

EATING TO SUFFER

Using nutrition to get the most out of the high-intensity/low volume training approach

Scene from The Sufferfest's 'Half is Easy' video


THESUFFERFEST

\$9.99 USD

**YOU SHOULD JUST EAT
NAILS. THAT IS WHAT
SUFFERLANDRIANS
DO. IF YOU RUN OUT
OF NAILS, THEN THIS
BOOK IS USEFUL.**

Grunter von Agony
Sufferlandrian Directeur Sportif

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As a Sufferlandrian, you're part of a unique breed. You don't go easy. You don't spin. You don't know the meaning of 'sitting in'. You've never been asked to pull through because you're already on the front. When you venture out of your Torture Chamber and subject mere mortals to the bitter fruits of your determined labour, the only thing they ask for is mercy.

It's thanks, of course, to your formidable strength of character. But it's also thanks to the benefits of the high-intensity/low-volume training approach that's at the core of The Sufferfest videos and training plans. This approach requires that you consistently push your body to the upper level of what it's capable of. To do so, and do so consistently week in and week out, takes tremendous determination and a super-human tolerance for suffering.

And it also takes proper nutrition.

See, you can't put sawdust in the tank of an F1 car and expect it to win the Grand Prix (you can expect a pretty hefty repair bill, though). For the same reason, you can't cram whatever you want into your body and expect to perform to your maximum potential during something as gruelling as a Sufferfest video.

There is plenty of literature available on the subject of nutrition for endurance athletes, so why another one? Because Sufferlandrians are different from other athletes. They don't know the meaning of low or moderate intensity, which is what most nutrition guides focus on. Even the deceptively-named 'Half is Easy' Sufferfest video packs a punch like a heavyweight. These high-intensity sessions mean your muscles must be prepared to produce enormous amounts of energy, and in a hurry.

In fact, the high-intensity/low-volume Sufferfest approach to training requires a very specific approach to nutrition. And if you follow that specific approach, you'll be able to pound out more watts, more consistently. You'll also recover more effectively, and optimise your body's improvements in the hours following your workout to turn every minute you spend in your Bike Torture Chamber into crushing power, unbelievable endurance, and blinding speed out on the road.

But before we proceed - let's make one thing clear: the goal of this book is not to LESSEN the suffering. Even suggesting as much could get you deported to Couchlandria before you could say, "Are you going to eat all that?" The purpose here is to help you properly fuel your body to allow you to work harder, generate more power, and recover more effectively for your Suffering. We call this maximising your "Return on Suffering (RoS)." Eating for Agony, while still catchy, just didn't have the same ring to it.

The Brain's Minion

If you've spent any time in Sufferlandria (you have, right?), you're familiar with the Sufferscale. This is a way of measuring, on a scale of 1 to 10, your 'Rated Perceived Exertion' (RPE), or how hard you're pushing yourself at any given time. To remind you, the Sufferscale looks a bit like this:

- 10 – The Minions cower at the white-hot intensity of your suffering and earth-shattering speed.
- 09 – Damn near a flat-out sprint.
- 7.5 – Anaerobic threshold. Aka 'Hell.'
- 4-6 – Don't worry about these numbers. You won't be seeing much of them where we're going.
- 03 – Active Recovery - those fleeting moments of respite designed only to tell you when one period of suffering ends and the next one begins.
- 01 – Is this lounge chair taken? Oh, a bon-bon and a foot rub?

As a Sufferlandrian, you know very well the feelings associated with the upper levels of the Sufferscale. You probably also know most of the swear words and screams you utter at those intensity levels. But are you really feeling what you're feeling? **Are you - get ready for this - truly Suffering as much as you think you are?**

You see, at the extreme effort levels frequently encountered in a high-intensity/low-volume training program, there are complex physiological processes at work that govern how your brain manipulates your perception of suffering.

For example, the Herculean efforts that characterize a typical Sufferfest workout are of such a high intensity that the body can't get oxygen to the cells quickly enough to produce energy the old-fashioned way (breathing). Cells take matters into their own hands and break down sugars without oxygen to power the muscles. This process creates lactate, which helps bring on the dreaded 'acidosis.' Acidosis occurs when slam-dancing hydrogen ions raise the acidity of your muscles and blood to create that burning sensation Sufferlandrians savour like a fine wine. If your body is working well, then your brain will trigger a perceived exertion in line with the actual effort you're making. However, if your body isn't working as well as it should be (and there could be three main reasons for this, which we look at in a few paragraphs), then your brain will raise that perceived exertion compared to what it might otherwise be for that effort, telling you to back off so you don't damage all those important bits that keep you alive. In this case, you'll feel like you're at 8/10 on the Sufferscale when your body is really only working at 6/10. (So your Return on Suffering is going to be lower than it should be).

To manage all this, the brain is constantly monitoring a vast array of factors in your body. It takes all of this information, compares it against the current workload that you keep increasing because you're a total Badass, determines whether the effort is sustainable, and adjusts RPE and muscle recruitment accordingly. The body is truly the brain's Minion. Except in Couchlandrians. Then both body and brain are the Minions of donuts.

Now, before you start disparaging your brain for trying to hold you back from winning all those Strava KOMs and dropping everyone you're riding with, look at it this way: your brain thinks it's doing you a favour. By making you feel like you're suffering more than you actually are, it prevents you from doing irreparable, permanent damage to your body.

The Three Controllables

Amongst the factors that the brain is monitoring are three in particular that directly affect whether you can hit the effort levels you need to in order to get your maximum Return on Suffering. They are:

- Available carbohydrate stores
- Core body temperature
- Blood acidity (pH)

Unsurprisingly, the high-intensity nature of Sufferfest sessions place all three of these factors under serious attack in a way that more moderate training does not. For example, if your carbohydrate stores are low, by the time you're a few intervals into Fight Club, your body gets desperate and turns to sugars in the blood to keep you nailing those attacks. As these sugars get consumed, the blood sugar level drops, and before you know it you're staring down the barrel of The Bonk - a sudden and debilitating onset of fatigue. The loss of energy can be so extreme that it becomes difficult to even turn the pedals, not to mention put in any significant effort. Once you've started bonking, you'll be suffering without gaining anything - a terrible Return on Suffering if ever there was one.

So, the bad news is that if you don't have those three things under control, then you're going to feel like you're Suffering terribly when, in fact, you're probably not working very hard at all. And if you're not working very hard at all, you're not going to improve very much at all. And if you don't improve, then you're going to get dropped and then you're going to get really moody and nobody is going to want to be around you. And Grunter will probably order you to the flogging station. So it's just not good all around.

The good news is that nutrition can help you control all three of these factors. And when they're properly controlled, you'll be able to:

Hit and sustain true top-end intensities – Maximise your total wattage output today to destroy the competition (and your turbo trainer) tomorrow.

Get the most benefit from recovery – This is when the benefits of BYAT (Beating Your Ass Today) are fully realised. What you do and what you consume in the hours following a Sufferfest workout are as important as the suffering you endure during training. Nutrition has a massive impact on how your body reacts to stresses imposed during visits to Sufferlandria and will help you maximise your RoS.

Improve your power-to-weight ratio – Cyclists routinely spend thousands of dollars in order to shave grams from their equipment and improve their efficiency. If you really want to kick gravity in the guts and dominate the climbs, you need to drop weight where it counts. This nutrition guide will help you soar with the Angels.

Taken together these three aspects will help you not only beat your own ass more effectively, but truly ensure that you will kick THEIR asses tomorrow.

In the following chapters, we'll examine these aspects. We'll delve into the scientific and nutritional basis of our recommendations, then offer practical examples to allow you to put the recommendations to use. Before you know it, you'll be suffering smarter, training harder, and leaving a trail of vanquished opponents in your wake wondering 'what on earth did that Sufferlandrian have for breakfast?'

You're serious about your training. If you weren't you wouldn't even think about chaining yourself to your Torture Chamber day after day and undertaking something as brutal as Violator. But are you as serious about how you fuel your body in preparation for that Suffering?

Earlier, we mentioned three factors that can limit your peak performance (carbohydrate stores, core temperature and blood acidity) if you're not taking care of them. Let's look at what you can do to control those factors so you can truly Suffer as much as possible and get the most out of your high-intensity workouts.



1. Carbohydrates: You need them

The popularity of low-carb or no-carb diets have led many to believe that the carbohydrate is bad news. But few people understand exactly what a carbohydrate is and how essential it is to cellular energy production during high-intensity exercise. Carbs comprise the starches and sugars in the food we eat. Grain-based food (pasta, rice, bread, breakfast cereals) are predominantly carbohydrates, as are starchy vegetables like potatoes, sweet potatoes, corn, and legumes; fruit (fresh, canned, and dried), some dairy products like milk, yoghurt, and ice cream, and many starchy, sugary processed foods.

So what is starch? Essentially, starches are just long chains of sugar molecules strung together. When carbohydrates are broken down, our bodies dismantle the bonds between the sugar molecules so that our cells can use them for fuel. Follow even the most complex of carbohydrates on its magical journey—whether it's that bowl of quinoa you had last night or that sweet potato—and eventually it will be broken down into sugars. Once converted to sugar, it's absorbed across the wall of the small intestine and enters the blood as (wait for it...) blood sugar.

The body is very particular about the level of blood sugar present at any given time. When a deluge of sugar enters the bloodstream, the body has two choices: if you're engaged in strenuous exercise it will use it as a fuel source. If it's not immediately necessary, the body will store it in the muscles and liver to be used later.

We know there are athletes on Paleo or low-carb diets who consider carbohydrates to be anathema to performance, and some cyclists may be able to minimise their carb intake and still perform adequately on the bike. If the majority of your training consists of long, slow miles, you can get away with consuming fewer carbs.

But Sufferfest workouts are, by nature, intense. That's why we don't call it The Sofa-fest. Intense efforts like The Hunted require that the body's carbohydrate stores be adequately stocked as the cargo shelves are going to be raided during those all-out attacks to the finish line. If your cells lack fuel, no amount of flogging by the Minions will allow you to get above the anaerobic threshold to produce lactate—that sweetest of Sufferlandrian nectar. In the end, you won't beat your own ass effectively, and as a result fewer asses may be kicked by you. No one wants that.

