass and stays weight stable, we've really just addressed deficiencies. If you're a trained athlete, you've already used your trump card. Training alone isn't necessarily going to get you the body composition you want; you'll have to take a different approach. Now, all of a sudden, we match your energy output with your energy input, and we've addressed the deficiency. You may not continue to see progress in body composition after that point, and that's where you might add in a period of focused fat loss.

This person needs to be more focused on building metabolic capability by taking muscle building more seriously. As she does that, big changes will happen.

Nutrition Recommendations

People who show up with 91 pounds of lean mass are usually coming from an under-eating background. So we'll definitely try to get her closer to the 2200 number. We'll spend 6 weeks or so working her up to that, by increasing 100 calories per week. Then, she'll maintain that level for at least 6 weeks. At that point, we'll need to assess where she is and what her goals are.

Here's the thing: not everybody needs to do a PFFL cycle. It's a good strategy if you want to get into a weight class for competition, or get abs. It's the kind of thing you probably think you want to do, but you really don't want to do it.

One of the great things about Eat To Perform is that people start to change their view of fat loss. They realize that what they now recognize as extreme dieting is not ideal. If we get this person from 1500 calories to 2200 calories, which increases her lean mass to 100 pounds, we've positively affected her body composition. We want to keep her at that calorie level as long as she's weight-stable there. Keep in mind here, the scale may not be changing in this scenario, but she's gone from 32% to 26% body fat.

This is why what we're talking about is so fundamentally different. We're not the first to talk about it – strength and conditioning coaches have been saying it to their athletes forever. But nobody's ever said this to 46-year-old or 58-year-old females. That's where we are different. Of course, it works for 16-year-old boys too.

What if our 5'2" case study actually gains weight in this scenario? Say she started at 135, gained 9 pounds of muscle, and lost 5 pounds of fat? She's at 138 pounds, but she's at 27% body fat instead of 32%. And she'll see some positive change.

We won't get into macros in the remaining scenarios, because that's not where the magic is. The magic is the calorie levels, and trying to keep these athletes at a high calorie levels where they're able to train and keep stress levels down.

If she gets to the end of the 12 weeks and decides she wants to do an 8 week period of focused fat loss, we'll set her calories at 1700 (high/workout days), 1500 (medium days) and 1300 (low days). We really don't want to see her at 1300. The problem with 1300 is it's going to negatively affect sleep, recovery, and those

kinds of things. We'd rather see her increase the low-intensity work, and maybe even decrease some of the high-intensity work, and stay at the 1500/1700 level. It's a bigger time investment to do the low-intensity training. Efficiency is one of the attractive things about high-intensity training.

At times, a person's goals may be working against each other. For example, it can be very difficult to drop body fat while doing a lot of high-intensity work. If this athlete doesn't want to reduce the high-intensity training, that's fine. She's chosen getting better at exercise and building muscle over fat loss. There's no problem with that! 27% body fat is a very healthy percentage for a female. But she'll need to understand that she's made a conscious choice to build work capacity rather than focusing on fat loss at that point, and that's okay too. If she wants to revisit fat loss another time when she's willing to reduce the high-intensity work, she can always do that.

Case Study 3

Case Study 3 is a 5'8" male who weighs 195 pounds and is 45 years old. He is not vastly overweight; he's 24% body fat and trying to get that down a bit. Lean mass isn't phenomenal, but it's not bad. This is the average person that is new to training, or has been around the block for a while but hasn't taken training very seriously.

Lean mass is roughly 148 pounds. This is similar to my (Paul's) lean mass, but I'm at 168 pounds. I know this scenario well. Many people are in my situation and want to know how I did it.

This person probably has some bad habits, and probably doesn't care about getting down to 10% body fat. But he can get to 15-16% with relatively easy changes.

This is someone who has been overeating, and we use it as an example because not everyone comes from an under-eating background. Everyone starts at the beginning (i.e., working to get to their TDEE/Wave Numbers), regardless of their background. The difference is that it usually takes under-eaters longer than over-eaters to start seeing results because they need to get metabolic capacity up a bit before they can start dropping fat.