Pre-workout Carbohydrate Intake

What you eat prior to a Sufferfest workout depends upon your specific training schedule and the particular flavour of torture you'll be selecting from the Sufferfest menu. Pre-Suffering fuelling comes in two steps:

The day before

The day before a training session you need to store sufficient carbs to meet the demands of the session. The table below will give you an idea as to the carbohydrate intake requirements for all the Sufferfest videos produced to date. The range given is meant to accommodate your particular training goals. If you're aggressively targeting weight loss, use the lower end of the range (Chapter 6 of this guide has additional information on modifying intake for weight loss). If you want to wring every last watt out of your Sufferfest session and give your trainer the almighty flogging it deserves, use the higher end of the range.

Two hours before

About two hours* before your workout, we recommend eating an easy-to-digest meal of familiar foods that are high in carbohydrates and low in fat. This will help to minimise digestive issues that could hamper your performance on the trainer. You should consume 1-2g of carbohydrates for every kilogram of body weight. Using this formula, a 70kg Sufferlandrian would aim to eat between 70-140g of carbs a couple of hours before training. The exact amount will depend upon the intensity and duration of the workout. A longer video like Hell Hath No Fury will require more carbohydrate stores, while a shorter (but still intense) workout like Extra Shot would require less. The table below will help you calculate the appropriate carb intake for each Sufferfest training video. For examples of foods that provide 50g of carbohydrates per serving, see Appendix A.

Workout	Duration	Intensity	Optimal carbohydrate the day before	Optimal pre-workout carbohydrate*
Downward Spiral	61 minutes	9 out of 10	3-6g/kg	1g/kg
Revolver, Half is Easy	45 minutes	11 out of 10	3-6g/kg	1g/kg
Fight Club	60 minutes	9 out of 10	3-6g/kg	1g/kg
Angels, The Rookie	64 minutes	8.5 out of 10	3-6g/kg	1g/kg
The Hunted	61 minutes	8 out of 10	3-6g/kg	1g/kg
Local Hero	85 mins (1hr 25mins)	8 out of 10	5-8g/kg	2g/kg
A Very Dark Place	51 minutes	9 out of 10	3-6g/kg	1g/kg
Hell Hath No Fury	75 mins (1hr 15mins)	8.5 out of 10	5-8g/kg	2g/kg
There is No Try	55 minutes	7.75 out of 10	3-6g/kg	1g/kg
The Wretched	48 minutes	8 out of 10	3-6g/kg	1g/kg
Blender	1hr 40mins	7.5 out of 10	7-10g/kg	2g/kg
Rubber Glove	60 minutes	8 out of 10	3-6g/kg	1g/kg
Violator	68 minutes	10 out of 10	3-6g/kg	1g/kg
It Seemed Like a Good Idea at the Time	1hr 57mins	7.5 out of 10	7-10g/kg	2g/kg

*eat around 2 hours before your workout where possible

Two grams per kg is a lot of food to be eating 2 hours before a workout. Choose compact, easy to digest foods and fluids if you're struggling. If your training schedule has you pounding out a solid hour at 5am and you can't get in a pre-workout meal, don't despair (after all, there will be plenty of time for despair when you're on the bike begging for that sixth interval to end). You can compensate by increasing your carbohydrate intake at dinner the night before. If your workout is later in the day but it's still not possible to sneak in a meal two hours before, make sure you take in adequate carbohydrates during the workout (discussed in chapter 3).

Anyone want a drink?

What's been missing from our discussion so far has been the issue of fluid intake and proper hydration. That's not a coincidence. Because of the relatively short duration (but screaming intensity) of most Sufferfest workouts—at least compared to most road races—hydration is not normally a limiting factor. If you're drinking adequate fluids to maintain normal hydration, there is little point in gorging on water or hydration mixes before even the most punishing Sufferfest sessions (we're looking at you, Blender). Doing so would only make your bladder interrupt your workout every 10 minutes. Not the best way to maintain your heart rate.

How do you know if you're adequately hydrated? The proof is in the peeing. If your urine is pale yellow or clear, you're cleared for takeoff. If it's darker yellow, you need additional fluids before getting on the bike. If it's a pinkish-orange, chances are you went crazy on some beetroot juice (we'll get back to that in Chapter 5). Multivitamins can turn urine day-glo orange or light sabre green (that's your body getting rid of excess vitamins). And if it's red.... we don't mean to freak you out, but you probably should stop reading this and get yourself to a hospital. Like, now.

The colour test does break down when you've had a few down the pub. Alcohol wreaks havoc with the hormones that regulate the kidneys, causing them to open the floodgates and release more water, even if you're dehydrated. That's why your pee is always clear after a few pints, even if you just stepped out of the desert.



2. Core Body Temperature

Ok, we've covered carbs. Now let's look at core body temperature, which is something you can lower by manipulating your pre-workout nutrition. This will allow you to reach higher intensities during the workout and more fully realise the Sufferlandrian potential that is your birthright. It's called pre-cooling, and it will help you descend further into the hell that is a Sufferfest session.

The principle of pre-cooling is pretty straightforward: In the hour just before an intense workout or race (or an event in extreme heat like the Tour Down Under), you drink an ice slushy. The technique was first pioneered by the Australian Institute of Sport (AIS) in the lead-up to the 2008 Olympics in Beijing, with the specific goal of helping Mick Rogers and Cadel Evans get on the podium in the Individual Time Trial. The sports scientists on staff found that drinking roughly 700mL of an ice slushy a half hour before an intense training session effectively lowered the athlete's core body temperature by about 0.6°C compared to drinking cool water. Core body temperature could be further reduced an additional 0.12°C by placing towels that had been dipped in icy water over the legs of the riders. With core temperatures reduced, the athletes then completed a simulation of the ITT course. The results were staggering: athletes showed an average improvement in performance of 1.3%. That's on par with the gains you get from multi-thousand dollar wheel sets, and all for the price of a bag of ice.

Since these initial tests other researchers have duplicated the AIS findings, and it's now not uncommon for team doctors in the pro peloton to break out the slushy machine before particularly hot stages. If your Torture Chamber gets as hot as hell and you want to punish yourself as effectively as possible, pre-cooling could help you suffer longer and smarter, getting your body to the high-intensity effort levels it needs to hit.

If you don't have a convenience store close by (or if the Minions won't let you leave), there are plenty of home appliances on the market that will allow you to make ice slushys or snow cones at home. Alternatively, you can stick a few water bottles in the freezer the night before you punish yourself.



3. Blood acidity (pH)

The last factor that can limit your Return on Suffering is the acidity, or pH of your blood and muscles. As we discussed, anaerobic exercise releases hydrogen ions, which in turn raise the acidity of your blood and trigger the brain to make you feel like you're hurting. This can prevent you from pushing as hard as you're capable of, which is a one-way ticket to ex-communication from Sufferlandria. By using nutritional supplements, you can pre-emptively lower the acidity of your blood and muscles prior to your workout and counteract the nasty by-products of anaerobic exercise. Nutritional scientists call this strategy "buffering", and we'll go more into buffering in Chapter 5. You're not going to be in less Agony, but you'll be able to dig deeper into the bottomless pit that is the Joy of Suffering.

So you think you're ready for a Sufferfest workout? Really? We don't believe it, and Grunter von Agony doesn't either. You may have your trainer, your bike, and your towel to soak up the Sufferlandrian Holy Water, but do you have the right food and fluids at the ready to maximise your Return on Suffering?

Let's look at what you need to take in based on what you're putting out:

Workout Duration: Up to 1 Hour

Have you ever done a criterium at full gas? How about a cyclocross race? These are short, intense efforts, and a workout like Revolver — which simulates the effort of events like these - will get you armed and ready to dominate. If you're focused on these kind of shorter workouts, you probably don't need to agonise over taking on additional carbohydrates during your Sufferfest session to keep your effort levels high for the duration.

But there is one surprising reason for having at least a small amount of carbs in these sessions. We've talked about how savvy the brain is at monitoring the various systems and adjusting RPE accordingly to prevent permanent damage. But as smart as the brain is, it usually holds a little back to be safe. Sufferlandrians don't hold back, they fight back so this is clearly unacceptable.

Take this scenario: you're four intervals deep into A Very Dark Place and you went a little light on the carbs the night before. But your brain is not just monitoring carbohydrate stores, core body temperature, and blood pH, it's also looking ahead and keeping tabs on what nutrients may be available in the near future. Numerous studies have shown that simply signalling to your brain that more carbohydrates are forthcoming is enough to decrease the RPE and allow you to crank out more watts in those last few intervals. As crazy as it sounds, simply swishing a high-carb fluid (like a sports drink) around in your mouth and then spitting it out will convince your brain that more fuel is on the way, causing your brain to lower your RPE. This results in an increase in power of up to 2% if you had a pre-workout snack and up to 4% if you are training on an empty stomach. That brain isn't nearly as clever as it thinks it is.

The swish-and-spit method is by no means mandatory. You get just as much benefit if you actually swallow. We recommend taking small sips of carb-containing drinks every 5-10 minutes during your workout and swirling it around in your mouth for about 10 seconds before swallowing.

Workout Duration: 1-2 Hours

If you think you have the Sufferlandrian chops to tackle Blender (1 hour 40 minutes) or It Seemed Like a Good Idea at the Time (2 hours), you're going to need all the help you can get. Some extra carbs in your bloodstream are going to be crucial, ideally 30g of additional carbohydrates for every hour you're chained to your trainer. What does 30g look like? That's about the same as 600mL of sports drink at the standard dilution (36g), an energy gel (25g), a banana (20g), an energy bar (30-45g depending on the brand), or a cereal bar (20-25g). Those few, fleeting moments of recovery in between punishing efforts are the perfect time to fuel up and get you ready for the next descent into madness. Just have a bucket ready. You know how those intervals sneak up on you right in mid-chew.

Workout	Duration	Intensity	Optimal Carbohydrate During Workout
Downward Spiral	61 minutes	9 out of 10	Small sips of carbohydrate containing fluids every 5-10min. Hold in your mouth for 10 sec then swallow.
Revolver	45 minutes	11 out of 10	Small sips of carbohydrate containing fluids every 5-10min. Hold in your mouth for 10 sec then swallow.
Fight Club	60 minutes	9 out of 10	Small sips of carbohydrate containing fluids every 5-10min. Hold in your mouth for 10 sec then swallow.
Angels, The Rookie	64 minutes	8.5 out of 10	Small sips of carbohydrate containing fluids every 5-10min. Hold in your mouth for 10 sec then swallow.
The Hunted	61 minutes	8 out of 10	Small sips of carbohydrate containing fluids every 5-10min. Hold in your mouth for 10 sec then swallow.
Local Hero	85 mins (1hr 25mins)	8 out of 10	45g of carbs
A Very Dark Place	51 minutes	9 out of 10	Small sips of carbohydrate containing fluids every 5-10min. Hold in your mouth for 10 sec then swallow.
Hell Hath No Fury	75 mins (1hr 15mins)	8.5 out of 10	35g of carbs
There is No Try	55 minutes	7.75 out of 10	Small sips of carbohydrate containing fluids every 5-10min. Hold in your mouth for 10 sec then swallow.
The Wretched	48 minutes	8 out of 10	Small sips of carbohydrate containing fluids every 5-10min. Hold in your mouth for 10 sec then swallow.
Blender	1hr 40mins	7.5 out of 10	50g of carbs
Rubber Glove	60 minutes	8 out of 10	Small sips of carbohydrate containing fluids every 5-10min. Hold in your mouth for 10 sec then swallow.
Violator	68 minutes	10 out of 10	Small sips of carbohydrate containing fluids every 5-10min. Hold in your mouth for 10 sec then swallow.
It Seemed Like a Good Idea at the Time	1hr 57mins	7.5 out of 10	60g of carbs

Sufferfest sessions are brutish, nasty, but usually short (although you do feel like they go on for eternity while you're doing them). Your fluid loss in a 1-2 hour session won't be significant enough to warrant aggressive fluid replacement during the workout itself to maintain effort levels. If you're thirsty, drink; if you're not, don't. It's as simple as that.

You survived...barely. Another Sufferfest session in the books. Time to kick up your feet, crack open a tall one, and watch eight hours of cat videos on the Internet. Right?

Yes on the cat videos, maybe not on the other stuff. Suffering plants the seed of Glory, but recovery makes it grow and flourish. While the Minions rest their uneasy rest, your muscles are still working in the hours immediately following the Suffering, silently converting all of your efforts into strength, speed and pure Badassness. Scientists call it 'Training Adaptation' (we call it 'getting better') and it's very sciency. Let's do some Science:

- Our bodies are made up of billions of proteins. DNA is the blueprint, and amino acids are the building blocks.
- Our muscles are constantly building new proteins and breaking down old ones. This means we need an ongoing supply of fresh building blocks to meet demand.
- The fresh supply of building blocks comes from the proteins in food we eat. When we digest proteins they're broken down into amino acids and absorbed into our bloodstream. Boom: fresh building blocks.
- When we supply fresh building blocks, our body builds more proteins than it's breaking down, so there's a net gain. This process lasts about 6 hours. If you haven't supplied more blocks after 6 hours then you get a net loss of proteins. Most of the time this balance of loss and gain is well balanced.
- After exercise our body is particularly stimulated to build new proteins. The type of proteins built depends on what sort of exercise we do. Scientists call this, "training-specific adaptations."
- After a high-intensity Sufferfest workout your body is primed to build lots of Badassness. Oh, and new proteins in your muscles, making you faster and more powerful. However, if the body doesn't have enough building blocks, it won't have the raw materials to make anything and many of the benefits of your suffering will lie in ruins.

Pro(tein) tip: More isn't Better:

You're a Sufferlandrian, so if some suffering is good, more is better. By that logic, if some protein is good, more is better, right? Not so fast. There is always a sweet spot when the maximum benefit is reached, and more doesn't make things better. In some cases it makes things worse. Take Vitamin C: too little, and you'll get scurvy like a 17th century sailor; too much, and you won't perform as well on the bike. In the case of protein, around 25-30g in one serving (if it's animal protein) is all you need. Any additional protein in the blood won't be used for building, but will instead get diverted to be used as a fuel source. When protein becomes a fuel source, it's at the expense of fat and carbohydrates, which then get stored in the body.



1. Rebuild: Pass the protein — this is a construction zone

You used carbs to power your high-intensity workout, and now you need protein to build the improvements in your body. Indeed, the great cities of Sufferlandria are literally built on protein. But what kinds of protein? How much? And when should it be consumed to have the most benefit? Glad you asked.

- **What** – Protein comes from animal foods (meat, fish, chicken, eggs, milk, yoghurt and cheese) and some plant foods such as legumes (chickpeas, kidney beans, lentils, soybeans, etc.) as well as soy products like tofu and soy milk, and nuts (although in smaller amounts).
- **When** – Every 4-6 hours throughout the day where possible, regardless of whether you've Suffered that day or not (perish the thought). If you have Suffered, the most critical time window is in the first hour after a workout, although this can serve a dual purpose as one of your regular protein servings. There's no need to down a protein shake if you're about to sit down to a steak for dinner. If you're a night owl and stay awake for several hours after dinner, then there may be an advantage to having another hit of protein just before bed. That will allow your body to build proteins while you sleep.
- **How much** – The amount of protein necessary to maximise protein building in your muscles depends upon the source. If it's from animal foods, 20-25g is sufficient. If it's from plant-derived sources, more like 30-40g. Sorry vegans, but the protein in plant foods is less efficient at promoting protein building in the body. That doesn't mean you have to eat meat, you just need to get more protein per meal from plant sources in order to get the same benefit. Examples of what these serves of protein look like are shown in the table below.

Animal Foods that Provide 15-25g Protein

80g (small can) tuna or salmon

80-100g (when raw) lean meat/fish/chicken

50g beef jerky/biltong

4 eggs or egg whites

500mL plain or flavoured milk

½ cup skim milk powder

250g regular yoghurt

½ cup cottage cheese

25g serve low/no carb whey protein powder

1-2 commercial protein bars (check serve size)

Plant Foods that Provide 30-40g Protein

2 ½ cups kidney beans

600g baked beans

2 ½ cups (when cooked) lentils

250g tofu

¾ cup nuts (peanuts, almonds, etc.)

40g soy or pea protein powder

3 ½ cups cooked quinoa

2. Rehydrating

During your time in the Bike Torture Chamber, you've also lost a lot of Sufferlandrian Holy Water. Because of the limited duration of most Sufferfest sessions, the loss won't be enough to compromise your performance in that one-off workout. Much like your carbohydrate stores, your normal diet will replace the fluid you've lost in plenty of time if your next workout is over 24 hours away. But if you're particularly masochistic and you have another one coming up in less than 24 hours, you need to rehydrate.

To estimate how much fluid you need to achieve that, you first need to know how much Holy Water you've lost. The way to do this is by weighing yourself before and after a workout. The vast majority of weight lost will be a function of fluid loss. If you've lost 1kg, that's 1000mL of Holy Water. Remember to calculate for any weight gained from eating and drinking during your workout, or weight lost because you've gone to the bathroom.

Once you have a rough idea of how much fluid you've lost, the aim is to replace 125-150% of that loss within 6 hours. For example, if you lost 1000mL of fluid, drink 1250-1500mL after your workout. This can be any type of fluid – sports drink, milk, water, juice, and so forth. Remember that you can double up – flavoured milk contains protein, carbs and fluid in one package.

3. Refuelling

While protein is all about rebuilding your body, it doesn't do much to prepare you to get stuck in to the PAIN, MISERY and AGONY that comes free with every Sufferfest session. So, after your visit to Sufferlandria, you have to think ahead about how to fuel up for next time. The time until your next beating...er...Sufferfest session will determine how to do this:

- Next workout is within 24 hours: Start refuelling now in order to maximise your carb stores. The exact amount of carb intake is dependent upon the intensity of the workout to follow. The Long Scream tomorrow will require much less than a tomorrow filled with Hell Hath No Fury. Refer to the chart in Chapter 2 for more specific recommendations on intake for particular Sufferfest sessions. If it calls for 5-8g of carbs per kg of rider weight the day before, then you'll need to eat some carbs immediately after your workout to get a head start on the next one. Appendix A outlines examples of foods that will provide sufficient carbs.
- Next workout more than 24 hours away: Don't be too concerned about gobbling down carbs after your workout. Your normal eating (and the guidelines in Chapter 2) will ensure you're fueled and ready to go when you need to be.

When is the next tough workout?	Recommendations for protein post-workout	Recommendations for carbs post-workout	Recommendations for fluid post-workout
Within 24 hours	Within the first hour: 15-25g if animal based, 30-40g if plant based	If the next session is >1hr and intense: Around 100g carbs within 2 hours If the next session is < 1hr or not intense: None required, normal eating will do.	125-150% of estimated fluid losses from the workout
More than 24 hours away	Within the first hour: 15-25g if animal based, 30-40g if plant based	None required, normal eating will do.	None required, normal eating and drinking will do.

A Grand Synthesis of Suffering

Maximising your RoS requires that you manage your intake of the Holy Sufferlandrian Trinity of protein, carbs, and fluids; and adjust your intake to meet the body's demands before, during, and after your Sufferfest session.

The nutrition strategies we've outlined so far will help to optimise your performance during your high-intensity sessions as well as your post-workout adaptation. But one area we haven't touched on are the (TOTALLY LEGAL) pills, potions and powders that may (or may not) have an effect on your performance.

Aside from sports foods like sports drinks, energy gels and protein powders, nutrition supplements can be broken into three basic groups:

- Vitamin and mineral supplements – These are designed to correct a nutritional deficiency, which is much less common than people think. The vast majority of people don't need any form of vitamin or mineral supplement. If you think you might require individualised dietary supplementation, seek professional, medical counsel to make sure that your nutritional needs are being met.
- Complementary medicines – Herbs and other left-of-field supplements are abundant, but lack rigorous, scientific testing to verify their efficacy. That's not to say they're all bogus, but the jury is still out. We won't talk about these here.
- Ergogenic aids – These are supplements designed to enhance performance, recovery, or adaptation. Not all ergogenic aids deliver and, in fact, most don't. Rather than waste time on the smoke and mirrors, this chapter will examine those ergogenic aids that have been shown in research to be beneficial for the durations and intensities you're likely to encounter in Sufferlandria.