THE STATS

Weight: 195 pounds **Body Fat:** 24% **Gender:** Male (45yo)
Height: 5'8" **TDEE:** 2800 calories **Goal:** 15-16% body fat
Current Training: New to training **Current Daily Intake:** 3500 cal

THE PLAN

Weeks 1-26
2800 calories (workout days); 2400 calories (recovery days)

Weeks 26-34: PFFL cycle
Assess results and goals. If he wants to pursue aggressive fat loss, we would bump him down to 2300 calories (high/workout days), 2100 calories (medium days) and 1900 calories (low days).

Training
Increase NEAT, heavy lifting 3x/week, 1-2 days HIIT or WOD training

Training Recommendations

Even if this guy was working out 4-5 times a week, we'd put him at "moderately active" on the ETP calculator in the beginning. Someone who is 24% body fat, even if he's been training for a while,

may not necessarily be responding to his training all that well. Or maybe he's eating too much. Some level of moderation is going to make sense. Starting this athlete off at 3100 calories probably won't add much to the equation unless he adds some low intensity work. He'd be better working on some better habits first, and then make some changes to calorie levels as those habits become established.

It's also important to take a person's job into account when determining activity level. If someone exercises 4-5 times a week for 60 minutes, but is an office worker that only gets 2000 steps a day, his activity is very low for most of the day with one spike of high activity during his workout.

The reverse is also true. Someone who works out 4-5 times a week may not think they need that many calories. But if we find out this person is a postal or construction worker, we would rate that person at "very active" on the ETP calculator.

Work capacity will probably increase if his weight comes down a little bit. In 6 months, as he's started to lean out and put more muscle on his frame, body weight exercises like pull-ups will improve. Strength might not go up significantly during this part of the plan, but it shouldn't drop off either.

Nutrition Recommendations

This guy doesn't need extreme restriction. We'd move him down from the 3500 calories he's been consuming to about 2700-2800 calories for a period of several months.

If he sees some results while eating at TDEE, gets down to, say, 185 and wants to do a PFFL cycle, we'd reduce his calories down to 2300 on workout/high days, 2100 on mid-active days, and 1900 on low days. We'd try to keep the numbers as high as possible

while seeing a good result, but it's still going to be a little uncomfortable.

During a cut, he should load as much food before a workout as is comfortable. We still want him to be getting as good at exercise as he possibly can. If he works out a 6 PM, we'd have him eat 90% of his calories earlier in the day, with about 60% of his calories being consumed in about a 5-hour window before his workout. If he's already low on calories and he saves all his calories for nighttime, now he's compromised his workout.

It's the same idea if he works out at 7 AM. The night before, he'd have a carbohydrate meal and a dessert he enjoys. Simple sugars before bed, in this instance, are going to have a positive effect. For some people, that might be dates, for others it might be Fruity Pebbles. We don't have a problem with either of those choices. We're not going to tell you what foods to eat, we're going to tell you how to eat to perform better and stay within these calorie and macro ranges to get results. People get hung up on food purity, and it is frustrating because it misses the overriding point.

There's a whole side tangent we could discuss about injecting morality into food choices, but your calories should be going up because you've expanded work capacity and metabolism. So having a pop tart or Fruity Pebbles here or there is not going to make much of a difference because you have enough calories available to eat many other nutrient-dense foods. If your calories are obscenely low at 800 or 1200 calories and 30% of your intake is Fruity Pebbles, you've got more to worry about than someone who is at 2700 calories and has the occasional bowl of cereal. People tend to look at a single food that's part of a much bigger picture and lose their minds over it.