No substitute

You'll be pleased, as a Sufferlandrian, to know that there is no substitute for real Suffering. There is no shortcut. Even those ergogenic aids that do work only provide modest performance benefits. If you're happy with your RoS and aren't too obsessed with ringing every last watt out of your legs, feel free to skip this chapter and get back on your trainer.

Ergogenic aids to maximise RoS:

There are four nutrition supplements that may help you maximise your RoS during a high-intensity workout. Now, even with proven supplements the benefits are widely variable so we've quantified the average benefit to give you a sense of how they may improve your training. Always try a new supplement in a controlled environment. Race day is not the time to experiment, lest you incur the wrath of the Gods of Sufferlandria and lava-snow rain down upon you.

It's also important to realise that the benefits from supplements are usually not additive. Caffeine + nitrate does not necessarily equal the benefit from one plus the benefit from the other. An intricate five supplement regime won't get you a World Tour contract via a 15% performance improvement (but riding "The Rookie" just might). It's important then to choose your ergogenic aids carefully, based on your goals, how easy you find it to take them, how well you respond to the supplement and any side effects you may get

1 – Caffeine

You know it. You love it. Most of us can't live without it. Caffeine is the most extensively studied of all of the ergogenic aids. It's also the one that shows the most consistent performance benefits in lab tests. The average benefit seems to be about 2-5%, although individual results may vary. Thankfully, this has nothing to do with how much of a caffeine junkie you are. Regular coffee drinkers don't get any more or less benefit than anyone else. Here's the best part: you don't need to stop taking caffeine the day before to get the benefit.

How does caffeine work to improve performance? We talked about pain and the brain's ability to manipulate Rated Perceived Exertion in Chapter 1. Caffeine works directly on the brain to reduce your perceived exertion for a given effort. That means less pain for the same performance. So you can go harder! Grunter von Agony will be happy to hear that.

The dose to achieve maximum benefit is around 3mg of caffeine for every kilogram of body weight. As an example, a 70kg Sufferlandrian would need 210mg of caffeine to maximise the benefit. Caffeine takes about 1 hour to absorb into the body and achieve peak efficacy, but will still be doing its thing for up to five hours later.

Caffeine comes in a range of products from coffee to energy gels, cola, energy drinks, pre-workout supplements, in tablet, and even gum form in some countries. Essentially it's all the same – the caffeine in a tablet can't be distinguished from a cup of organic coffee. However, some products get you that hit faster. For example, caffeine can be readily absorbed through the roof of your mouth, and chewing caffeinated gum will get caffeine into the system in a scant 30 minutes. The dose is still the same, but you can take it much sooner before your workout and still realise the benefits.

2 – Beetroot Juice (Nitrate)

It looks like blood and is an acquired taste (to say the least), but beetroot juice can increase your RoS. You see, beetroot juice is particularly high in nitrate. In a rather complex process, nitrate is absorbed into the blood, comes back out in your saliva, gets converted into nitrite by the bacteria in your mouth, is re-absorbed as nitrite, then converted to nitric oxide. Nitric oxide then acts on your muscle cells, helping them to produce the same amount of energy with less oxygen required. Got that? MINDS BLOWN! Don't worry, just know that in many cases nitrate makes you faster: about 1-3% faster.

So why not just take nitrate or nitric oxide as a supplement and bypass all this absorption and re-absorption business (not to mention that foul tasting beetroot juice)? Because unless you're really good at taking really tiny doses, nitrate will put you in hospital. Or a coffin. Not recommended.

Beetroot juice comes in a couple of forms in commercial products. It's often mixed with apple juice to improve the flavour, and with these products you typically need around 500ml to realise a benefit, depending on the nitrate content. One company also produces beetroot juice "shots", which are little 70ml vials of concentrated beetroot juice that you can knock back quickly. There are a few other products emerging on the market that include bars with beetroot in them, and powdered beetroot concentrate.

Beware of buying or making your own freshly made beetroot juice – the nitrate content varies enormously depending on where and when the beets were grown, how long they've gone from picking to juicing, and whether the leaves have been included or not. The only way to know how much nitrate you're drinking is to buy a product off the shelf that's been tested and labelled with the value.

The amount of nitrate in a single dose to optimise performance is about 300mg for the average Sufferlandrian. That's one of those 70ml shots, or about 300-500ml of beetroot juice depending on the brand. More elite riders may need a bigger dose to get the same benefits – as much as four shots in one hit, or a 300mg dose every day for five days prior to the all-important session.

3 & 4 – Beta-alanine & Sodium Bicarb

We've talked about how high-intensity exercise releases hydrogen ions that increase the acidity of the blood and effectively limit performance. If you want to flog those ions like an unruly Minion and go harder during those intervals, take a listen to this cunning plan: If you can boost the body's ability to soak up hydrogen ions, you can stabilise the blood's pH and trick your brain into tolerating more extreme intensities. That means more anaerobic watts before you beg for mercy. Sound good? Excellent. Two ergogenic aids help us do that.

1 Beta-alanine: This is an amino acid. In our muscles it combines with another amino acid called L-Histidine to create a peptide called Carnosine. In the same way a Sufferlandrian can neutralise attacks, Carnosine is very effective at neutralising acidity in muscles during anaerobic efforts. Animals with a prodigious anaerobic capacity, like horses and greyhounds, have very high Carnosine levels in their muscles.

The human body is fully capable of producing plenty of Carnosine, provided it has enough L-Histidine and beta-alanine to use as raw materials. L-Histidine is readily available, but beta-alanine is another story. To get sufficient beta-alanine from conventional food sources, the average Sufferlandrian would have to eat several portly turkeys. That's why most athletes choose to take it in capsule or powder form.

Unlike caffeine, beta-alanine needs time to accumulate in the body to realise its potential: something in the order of four to six weeks. The optimal dose is 3-4g a day for at least four weeks. But just like protein, more beta-alanine is not better. If the levels in your blood get too high, you may experience unfortunate side effects. Some people describe a pins and needles sensation, itchy skin, or hot flushes. All the wrong kind of suffering.

We recommend four doses of 800mg in a 24-hour period. Taking it during, or just after, a meal will slow the rate of absorption into the blood and reduce side effects. Slow-release capsules can also help minimise any side effects.

2 Sodium Bicarb: An additional weapon in your quest to maximise RoS. The principle is straightforward: sodium bicarb lowers the acidity of your blood, allowing you to absorb more hydrogen ions and pump out more watts before the acidity level sensors starts sounding alarms in your brain.

Sodium bicarb comes in a couple of forms: you can buy capsules, often branded as Sodibic, or you can go with good old bicarb soda (or baking soda), the same your grandma used in the kitchen. Either way, you want to consume 0.3g for every kilogram of your body weight, around 2-2.5 hours before you plan to unleash maximum fury. For our mythical 70kg Sufferlandrian, we would want 21g of sodium bicarb. That's about five teaspoons of baking soda, or (gulp!) 25 Sodibic capsules. Before you rush down to the supermarket or pharmacy to buy some bicarb, here's a word of warning: large doses of bicarb like this can wreak havoc on your gut. As one former Olympic track cyclist described, "I'd be sitting on the start line not knowing if I was going to break the world record or \$h!t my pants!"

If you don't fancy a violent emptying of the tanks, there is a solution. Pair your bicarb supplementation with at least 300ml of fluid and a meal that contains at least 70g of carbohydrates. Not only will this prevent you from destroying the porcelain, but it will bolster your on-bike performance.

Other Ergogenics

The world is full of hucksters and snake-oil salesmen. Claims are easy to make but hard to prove. Much of what is available on the market and geared towards performance athletes we won't address for two simple reasons: they either don't work or they've never been properly tested.

The foundation is established. You have the knowledge. You know how to maximise your RoS, and you know how to get the maximum adaptation from your suffering. As a true and dedicated Sufferlandrian, you will not only suffer, but you will suffer knowing that your pain is not in vain. Supported by the Sufferlandrian Nutritional Principles, you will be the embodiment of IWBMATTKYT.

Ergogenic Aid	Best Suited For	How to take it	How much to take	When to take it
Caffeine	All types of riding	In coffee, gels, tablets or other supplements	3mg for every kg of your body weight	Around 1 hour before your session
		In caffeinated gum	3mg for every kg of your body weight	30min before your session
Nitrate	Intervals and Time Trial Efforts	Beetroot juice	Enough to get 300mg nitrate (~300-500mL depending on brand). Double that for more elite athletes	2-3 hours before your session, and once/day for 3-5 days before if you're an elite rider
		Beetroot juice "shots"	70mL shot (2 for more elite athletes)	As above
Beta-alanine	Very high intensity efforts (above threshold)	In pure powder or capsule form (normal or slow release formulas)	4 × 800mg doses (will depend on brand and product format)	Every day for 4-8 weeks. Take just after a meal to minimise side effects
Sodium Bicarbonate	Very high intensity efforts (above threshold)	Pure powder (Bicarb Soda)	0.3g for every kg of body weight (1tsp = 4g)	2-2.5 hours before a session, with at least 300mL fluid and a meal containing at least 1g of carbs per kg body weight.
		Sodibic capsules	0.3g for every kg of body weight (1 capsule = 0.84g)	

Sufferlandrians are by definition wattage machines. Pure power gets the job done on the flats, but once things start pointing upwards, power isn't the only relevant factor. Look at any Grand Tour winner. These guys are the embodiment of optimum power to weight ratio. We've covered how to maximise power, now we'll turn our attention to how to reduce weight.

Before we delve into weight loss strategies, there is one word of caution: If you have diabetes, Impaired Glucose Tolerance, or a strong family history of diabetes, then this approach may not be in your best interest. We highly recommend consulting a professional for individualised dietary advice.

There is no single cause of weight gain or obesity. Consequently, there's no single solution for weight loss. Just as supplements should be viewed with caution, be very wary of anyone who makes promises about weight loss, tries to sell you a product/book/diet or tells you they know the secret. If it sounds too good to be true, it probably is. The recommendations in this chapter are not magical, they don't apply to everyone, and they don't necessarily guarantee success. Our approach is based on common sense, and aims to strike a balance between maximising power and reducing excess weight.

Sufferlandrians are faced with a conundrum: how to fuel adequately for the punishment of training, but at the same time restrict calories to lose weight. Many cycle between periods of restrictive eating that help achieve weight loss goals, but result in illness and poor performance. Conversely, consuming enough calories to get you flying on the bike may hamper your weight loss. This is particularly true for Sufferlandrians due to the 'low-volume,' part of our high-intensity/low-volume training approach.

Fear not, Sufferlandrian! These goals need not be at odds, and both can be met. It requires a bit more thought and preparation, but the result is well worth it. Nutritional scientists call the approach, "periodised nutrition", and it shares many features with periodised training. For those not familiar, periodised training is one of the most popular and effective approaches to training. To simplify, periodised training involves modifying the volume, intensity, and frequency of efforts over a given time frame to meet an athlete's specific goals. Periodised nutrition is based upon a similar approach, and consists of modifying when and how much you eat of different nutrients according to your training schedule.

Weight loss is a complex and highly-individualised process, but at its core it's based on a simple principle—the fuel you get from your food (in terms of calories) needs to be less than your body's fuel requirements. This forces the body to use up fuel it has previously stored as body fat and carbohydrates. Periodised nutrition works by matching the fuel you take in to the body's needs, especially around training. Ultimately, the total amount of energy intake from your food (the kilojoules, or calories) needs to be less than what you're producing. But instead of looking at just your daily intake and energy expenditure, periodised nutrition focuses on the net average weight gain or loss over several weeks or months. This means that you can increase or decrease the amount of fuel each day, provided the average over the week meets the target for your individual goals.

We've discussed the various fuel sources in food: protein, fat, carbohydrates, and—if you're hitting the pub—alcohol. We've also mentioned that protein is important not only for recovery and adaptation following training, but also in maintaining muscle. It's important to maintain regular protein intake over the day, regardless of whether you're training or not. This is particularly important when you're trying to lose weight, because it minimises the chance of losing muscle while you melt fat. No fat plus no muscle equals no good, especially if you're a Sufferlandrian.

Alcohol and fat don't have a particular role in exercise performance or muscle maintenance and adaptation. As such, they don't factor into periodised nutrition. That leaves us with carbohydrate, and this is where the main benefits of periodised nutrition will be realised.

Earlier, we pointed out the role of carbohydrate as a fuel source, particularly during high-intensity training. We discussed being well-fuelled for longer, high-intensity sessions by eating more carbohydrate in the hours leading up to a grueling Sufferfest session. To keep the RoS high it's important to fuel up for those sessions, regardless of your weight loss goals.

On the rare days where you aren't destroying yourself and your trainer, your carbohydrate requirements are much less. You can reduce the carb intake significantly, which in turn reduces your total energy intake. Because carbohydrates provide around 50-70% of the total energy intake for the average person, reducing the carbs when you don't need them makes a big difference in your weekly average energy intake.

What does this look like in the real world? The table on the following page outlines how the periodised nutrition approach can be implemented, assuming a week of Sufferfest training and road rides with your unfortunate training partners on the weekends. By leaving the carbs in when the quality of high intensity training is important, and reducing it when the need for carbs isn't there, the total energy intake per day will vary dramatically, but when averaged over the week will still result in a net loss. This maximises the chances of losing weight, while still being adequately fuelled for key training sessions.

Remember that the most important metric for weight loss is lower net energy intake, not just carbohydrates. It's all well and good to reduce the carbs, but unless the total energy is less than your expenditure, you won't be getting leaner. The exact amount of energy you need to successfully lose weight varies greatly according to your body size and composition, genetics, training volumes, and several other factors. A good starting point is to look at your current calorie intake and (assuming your weight is stable) aim to eat an average of about 400-700 calories less a day than your current intake.

Be aware that as your body weight reduces, the amount of energy your body needs to maintain your new physique also gets less. After the initial reduction of calories to kickstart weight loss, you'll need to continue to reduce your calorie intake slightly after every few kilos of weight loss. As a result, the energy you'll need to maintain your newer, slimmer chassis will be significantly less than what it was when you started. Faster, leaner, cheaper to feed: this is a true Sufferlandrian.

Example of periodised carbohydrate around training sessions

Meal	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Training Session	Rest Day	Blender	Revolver	Downward Spiral	Rest Day	Long Road Ride - difficult	Long but easy road ride
Morning Snack Before Training	○	●	●	●	○	●	●
During Training	○	●	●	●	○	●	●
After Training/ Breakfast	●	●	●	●	●	●	●
Mid-Morning	●	●	●	●	●	●	●
Lunch	●	●	●	●	●	●	●
Afternoon Snack	●	●	●	●	●	●	●
Dinner	●	●	●	●	●	●	●
Evening Snack	●	●	●	●	●	●	●

○ No Food ● Least Carbs ● Moderate Carbs ● Most Carbs

That's how you get lean and mean in Sufferlandria: no secret pills, potions or powders, just strategically modifying your fuel intake according to your training schedule and your individual goals. Coupled with the increase in peak watts you'll gain from power-focused videos like A Very Dark Place, a reduction in body mass will send your power to weight ratio through the roof, making you unstoppable not just on the flats, but especially when things start pointing upwards.

We've now covered all things food for before, during and after a Sufferfest workout. We've talked supplements, and we've made adjustments if you're aiming to shed a few kilos. So let's bring it all together, and match up these principles to a training plan.

For many, random Suffering just doesn't feel right. No, you like to plan it out - you want to know what Suffering is coming, when, and how it's going to help you crush others.

If you've taken on one of our 10 week training plans, then you're getting exactly what you need in terms of planned Suffering and the related performance gains. But when, six weeks into the plan, you're in the kitchen immediately after a session because YOU'RE SO FREAKING HUNGRY, are you really stuffing your face with the right nutrition? Do you have a nutrition plan to go with that structured Suffering?

Having read this far, you'll have an idea of the underlying concepts involved in optimising your Return on Suffering. Now it's a matter of putting them together in a way that matches up with the consistent suffering your training plan will be dishing up.

To do this, we're going to use the first week of The Sufferfest's Novice, Intermediate and Advanced road cycling training plans. This is where you'll see all of the concepts come together into an example eating plan that you can use as a starting point for your own.

But, first, Order! Some of the nutritional concepts you've learned so far are more important than others. You need to know this hierarchy so you can prioritise your nutrition choices over the long term and promote the best possible Return on Suffering over a block of training. You'll also encourage optimum health - but that's not nearly as much fun as Suffering lots. The priorities are:

- 1. First, make sure you're getting the right amount of total energy** (kilojoules or calories): No matter what you do, if you're not meeting your weight and body fat goals then you're probably not going to be too happy with your nutrition plan. People can change their weight on any number of different eating patterns, but ultimately all of them only work when the total energy is where it needs to be.
- 2. Then be sure to follow a normal, balanced diet:** Boring but important. Eating for peak performance is one thing, but not if it comes at the expense of other aspects of your health. It's not just about eating carbohydrate and protein in its purest forms, in the right amounts, at the right times. You still need your fruits, vegetables and everything else that makes a balanced diet balanced. Maybe even a little chocolate. Just don't tell GvA.
- 3. That sorted, make sure you are getting your protein in:** As explained in Chapter 4, your muscles are constantly building up and breaking down proteins in the muscle and other organs. This happens 24/7, even when you're not exercising. So let's not mess around with that process. Keep it optimised for success.
- 4. Now focus on your carbohydrate:** Your high-intensity exercise fuel. Hold back on the carbs before or during a Sufferfest session and your Return on Suffering ratio will plummet like the stock market during the great depression. Having said that, it's also not a matter of "lots of carbs all the time", especially if you can't fit them into your total energy budget alongside the protein. Being strategic with your carbs around key training sessions can help optimise performance, whilst keeping the total energy in check.
- 5. And, finally, if you want them, try your ergogenic aids:** The icing on the cake. Not necessary by any means, but products like beetroot juice, caffeine, sodium bicarb and beta-alanine may make your Suffering that little bit more rewarding. Same pain, but a (possible) couple of percent more performance.

Eating for the Novice Plan

The Novice Plan is designed to get new Sufferlandrians into the Suffering (and ass kicking) groove. The workouts are fairly short to begin with, but get progressively longer over the 10 weeks.

The initial weeks of the program shouldn't require large amounts of carbohydrate before or during each training session. They're not long enough to need it, and the sessions out on the road are neither super long nor super intense. Having said that, if you find yourself struggling to get through the sessions then go for the higher end of the recommended ranges per day and consider increasing the carbs before the Sufferfest workouts and during the road workouts.

On the following page is an illustration of how the carbs and protein can be optimised around the training schedule. The protein serves are written onto the plan, and the colour code is used to show where the carbohydrate quantities should be high, medium or low. This is of course conceptual - it doesn't yet show examples of meals or snacks - just where the focus on carbs and protein fit.

This example also makes the assumption that most of these training sessions will occur first thing in the morning. If you're an afternoon kind of Sufferlandrian, check out what changes occur in the example on the Friday. This shows you how moving the training session to the afternoon results in the carbs also being moved later in the day.