Everyone comes to these scenarios with complicated relationships with food. We'd like to think everyone has a great mindset concerning food, but that's not usually the case. If a picture of a Rice Krispy Treat bothers you, I (Paul) can tell you it doesn't bother me. I don't eat Rice Krispy Treats because it's just not a food I enjoy eating. But if it bothers you, that tells us that maybe your approach to food is part of the problem. Sugar is not the problem, the fact that sugar weighs so much on your brain that it becomes an anchor is the problem. We're not advocating massive amounts of sugar, but taking the stigma away from it is mentally freeing. That freedom allows you to do things like go out on date night and enjoy yourself in social situations. Anyone who has been on a diet, hammering on low-cal or low-carb for a long time will understand that.

Let's get back to the case study. We like to set ranges of goals for people, to have them make a plan and have incremental goals as they go. If this athlete's goal is to get to 182 pounds and he weighs in at 182.9, he's reached the goal. Making gradual progress and achieving these small wins can make a big difference in how well he's able to adhere to the plan and continue making incremental changes.

The 8 week PFFL cycle is often a time of establishing some of these behaviors. The next time this athlete does a PFFL cycle it will be easier, because he'll have a better idea of what works for him and what doesn't without having to experiment for the first 3-4 weeks.

There's a huge benefit to limiting this to an 8 week time period. It's refreshing to take this approach when you're trying to hit a goal. You end at a certain point, no matter what the scale says at that end point. We're shooting for a pound of fat loss per week, but not all athletes are going to reach that exact goal. Regardless, this

phase is over in 8 weeks. This time frame allows for adherence, because you can stick to the plan when you've only got a set number of weeks left to go.

The other strategy for getting through the more aggressive fat loss phase is making sure that when it gets difficult and you want to give up, go have a cheeseburger and chill out. That's probably going to help you more than it will hurt you.

Hammering harder is not the thing that's going to get you over a plateau. That's where the "cheat meal" people have it right. We don't like the inference of "cheat" since it indicates a negative relationship with food. But when you have a meal outside of your plan, you're upregulating all your hormonal activity. It's also mentally freeing. It's positive from a hormonal standpoint, and you'll sleep better. Your libido will be up, and things will just be more positive.

Case Study 4

Our last example is a 150-pound male who is 5'10" and needs to gain weight. He's very active with a very high metabolism. He's just constantly up and about and works out often (primarily cardio/metcon-type WODs). Being naturally inclined to be more active is one of the big advantages of being lean, but it works against an individual who is trying to get bigger. In the ETP calculator, we'll put him at "very active".

While Case Studies 2 and 4 are similar in that both people have a "lack of muscle" problem rather than an "abundance of fat" problem, our training recommendations will be slightly different. This is primarily because our male athlete in Case Study 4 is likely more willing to put on a bit of fat, so we're not emphasizing fat loss

as much. For our female athlete in Case Study 2, her primary goal is fat loss, so her training recommendations are slightly different.

THE STATS	
Weight: 150 pounds	**Gender:** Male
Height: 5'10"	**TDEE:** 3000 calories
Goal: Gain lean mass	**Current Training:** Cardio, WODs, metcons

THE PLAN
Nutrition 3000-3400 calories (150g protein, 100-125g fats, 375-425g carbs)
Training Heavy lifting 3x/week, 2-3 WODs/week

Nutrition Recommendations

In this instance, TDEE is 3000 calories. That may sound extreme, but his metabolism is very high and he's trying to put on weight. Protein will be set at 150 grams, carbs at 375 grams, and fats at 100 grams. He'll be working with a good amount energy from the carbs. Fats are going to help with hormones and give him some energy density that makes it a little easier to get that many calories in. Even 125 grams of fat is fine, but more than that gets in to the excessive range. Many of these types of folks are doing paleo, eating 200 grams of fat and wondering why they can't gain any muscle. All that fat is blunting insulin, and they're not letting it do its job. When they keep carbs low on top of that, they're not going to promote the muscle protein turnover they need to increase lean mass.

These athletes need to lift. That's the big factor. The food is important, but it's really the lifting stimulus that matters. They also need more energy-dense sources of calories, as they tend to have problems consuming large amounts of food.

Sometimes, these athletes have a metabolic rate that keeps going up higher and higher. Their caloric requirements still need to scale up. At some point you will out-eat your metabolism, but if we can get enough food in these people, they usually respond really well. The people that have a tougher time are the ones who are skinny-fat with a lower metabolic rate. They may even gain a little bit more fat once they ramp up. They can still get great results, but the process just tends to be a bit slower for them.

Training Recommendations

We could have him raise his calories and continue with the high intensity training. Often, this type of client gravitates toward quite a bit of cardio and WOD-type activities. However, we'd prefer to keep him eating 3000 calories and get him lifting 3x a week doing whatever he wants to do. Deadlifts, squatting, Olympic lifting: those are all fine, as long as it's heavy. We'll want him to stay away from WODs on those days.

This is a different training recommendation than Case Study 2 with the female who only has 91 pounds of lean mass. This person also doesn't have enough lean mass, but we want to get him stronger and *also* have him do rep-style training. Out of 3 lifting days, one would be heavy deadlifts or squats. Another day would be something like a Hatch or 20-rep squat protocol – pump-style training days. We'd have him start with 30 minutes working up to doubles and triples, then work back down to sets of 20. So let's say his squat 1-rep max is 275 pounds. He'd work up to 225-235 for

doubles and triples, then come down for 20 rep squats at 165. Then he'd take 2-3 exercises, maybe front squats, heavy KB swings for glute activation, then glute-ham developer or some other posterior-chain exercise. The third day is a potpourri day – abs, chin ups (to build biceps) – basically, whatever he likes to do. We like to see higher reps on this "potpourri" day, with a circuit of 4-5 exercises he wants to do. He's going to have other days where he's doing WODs and maybe Wendler deadlifts and squats, and he won't always have control. We want him to have days where he has some control, and it's not as stressful. TDEE on a lot of those lifting days ramps up to around 3400 calories so he can put on some mass.

This person started like me (Mike) in college. I'm 6'3" and I was 156 pounds. I was a pretty skinny dude. He is also a good candidate for the old-school method of working up to a heavy 5x5 rep scheme on Monday, Wednesday, and Friday with a favorite compound exercise (deadlifts or squats, for example), and then maybe doing some 3x10 accessory work after that. Tuesdays and Thursdays would be a WOD or hypertrophy day that's more metabolic and less stressful. We usually find that if you slowly ramp up the stimulus enough, folks with a really high metabolism tend to respond pretty well, assuming they keep eating enough.

Closing Thoughts

Why are we talking about someone who doesn't need to lose body fat in the Wave Method book? I thought this was about fat loss! NO! That's not what the Wave Method is. It's about expansion; it's about going up most of the time. In the first case study, you don't need that athlete going down to 1500 calories. That's the "Biggest Loser" approach, and those folks end up not being able to

recover hormonally for a long time, if at all. It makes for a good game show, but it doesn't make for a healthy person.

What we're really pointing out here is that in every case, we're using the Wave Method to affect the athlete's set point positively. As human beings, homeostasis is where we want to be. Changing the set point is very difficult, especially trying to move it down. If there's a point where you always stall out and can't get below that, you're doing it wrong! You've got to expand first.

We need to let people be who they are. If you enjoy dancing or roller skating or gymnastic movements, don't remove those things just because you're trying to get a specific result. You don't have to get that result today. You've got to buy into the concept of small, incremental changes that fit within your lifestyle.

What we've been talking about here is mostly expansion most of the time. In only one instance did we talk about a smaller window of expansion, and that was in Case Study 1 for an athlete with a large amount of fat to use. What's really changing for that athlete is work capacity. When you take someone from 300 pounds to 200 pounds, guess what? Their life just changed fundamentally. And it happened because of expansion. We didn't increase TDEE, but we increased metabolic capacity by increasing work capacity. Work capacity can be walking, hiking, etc. You don't want to be constantly engaged in high-stress training and breaking your body down.

Most people need to focus on more of an expansion mindset. If you go a little outside of your current capacity, over time it starts to get bigger. You don't have to go to max effort every time you step foot in the gym. Those incremental changes do make you better, and the process gets a little faster as you go. As you gain better capacity, you also have a better ability to handle stress, daily

living, etc. You get away from that restriction model of everything being negative. In the restriction model, you have results for a while, but you tend to plateau pretty quickly and everything else scales down with the plateau.