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Example protein and carbohydrate based on the first week of The Sufferfest Novice Training Plan

Meal	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Morning Snack Before Training	Sleeping in zzzz...	1g/kg carbs	1g/kg carbs	Sleeping in zzzz...	Sleeping in zzzz...	Sleeping in zzzz...	1g/kg carbs
Training Session	Rest Day	Threshold Booster: Extra Shot	Aerobic Endurance: 55min outdoors	Rest Day	Afternoon Session	Rest Day	Aerobic Endurance: 2hr outdoors
During Training	Cleaning your bike	Sips of carb-containing fluids only	Water only	○	○	○	60g of carbs over the session
After Training/ Breakfast	Protein Serve						
Mid-Morning	●	●	●	●	●	●	●
Lunch	Protein Serve						
Afternoon Snack	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)
Training Session	○	○	○	○	Threshold Booster: The Long Scream	○	○
During Training	○	○	○	○	Sips of carb-containing fluids only	○	○
After Training/ Dinner	Protein Serve						
Evening Snack	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)
Total carbohydrate over the day	3-6g/kg	3-6g/kg	No minimum	No minimum	3-6g/kg	3-6g/kg	No minimum
Key:	Meals	○ No Food	● Least Carbs	● Moderate Carbs	● Most Carbs		
	Training	○ None	● Easy	● Moderate	● Hard		

Before you start adding foods into this template, here's a few considerations to make:

- Remember the hierarchy of priorities – if you find you can't successfully lose weight (or you're gaining weight) with the outline above, start by dropping any excess fat from your diet, then go for the lower end of the carbohydrate ranges, and then take out the evening protein serve if you're eating it.
- On the other hand if you're already very lean and you're struggling to keep weight on, go for the upper end of the carbohydrate ranges. Have more carbs every day for breakfast, add some in at dinner on the Wednesday, Thursday, Friday and Sunday nights, and add some unsaturated fats (think fats from vegetable sources such as avocado, nuts, olive oil, etc.).
- The difference between moderate carb and minimal carb dinners can be made by adding or subtracting grain-based or other starchy foods at these meals. So for the moderate carb dinners go for decent serves of potato, sweet potato or corn, or small-moderate serves of pasta, rice, couscous or quinoa.

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Example eating plan for a 70kg Sufferlandrian (aiming for the lower end of carbohydrate recommendations to achieve weight loss) for the first week of the Sufferfest Novice Training Plan:

Meal	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Morning Snack Before Training	Sleeping in zzzz...	Banana smoothie: 500mL milk, 1 banana, 3 tsp honey	Banana smoothie: 500mL milk, 1 banana, 3 tsp honey	Sleeping in zzzz...	Sleeping in zzzz...	Sleeping in zzzz...	Banana smoothie: 500mL milk, 1 banana, 3 tsp honey
Training Session	Rest Day	Threshold Booster: Extra Shot	Aerobic Endurance: 55min outdoors	Rest Day	Afternoon Session	Rest Day	Aerobic Endurance: 2hr outdoors
During Training	Cleaning your bike	Sips of regular cordial or sports drink (100mL total)	Water only	○	○	○	600mL sports drink PLUS 1 cereal bar
After Training/ Breakfast	3 poached eggs with 3 slices toast PLUS 1 medium latte	1.5 cups cereal flakes with 1 cup milk PLUS 1 medium latte	3 poached eggs with 3 slices toast PLUS 1 medium latte	3 poached eggs with 3 slices toast PLUS 1 medium latte	1.5 cups cereal flakes with 1 cup milk PLUS 1 medium latte	3 poached eggs with 3 slices toast PLUS 1 medium latte	3 poached eggs with 3 slices toast PLUS 1 medium latte
Mid-Morning	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear
Lunch	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each PLUS 500mL fruit juice	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each
Afternoon Snack	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Small tin tuna or salmon with 3 Cruskits	Small tin tuna or salmon with 3 Cruskits	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Small tin tuna or salmon with 3 Cruskits
Training Session	○	○	○	○	Threshold Booster: The Long Scream	○	○
During Training	○	○	○	○	Sips of regular cordial or sports drink (100mL total)	○	○
After Training/ Dinner	150g meat/fish/ chicken, 1 large potato, 2-3 cups vegetables	150g meat/fish/ chicken, 1 cup cooked pasta, 2-3 cups vegetables	150g meat/fish/ chicken, and 2-3 cups vegetables	150g meat/fish/ chicken, and 2-3 cups vegetables	150g meat/fish/ chicken, and 2-3 cups vegetables	150g meat/fish/ chicken 1 large potato 2-3 cups vegetables	150g meat/fish/ chicken, and 2-3 cups vegetables
Evening Snack	200g Greek style yoghurt with a banana	200g Greek style yoghurt with a banana	200g Greek style yoghurt with ¼ cup berries	200g Greek style yoghurt with ¼ cup berries	200g Greek style yoghurt with ¼ cup berries	200g Greek style yoghurt with a banana	200g Greek style yoghurt with ¼ cup berries
Total Energy over the day	2,222kCal	2,570kCal	2,195kCal	1,774kCal	2,133kCal	2,222kCal	2,495kCal
Total Protein over the day	175g	183g	184g	164g	161g	175g	186g
Total Carbohydrate over the day	~225g	~335g	~255g	~135g	~260g	~225g	~270g
Key:	Meals	○ No Food	● Least Carbs	● Moderate Carbs	● Most Carbs		
	Training	○ None	● Easy	● Moderate	● Hard		

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PLAN TO EAT TO SUFFER TO PLAN



Eating for the Intermediate Plan

With the Intermediate plan, the sessions are a little longer and more frequently one day after the next. However we're still not at the stage of needing to go all out with the carbs – moderate amounts will again do fine here. Below is an example based on the first week of the Intermediate Plan.

Meal	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Morning Snack Before Training	Sleeping in zzzz...	1g/kg carbs	1g/kg carbs	1g/kg carbs	Sleeping in zzzz...	Sleeping in zzzz...	1g/kg carbs
Training Session	Rest Day	Climbing Speed: Angels	Tempo Work: 75min outdoors	Climbing Speed: The Hunted	Rest Day	Rest Day	Aerobic Endurance: 2hr outdoors
During Training	Cleaning your bike	Sips of carb-containing fluids only	Sips of carb-containing fluids only	Sips of carb-containing fluids only	○	○	60g of carbs over the session
After Training/ Breakfast	Protein Serve						
Mid-Morning	●	●	●	●	●	●	●
Lunch	Protein Serve						
Afternoon Snack	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)
After Training/ Dinner	Protein Serve						
Evening Snack	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)
Total carbohydrate over the day	3-6g/kg	3-6g/kg	3-6g/kg	No minimum	No minimum	3-6g/kg	No minimum
Key:	Meals	○ No Food	● Least Carbs	● Moderate Carbs	● Most Carbs		
	Training	○ None	● Easy	● Moderate	● Hard		

CHAPTER #7

PLAN TO EAT TO SUFFER TO PLAN



We can also move the food from the Novice Plan example to achieve the desired effect for this plan.

Example eating plan for a 70kg Sufferlandrian (aiming for the lower end of carbohydrate recommendations to achieve weight loss) for the first week of the Sufferfest Intermediate Training Plan:

Meal	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Morning Snack Before Training	Sleeping in zzzz...	Banana smoothie: 500mL milk, 1 banana, 3 tsp honey	Banana smoothie: 500mL milk, 1 banana, 3 tsp honey	Banana smoothie: 500mL milk, 1 banana, 3 tsp honey	Sleeping in zzzz...	Sleeping in zzzz...	Banana smoothie: 500mL milk, 1 banana, 3 tsp honey
Training Session	Rest Day	Climbing Speed: Angels	Tempo Work: 75min outdoors	Climbing Speed: The Hunted	Rest Day	Rest Day	Aerobic Endurance: 2hr outdoors
During Training	Cleaning your bike	Sips of regular cordial or sports drink (100mL total)	Sips of regular cordial or sports drink (100mL total)	Sips of regular cordial or sports drink (100mL total)	Cleaning your bike	○	600mL sports drink PLUS 1 cereal bar
After Training/ Breakfast	3 poached eggs with 3 slices toast PLUS 1 medium latte	1.5 cups cereal flakes with 1 cup milk PLUS 1 medium latte	1.5 cups cereal flakes with 1 cup milk PLUS 1 medium latte	3 poached eggs with 3 slices toast PLUS 1 medium latte	3 poached eggs with 3 slices toast PLUS 1 medium latte	3 poached eggs with 3 slices toast PLUS 1 medium latte	3 poached eggs with 3 slices toast PLUS 1 medium latte
Mid-Morning	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear
Lunch	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each
Afternoon Snack	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Small tin tuna or salmon with 3 Cruskits	Small tin tuna or salmon with 3 Cruskits	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Small tin tuna or salmon with 3 Cruskits
After Training/ Dinner	150g meat/fish/ chicken, 1 large potato, 2-3 cups vegetables	150g meat/fish/ chicken, 1 cup cooked pasta, 2-3 cups vegetables	150g meat/fish/ chicken, 1 cup cooked pasta, 2-3 cups vegetables	150g meat/fish/ chicken, and 2-3 cups vegetables	150g meat/fish/ chicken, and 2-3 cups vegetables	150g meat/fish/ chicken, 1 large potato, 2-3 cups vegetables	150g meat/fish/ chicken, and 2-3 cups vegetables
Evening Snack	200g Greek style yoghurt with a banana	200g Greek style yoghurt with a banana	200g Greek style yoghurt with a banana	200g Greek style yoghurt with ¼ cup berries	200g Greek style yoghurt with ¼ cup berries	200g Greek style yoghurt with a banana	200g Greek style yoghurt with ¼ cup berries
Total Energy over the day	2,222kCal	2,570kCal	2,570kCal	2,228kCal	1,774kCal	2,222kCal	2,495kCal
Total Protein over the day	175g	183g	183g	184g	163g	175g	186g
Total Carbohydrate over the day	~225g	~335g	~335g	~215g	~135g	~225g	~270g
Key:	Meals	○ No Food	● Least Carbs	● Moderate Carbs	● Most Carbs		
	Training	○ None	● Easy	● Moderate	● Hard		

CHAPTER #7

PLAN TO EAT TO SUFFER TO PLAN



Eating for the Advanced Plan

Now things are getting full on. Six days a week of training with distinct peaks and troughs between the easiest and hardest sessions. Aside from at least three characteristic Sufferlandrian high-intensity sessions each week, there are some longer sessions in here too. So let's take a look at the first week of this plan, and how the concepts from the first two plans translate across. The good news - time to really smash some food!

Example of the use of protein and carbohydrate based around the first week of the Sufferfest Advanced Training Plan:

Meal	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Morning Snack Before Training	Nothing required	1g/kg carbs	1g/kg carbs	Sleeping in zzzz...	1g/kg carbs	2g/kg carbs	1g/kg carbs
Training Session	Easy Ride: 1hr outdoors	Threshold Development: 2hrs Outdoors	Climbing Speed: Angels	Rest Day	Maximum Intensity Booster: Downward Spiral	Threshold Endurance: 3hr outdoors	Time Trial Booster: The Long Scream
During Training	Water only	60g of carbs over the session	Sips of carb-containing fluids only	Cleaning your bike	Sips of carb-containing fluids only	120g carbs over the session	Sips of carb-containing fluids only
After Training/ Breakfast	Protein Serve						
Mid-Morning	●	●	●	●	●	●	●
Lunch	Protein Serve						
Afternoon Snack	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)	Protein Serve (only if >6hrs from lunch to dinner)
After Training/ Dinner	Protein Serve						
Evening Snack	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)	Protein Serve (only if >3hrs from dinner to bed)
Total carbohydrate over the day	3-6g/kg	3-6g/kg	No minimum	3-6g/kg	5-8g/kg	5-8g/kg	No minimum
Key:	Meals	○ No Food	● Least Carbs	● Moderate Carbs	● Most Carbs		
	Training	○ None	● Easy	● Moderate	● Hard		

CHAPTER #7

PLAN TO EAT TO SUFFER TO PLAN



We can also move the food from the Intermediate Plan example to achieve the desired effect for this plan.

Example eating plan for a 70kg Sufferlandrian (aiming for the lower end of carbohydrate recommendations to achieve weight loss) for the first week of the Sufferfest Advanced Training Plan.

Meal	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Morning Snack Before Training	Nothing required	Banana smoothie: 500mL milk, 1 banana, 3 tsp honey	Banana smoothie: 500mL milk, 1 banana, 3 tsp honey	Sleeping in zzzz...	Banana smoothie: 500mL milk, 1 banana, 3 tsp honey	Banana smoothie PLUS 2 sl. toast with jam or honey PLUS 1 medium latte w/ 1 tsp sugar	Banana smoothie: 500mL milk, 1 banana, 3 tsp honey
Training Session	Easy Ride: 1hr outdoors	Threshold Development: 2hrs Outdoors	Climbing Speed: Angels	Rest Day	Maximum Intensity Booster: Downward Spiral	Threshold Endurance: 3hr outdoors	Time Trial Booster: The Long Scream
During Training	Water only	600mL sports drink PLUS 1 cereal bar	Sips of regular cordial or sports drink (100mL total)	Cleaning your bike	Sips of regular cordial or sports drink (100mL total)	600mL sports drink PLUS 1 cereal bar PLUS 2 energy gels	Sips of regular cordial or sports drink (100mL total)
After Training/ Breakfast	3 poached eggs with 3 slices toast PLUS 1 medium latte	1.5 cups cereal flakes with 1 cup milk PLUS 1 medium latte	3 poached eggs with 3 slices toast PLUS 1 medium latte	3 poached eggs with 3 slices toast PLUS 1 medium latte	1.5 cups cereal flakes with 1 cup milk PLUS 1 medium latte	1.5 cups cereal flakes with 1 cup milk PLUS 1 medium latte	3 poached eggs with 3 slices toast PLUS 1 medium latte
Mid-Morning	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear	1 apple or pear
Lunch	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each	2 sandwiches with 40g meat/ fish plus salad in each
Afternoon Snack	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Small tin tuna or salmon with 3 Cruskits	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Banana smoothie: 400mL milk, 3 Tb yoghurt, 1 banana	Small tin tuna or salmon with 3 Cruskits
After Training/ Dinner	150g meat/fish/ chicken, 1 large potato, 2-3 cups vegetables	150g meat/fish/ chicken, 1 cup cooked pasta, 2-3 cups vegetables	150g meat/fish/ chicken, and 2-3 cups vegetables	150g meat/fish/ chicken, 1 cup cooked pasta, 2-3 cups vegetables	150g meat/fish/ chicken, 2 cups cooked pasta, 1-2 cups vegetables	150g meat/fish/ chicken 1 large potato 2-3 cups vegetables	150g meat/fish/ chicken, and 2-3 cups vegetables
Evening Snack	200g Greek style yoghurt with a banana	200g Greek style yoghurt with a banana	200g Greek style yoghurt with ¼ cup berries	~200g Greek style yoghurt with a banana	200g Greek style yoghurt with a banana	200g Greek style yoghurt with a banana	200g Greek style yoghurt with ¼ cup berries
Total Energy over the day	2,222kCal	2,835kCal	2,228kCal	2,197kCal	2,876kCal	3,483kCal	2,222kCal
Total Protein over the day	175g	185g	184g	171g	191g	202g	184g
Total Carbohydrate over the day	~225g	~385g	~215g	~225g	~395g	~520g	~215g
Key:	Meals	No Food	Least Carbs	Moderate Carbs	Most Carbs		
	Training	None	Easy	Moderate	Hard		

Summing up the plans

You may have noticed a pattern across all of these plans when you look at the summary figures below each day. Notice how the carbohydrate varies by more than twofold according to the training schedule. Yet the protein remains remarkably constant, with a range of less than 30 grams per day. This is the key to achieving a periodised nutrition plan to match the demands of your training program. Now get out there and eat to plan, suffer to plan, eat some more, then suffer some more. And after 10 weeks of eating and suffering you'll be ready to show the world what's become of your legs.

Throughout this nutrition guide we've covered everything from preparation to recovery, how to manage your fluid intake, how to prepare for those extra-grueling Sufferfest sessions, and how to balance performance and weight loss goals. But there's one final goal that many Sufferlandrians aspire to. It is the pinnacle of excellence in Sufferlandria, the Holy Grail. It is the true definition of honour, glory and victory. Humble Sufferlandrian, prepare thyself. This is the ultimate challenge. You are about to attempt the impossible: Sufferlandrian Knighthood.

This is it: prolonged suffering like you've never experienced before. To become an honoured Knight of Sufferlandria you must complete a Herculean undertaking: 10 back-to-back Sufferfest videos. If you've been preparing for your day of Glory you probably haven't set foot outside your Torture Chamber for several weeks (lest you incur the wrath of the Minions). The previous chapters have armed you with the knowledge to maximise your RoS on a daily basis. But nothing we've discussed can prepare you for 10+ hours of relentless, high-intensity self-destruction courtesy of a Sufferlandrian Knighthood attempt. Until now.

Eating for Honour, Glory and a Knight's Bike Decal

Your nutritional preparation for a Knighthood attempt should start 24 hours before you enter the Bike Torture Chamber. As we've already stated when discussing carbs, the aim here is to store enough in your muscles to maximise your performance during the workout. A Knighthood attempt requires MAXIMUM storage, also known as carbohydrate loading.

Carbohydrate loading sounds simple in theory, but in the context of preparing for a Knighthood attempt it seems like a form of suffering in and of itself. We're talking 10g of carbs per kilogram of body weight in a single day, to be precise. If you're a 70kg Sufferlandrian, you're staring down the barrel of 700g of carbs from sunrise to sunset. Think about this:

- 2 cups of cooked pasta = 70g of carbs
- 2 cups of oats = 110g
- 1 slice of bread = 10-15g

Your goal is 700 grams (possibly more if you're a stockier rider). This is a huge pile of food. But fear not. If you're not blessed with an expandable stomach there are three little tricks you can use to get the carbs in:

- 1. Drink your carbs:** Make sure every bit of fluid you drink contains ample carbohydrates. Consuming plain old water takes up precious stomach space without fueling your muscles. Remember that carbohydrates are the starch and sugar in food. With fluids you're looking for sugary options: sports drinks, soft drink, fruit juice, cordial and flavoured milk. Before you suggest that Sufferlandria has a connection to the soft drink industry, remember this: Sufferlandrians are legally prohibited from associating with anything soft. Anything. But if you're going for a Knighthood attempt you need fuel, and that means sugars.
- 2. Avoid fibre:** Starchy foods provide plenty of carbs, but they can also provide lots of fibre. That's useful when you're trying to eat less, but the problem with fibre when you're carb loading is that it makes you feel full without providing fuel. That's the last thing you want when you're trying to steel your mind and body for one of the most grueling athletic undertakings in human history. The day before a Knighthood attempt is a day to eat low fibre foods. This means white bread, white rice, and low fibre breakfast cereals. Because you're eating more food than normal, you'll still consume a normal amount of fibre over the day, it will just be spread over a larger quantity of lower-fibre foods.

- 3. Seek purity:** If all else fails and you're still struggling to cram more carbs into your stomach, go for foods that are almost pure carbs. This means a trip to the sweet shop: 10 jelly snakes (an Australian gummy sweet) provide about the same carbs as 1 ½ cups of cooked pasta, while being significantly less filling (allowing you to store more carbs).

Appendix A gives you examples of foods that contain 50g of carbohydrates per serving. Go crazy until you get enough to max out your muscles' carbohydrate stores. Only then will you be primed for Glory.

A final note on carbohydrate loading: never carb load the day before a Knighthood attempt if you don't have experience with loading. Although uncommon, some people experience major gut issues when they try to carb load. This may be caused by minor food intolerances that become magnified when you eat larger quantities and different types of food. The last thing you want to do is ruin your Knighthood attempt because your carb loading went sideways. So be sure to trial a new carb loading strategy the day before a less-important training session to make sure the strategy will work for you. If you try several times and just can't get it to work, seek individualised dietary advice from a licensed professional.

The Last Supper

The last meal before your Knighthood attempt should be no different from any other long workout – aim for a meal with at least 2g of carbs for every kilogram of your body weight about two hours before you start your Knighthood attempt. If you're starting your Knighthood early in the morning, it might be a challenge to get this in, so chose high carb fluids or reduce to what's achievable.



Eating through pain

Once you're committed to your Knighthood attempt, you'll be in the saddle for the (very) long haul - a bare minimum of 10.5 hours. With an effort this inhuman (but very Sufferlandrian) it's all about the carb intake. Unlike a single Sufferfest workout you'll need a continuous supply of carbs to replace the prodigious amount of energy you'll be expending.