We need to say a few words here about high stress/high intensity training. It's great for adaptation, but it's basically distress training. There are times where distress training makes sense, and there are times where eustress training makes sense. Eustress training is lifting weights slowly, doing low intensity work and other activities that don't stress you out. But there is also value to stress up to a certain point. That's something we have to start thinking about. What is your goal on this day? If it's a cardio/metcon-type day, you're trying to get in the most work in the least amount of time. If you're standing there trying to shake out your arms for 15-20 seconds so you can get through a set of pull ups and move on to the next part of the WOD, you're not accomplishing your goal for that day. Who RX'd the workout isn't the point. The point is who did the work? We would argue that scaling back the workout so that you can keep moving through it is going to produce a much better adaptation to that training stimulus.

Whether you're the athlete or the coach, you need to think more about this, especially for athletes that are bigger. If you're a larger athlete who is still finishing the WOD at 32 minutes while the rest of the class is finished at 16 minutes, you're not getting the intended stimulus out of that workout. You're going to stress yourself out. Workouts should be scaled so that everyone is finishing in roughly the same amount of time.

The bottom line is that for us to get the most out of what we doing, we've got to put some thought into nutrition and training so that we're ultimately getting the results we want.

B

Tips for PFFL Cycles

Eating at a deficit can be difficult at times, especially once you've spent at least 3 months eating your Wave Numbers and thriving at the gym and in your life. It takes some discipline and some trial-and-error to find what works best for you.

This section includes some general tips for making it a little easier to get through your 8-week PFFL cycle. Keep in mind, these are not ETP "rules", but strategies that some Science Lab members have found helpful, and may be beneficial to keep in mind. This phase shouldn't feel like torture, but there's a reason we only allow people to stay here for 8 weeks. The PFFL cycle is a great strategy for focused fat loss, but it will definitely limit your ability to increase work capacity. These tips may help you minimize, or at least manage the effects of eating at a deficit.

Get an Activity Tracker

The activity tracker is a game changer, there's no doubt about it. Having the ability to track your calorie burn from day to day can make the difference between being slightly uncomfortable and being miserable. If you're underestimating your calorie burn, your deficit will be too low and you will start to see all sorts of unpleasant side effects – from poor sleep to low libido and sluggishness during workouts. If you overestimate your burn, you

may not be at enough of a deficit to really affect your fat layer as aggressively as you'd like to during this phase.

If you're going to put in the time and effort to do this cycle, you'll want to do everything you can to make it successful, and activity trackers are a great tool. We typically recommend the Fitbit Charge HR, although there are several trackers that will do the job.

Don't Go Too Low Too Early

Try to spend most of your time at the high/medium numbers, especially in the first 3-4 weeks. That low number is called the "Hail Mary" number for a reason. If you stall out with fat loss while following your high/medium numbers and getting in plenty of NEAT, your first line of defense should always be a Wave Plus day. Then wait a couple of days, and if the scale doesn't drop, you can try a low day. Make sure it's a recovery day – don't try to train on a day when your calories go super low.

Embrace the Wave Plus Day

Your Wave Plus day should happen every 7-10 days, and that's when you eat 500 calories over your Wave Number. This is your TDEE, *not* your highest PFFL number. So if your Wave Number on training days was 2500 and your PFFL numbers are 2000/1800/1600, you'll eat 3000 calories if your Wave Plus day falls on a workout day.

The Wave Plus day can be difficult mentally and uncomfortable physically. You've been eating at a deficit, hungry at times, and probably watching the scale drop a bit. The tendency is to want to stay the course, and it may feel a bit like self-sabotage. You might think you're blowing it – you're not. If you keep hammering at that

deficit without a break, your fat loss will stall out sooner. The Wave Plus day should come just often enough that your body gets the message that you're not starving it. We'll talk about the scale in a bit, but people often see their weight stay the same or drop after a Wave Plus day.

Take your Wave Plus day before you think you need it. If you get to the point where you're about to dive headfirst into a major binge, you've waited too long and it will be harder to control. You may also get some bloating if you wait too long. Go ahead and take that Wave Plus day, but keep that feeling in mind for next time and try to pre-empt it.

The Wave Plus day can be either a workout day or a recovery day. The benefit to planning them for workout days it that it gives you more to work with to push your performance a bit. If you're feeling really run-down in general, it can be helpful to plan them on a recovery day, and recover like a boss.

You May Need to Adjust Your Training

The PFFL phase is not the time to be shooting for PRs and dramatically increasing your training volume or load. And don't schedule a PFFL phase right before a competition. Sticking with the same training protocol can be difficult mentally, because the decreased calories will almost certainly be reflected in your performance. Higher volume, lower weight is one protocol that works well for people. Keeping your lifting at 50-60% of your 1 rep max, with a higher number of reps, will allow you to preserve lean muscle while eating at a caloric deficit. If you want to push your training, do it on a Wave Plus day. It may feel like you're getting weaker, but if you keep an appropriate training stimulus, strength should return quickly once you're back to your Wave Numbers.

Another option is to do an entirely different training protocol during this time. This helps with the mental battle because you're not comparing your performance to something you've done before.

If you are a Crossfitter, you may need to reduce the number of WODs you do in a week. You can replace them with lifting, or do the WOD with rest breaks (i.e., not for time). Too much high-stress training can stall your progress, make you feel "puffy" and will take some time to recover from.

These are just a few methods for adjusting your training during the PFFL cycle. There are many ways to skin this cat – the point is to be prepared to make adjustments. Hammering your body while eating at a deficit makes this phase harder than it needs to be and often stalls your progress. Be conservative in your training and prioritize recovery.

Eat Real Food Whenever Possible

We don't advocate having a good/bad food list at Eat To Perform, but we're definitely fans of eating real food whenever possible, especially during a PFFL phase. There are a couple of reasons for this. First, real foods tend to be more satisfying. For example, it can be helpful to get most of your protein from whole foods rather than protein powders during this time, because protein powders tend to get digested more quickly and you'll be hungry sooner.

Secondly, since you've got fewer calories to work with, your food choices matter more. You want to be getting a good amount of vitamins and minerals from whole foods, and with fewer calories you'll have to be a bit more intentional about getting them in.

Pre-Planning is Key

Along those lines, when calories are reduced, pre-planning is really important. You just don't have enough wiggle room to wing it. There are tons of ideas for this in the Science Lab forum, but having cooked proteins ready ahead of time and planning out your meals at the beginning of the day are two methods that can be really helpful.

Experiment with Meal and Workout Timing

Many folks who work out later in the day are able to delay their first meal until 11 or 12. This allows you to get more of your calories in around your workout and in the evenings, when it can be harder to control hunger. If you can't wait until mid-day, sometimes a protein snack in the morning is enough to buy a few hours.

Because of this, it can be helpful to plan to work out in the afternoon/evening if possible. It's not mandatory, and you may have no choice but to work out in the morning. Just know that you will need to eat a majority of your carbs around your workout, and you may not have a lot left for later in the day.

Monitor Your Weight, but Don't Obsess

You'll want to monitor your weight during your PFFL cycle, but only so you can see trends. One helpful trick if you find yourself obsessing about the number is to change your scale to a different unit. If you normally weigh yourself in pounds, switch to kilograms or vice versa. Weight gain/loss probably won't be linear from day-to-day, but you should see trends week-to-week. For many people,

the scale doesn't move for days (or goes up) and then all of a sudden they're down 5 pounds. Keep track, but try not to get too hung up on the number.

Prioritize Sleep

Changes in sleep are all across the board for folks. Sleep often suffers during a caloric deficit, but generally gets better as time goes on and the body adjusts. You may have to work a little harder to make quality sleep a priority by following the suggestions mentioned in the PFFL chapter.

C

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