Local Hero plus Revolver plus eight more Sufferfest sessions back-to-back? Your body won't want to speak to you for a couple of weeks. Your ass will likely go into a coma. But, at a minimum, aim to consume 60g of carbs every hour. If you can physically tolerate it go for 90g every hour. This will help maximise your RoS, ensuring that you can stay strong - and Suffer properly - for the duration of the effort and eventually join the few, the proud, the Knights of Sufferlandria.

In general, you'll need ample carbs (60-90g/hr) in a convenient package to allow easy in-flight refueling. These should be in forms that are familiar and easy to digest. You should have a variety of flavours on hand to prevent flavour fatigue, and you should test your fueling strategy beforehand to minimise adverse reactions. Here are a few tips to help you make sure your nutrition does its part for Honour:

- **Plan ahead:** Have everything you need accessible, open and ready to eat without having to get off your trainer and go foraging for food.
- **Practice:** Practice carb loading well in advance of your Knighthood attempt. There is no honour, no victory, and definitely no glory in debilitating digestive issues. It's one thing to suffer on the trainer; it's quite another to suffer on the toilet. And time on the throne isn't going to get you that cool Knights Decal and worldwide acclaim and envy.
- **Be creative:** 90g an hour of carbohydrates is pretty easy for two or three hours in a row, but by the time you get to hour seven you'll be done with all the sticky, sweet tasting stuff like power gels and energy bars. Mix it up with foods that are less sweet, and incorporate savoury options. One of the best collections of recipes we've found are The Feedzone Portables (www.feedzonecookbook.com/portables). For those Sufferlandrians who prefer to DIY, you can make your own sports drink from scratch, make homemade energy gels, or other energy-rich foods to fuel your efforts. If you need additional tips, our friends at Cycling Tips have this to say (www.cyclingtips.com.au/2013/05/diy-sports-nutrition).
- **Use the rest periods:** Eating during a long road ride is fairly easy, because there's inevitably a time when the pace is low. High-intensity intervals are a different story. It's very difficult to chew and swallow anything when you're trying to beat the hell out of the guys on screen during a Sufferfest workout. Look to those precious, elusive rest periods to get something in your body and prepare yourself for the next beating. Practise consuming different foods in training so you know what will suit you best when you strap yourself in for the ultimate challenge. Learn what's practical for you to open, bite, chew and swallow mid-workout. Nothing is more embarrassing than a Knighthood attempt spoiled by choking on an energy bar or an explosive digestive episode. Grunter von Agony has stripped many would-be Knights of their Sufferlandrian citizenship for less serious breaches of Stylish Suffering Etiquette.



It's gettin' hot in here

A Knighthood attempt will also generate significant body heat. The Minions will need troughs to collect all the Sufferlandrian Holy Water you'll be producing. Because a Knighthood attempt has you suffering for so long, proper hydration will be critical.

We've already looked at the basic rule of fluid replacement for an average Sufferlandrian (as if there is such as animal). Because most Sufferfest sessions are focused on high-intensity, short duration efforts, the approach is: if you're thirsty, drink; if you're not, you're adequately hydrated.

What changes during a Knighthood attempt is not the strategy, but the total amount of fluid you'll need to consume from start to finish. You still need to listen to your body, but you should have adequate fluids on hand and Minions to keep your bottles cold in a fridge and pull them out when you need them. If you're short on Minions, freeze a few bottles the night before and let them thaw out as you ride - by hour six or seven they'll be beautifully cold and just what you wanted.

One of the best strategies for minimising fluid loss during a Knighthood attempt has nothing to do with fluid intake. You have to get some air. Before you attempt the holiest of holies, buy, beg, or steal a decent pedestal fan. Place the fan a couple of meters in front of your trainer, and crank it up to 'Sharknado'. The movement of air over your body not only simulates real-world riding conditions, but enhances the body's natural cooling systems. Because of the lack of airflow, riding on a trainer results in higher core body temperatures and more fluid loss compared to riding on the road.

Remember that your fluid intake shouldn't consist of just water. For a Knighthood attempt it should also be a source of carbohydrates. Sports drinks typically contain about 6-8 grams of carbs for every 100mL. You can kill two birds with one stone by using carbohydrate rich drinks during your attempt to properly hydrate while simultaneously providing your muscles with the carbs they desperately need to complete 10-12 hours of otherworldly suffering.



Honour, Glory, a nifty decal and other people calling you Sir or Dame

You've accomplished the unthinkable. 10 Sufferfest workouts, back-to-back. An eternity of abject, debilitating suffering. When the Minions finally pry your spent, victorious body from your trainer and you take your rightful place as a Knight of Sufferlandria, there is one more task: What should a newly appointed Knight of Sufferlandria eat in order to properly recover after 10+ hours of pain, misery and suffering?

WHATEVER YOU DAMN WELL PLEASE. Have a pint. Maybe some chips. Take a couple of days off training (don't tell GvA). Let's face it, few people in Sufferlandria, much less the world, have the fortitude to successfully complete 10 Sufferfest videos in one go. Punch a rhino. Give Jens Voigt a wedgie. You can do whatever you want. The End...Of This Interval.

A Knighthood attempt is a big challenge. It requires a lot of preparation, both physically and nutritionally. You'll need an unholy amount of carbs to fuel the fire, not to mention determination, dedication, and a commitment to the Sufferlandrian principles of IWBMATTKYT. Work hard, then celebrate hard. Honour, Glory, Victory.

APPENDIX A

50G CARBOHYDRATE SERVES

Adapted from Peak Performance: training and nutritional strategies for sport J. Hawley and L. Burke. Sydney: Allen & Unwin, 1998.

NB. 1 cup = 250mL, 1 tsp = 5mL, 1 Tbsp = 20mL

Cereal

Wheat biscuit cereal (e.g. Weet Bix)	60g (5 biscuits)
'Light' breakfast cereal (e.g. Cornflakes)	60 g (2 cups)
'Muesli' flake breakfast cereal	65 g (1-1.5 cups)
Toasted muesli	90 g (1 cup)
Porridge - made with milk	350 g (1.3 cups)
Porridge - made with water	550 g (2.5 cups)
Rolled oats	90 g (1 cup)
Bread	100 g (4 slices white or 3 thick wholegrain)
Bread rolls	110 g (1 large or 2 medium)
Pita and lebanese bread	100 g (2 pita)
Chapati	150 g (2.5)
English muffin	120 g (2 full muffins)
Crumpet	2.5
Muesli bar	2.5
Rice cakes	6 thick or 10 thin
Crispbreads and dry biscuits	6 large or 15 small
Fruit filled biscuits	5
Plain sweet biscuits	8-10
Cream filled/chocolate biscuits	6
Cakestyle muffin	115 g (1 large or 2 medium)
Pancakes	150 g (2 medium)
Scones	125 g (3 medium)
Iced fruit bun	105 g (1.5)
Croissant	149 g (1.5 large or 2 medium)
Rice, boiled	180g (1 cup)
Pasta or noodles, boiled	200 g (1.3 cups)
Canned spaghetti	440 g (large can)

Fruit (Cont'd)

Medium fruit (orange, apple etc.)	3-4
Small fruit (nectarine, apricot etc.)	12
Grapes	350 g (2 cups)
Melon	1,000 g (6 cups)
Strawberries	1,800 g (12 cups)
Sultanas and raisins	70 g (4 Tbsp)
Dried apricots	115 g (22 halves)

Vegetables

Potatoes	350 g (1 very large or 3 medium)
Sweet potato	350 g (2.5 cups)
Corn	300 g (1.2 cups creamed corn or 2 cobs)
Green Beans	1,800 g (14 cups)
Baked beans	440 g (1 large can)
Lentils	400 g (2 cups)
Soy beans and kidney beans	400 g (2 cups)
Tomato puree	1 litre (4 cups)
Pumpkin and peas	700 g (5 cups)

Dairy Products

Milk	1 litre
Flavoured milk	560 ml
Custard	300 g (1.3 cup or half 600 g carton)
'Diet' yoghurt and natural yoghurt	800 g (4 individual tubs)
Flavoured non-fat yoghurt	350 g (2 individual tubs)
Icecream	250 g (10 Tbsp)
Fromage frais	400 g (2 tubs)
Rice pudding/creamed rice	300 g (1.5 cups)

APPENDIX A

50G CARBOHYDRATE SERVES

Fruit

Fruit crumble	1 cup
Fruit packed in heavy syrup	280 g (1.3 cups)
Fruit stewed/canned in light syrup	520 g (2 cups)

Sugars and Confectionery

Sugar	50 g
Jam	3 Tbsp
Syrups	4 Tbsp
Honey	3 Tbsp
Chocolate	80 g
Mars Bar and other 50-60 g bars	1.5 bars
Jubes and jelly babies	60 g

Drinks

Fruit juice - unsweetened	600 ml
Fruit juice - sweetened	500 ml
Cordial	800 ml
Soft drinks and flavored mineral water	500 ml
Fruit smoothie	250-300 ml

Mixed Dishes

Pizza	200 g (medium -1/4 thick or 1/3 thin)
Hamburgers	1.3 Big Macs
Lasagne	400 g serve
Fried rice	200 g (1.3 cups)

Sports Foods

Sports drink	700 ml
Carbohydrate loader supplement	250 ml
Liquid meal supplement	250-300 ml
Sports bar	1-1.5 bars
Sports gels	2 sachets
Glucose polymer powder (Maltodextrin)	60 g

Alan McCubbin is an SDA Advanced Sports Dietitian and the current President of Sports Dietitians Australia. He's the founder of Next Level Nutrition, an online sports nutrition consultancy, and lectures in sports nutrition at Monash University in Melbourne, Australia.

Alan has worked with a variety of clients from beginners to summer and winter Olympians. He writes for the CyclingTips website, and consults to elite cycling teams in Australia. Alan competes in endurance mountain biking and rides his road bike (both in his Sufferlandrian Bike Torture Chamber and out on the road) when he finds time. He'll occasionally eat a bowl of nails before taking on Revolver.

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