



# Training Fundamentals

## Our philosophy

The key to effective training is consistency and accumulating quality training volume. Consistency in training is essential but can often be the hardest thing to achieve as life inevitably complicates matters. The goal is to ensure your training is manageable and in balance with the rest of your lifestyle i.e. a part of your routine.

A high percentage of people quit the gym or give up on their training programmes after the first month. Typically, this is because they get over-excited and go too hard too quickly. They tend to make too many changes to their diet and exercise routine etc. so that this new approach is not sustainable. A more measured approach of slowly increasing frequency and volume of training, alongside incremental changes to their diet is likely to have a much higher chance of success.

Therefore, my approach to coaching is to take the time at the beginning of the season to plan how any changes are to be made rather than trying to implement everything all at once. If a graduation to change is part of a plan, it makes it far less scary and far less likely to conjure feelings of guilt and failure if it's not an instant success. It's all part of the plan!

Your approach to training should be about trying to achieve balance. That is balance within your training programme between intensity, volume and recovery but also balance between training and life's other demands. Needless to say, this approach involves looking to the long-term and not individual sessions and I encourage all my athletes to adopt a more holistic view of their training.

## Training structure

Approaching your training in a focused way with a pre-ordained structure is an important element to any training plan. Firstly, if you approach each session knowing what you are doing it will be a more productive session. Secondly, if the framework of a session becomes habitual, you will save yourself some time; as opposed to faffing around at the beginning of a session thinking of something to do.

### Warm-up

Every session should begin with a warm-up. For a strength and conditioning session, this could be 5-10 mins of cardio just working at a 3-4/10 effort (See RPE Scale below) building up the speed and effort. For a cardio specific session, I would generally increase this to 10-15 mins. The warm-up should then be followed by 5-10 mins of dynamic stretches.

The purpose of dynamic stretches is to gradually introduce warmth to the working muscles without demanding too much of them whilst they lack elasticity. Dynamic stretches continue to warm and increase the range of movement of muscles without hyperextending them. Performing static stretches before or during exercise is not recommended as it can harm power output and leave you feeling a little flat.

I cannot stress enough how important a good warm-up is in terms of injury prevention and general performance. Try to see it as one of the three key components of a session rather than something to be rushed through. It is genuinely just as important as the focus of a session. It also helps to break a session up, making it less of a mental struggle if you are not highly motivated to begin with.

### Types of session focus

Each session should have a clear focus and your plan should include a variety of types of session rather than a focus purely on endurance. The focus could be speed work during a cardio session, a power focus in a strength and conditioning session; or even an emphasis on active recovery on a day-off.

Having an obvious goal for each session helps massively with motivation and more importantly, will help you achieve your goals more quickly.

### The RPE Scale

RPE stands for Rate of Perceived Exertion. Put simply, it is a way of gauging your efforts so that you can follow a session focus more clearly. For instance, a warm-up should build from a super easy effort (1-2/10) to an effort where you can still talk but you are beginning to get a blow on (3-4/10). The table below sets out how the RPE Scale breaks down and how it should be interpreted.

Training Zone	Rate of Perceived Effort	Interpretation of the RPE Scale
<b>Zone 1</b>	1-2/10	Easy effort - can hold a conversation
<b>Zone 2</b>	3-4/10	Still able to talk but breathing quite heavily
<b>Zone 3</b>	5-6/10	Struggle to talk and working pretty hard
<b>Zone 4 (Threshold)</b>	7-8/10	Unable to talk and at or just before the edge of going anaerobic
<b>Zone 5 (Above threshold)</b>	9-10/10	Very hard, speed work and sprints

The RPE scale is a perfectly good alternative to other more scientific metrics such as run pace or heart rate zones. So, if you don't have a special sports watch or heart rate monitor, you can achieve the session goals perfectly well by listening to your body and performing the essence of the session according to the scale above.

#### Speed & Power sessions

Speed and power sessions are typically shorter sessions packed with high intensity efforts. They are working above threshold (9-10/10) and look to improve your top end speed and explosive power.

A 12 x 400m track running session with 75-90 seconds recovery is a good example of a speed session.

Plyometric work in the gym such as box jumps or explosive movements such as barbell cleans are examples of a power exercises.

#### Threshold sessions

'Threshold' is a reference to your lactate threshold, which is the point your body switches from working predominantly aerobically to predominantly anaerobically. It is the point you start to accumulate lactate in your blood and as there is no longer enough oxygen to buffer the build-up of hydrogen ions so you begin to feel the painful fatigue sensation of a prolonged 7-8/10 effort.

In running, threshold sessions are often called 'tempo' sessions and it essentially means longer intervals than a speed session working at around a 7-8/10 effort. The aim being to work at or slightly above your lactate threshold to progressively elevate that threshold, so you can work harder for longer.

Examples of threshold sessions would be cycling for 3 x 15 minutes at 7-8/10 with 5 minutes easy spinning in between; or 4 x 7 minutes running at 7-8/10 effort with 2 minutes walking recovery.

#### Strength Endurance sessions

Strength endurance sessions are an important early season focus as they are when you build inherent strength and good form.

For running this means plenty of hill repetitions, low rpm big gear work on the bike and low load high rep exercises in the gym.

The aim is to build strength whilst holding good form.

#### Endurance sessions

These are otherwise known as your 'base' mileage. These are Zone 2 (3-4/10) efforts sustained for prolonged periods.

Endurance sessions are important as they train your body to utilise fat more efficiently as an energy source, build cardiovascular fitness and give you the confidence you can complete the distance of your intended event.

However, it is important you don't focus solely on endurance work and include sessions with the focuses described above as part of your overall training plan. Otherwise, you will get really good at training at a single pace but not effective in a race situation.

### Cool down & static stretches

The cool down is the third **key** element of a structured session. A cool down does not need to take long, it can be as short as 3-5 mins. It is important to bring the heart rate down slowly and try to prevent blood pooling in your lower limbs, which can cause light headedness and even fainting.

Once the heart rate has been brought slowly back down, it is wise to always perform some static stretches of the main muscle groups used during the session. There is a bit of a debate about just how significant the recovery benefits of static stretches are. One thing that is certainly true however, is that releasing tension from muscles after a tough session is important for injury prevention. I would also aver that it also assists with motivation for the next session. Feeling stiff and sore from the previous session when you are approaching the next can be the final straw resulting in a missed session and a lack of consistency.

## Nutrition

Eating well and consistently well is just as important as the exercise side of things. However, once again, I would encourage a balanced attitude towards this element. If you are on a 12-week shred for a cover shoot, then you might eat nothing but steamed broccoli, grilled chicken and brown rice. However, if you have a full-time job, training and a social life, sustaining such a lean diet is unlikely to be sustainable.

There are several ways you can try to bring in a bit more consistency when it comes to your nutrition. Below are a few points you might wish to consider:

### 1. Ensure your training sessions are properly fuelled

Try to think of your nutrition as consisting of two equally key elements. There is eating healthily generally and then there is ensuring you have enough energy when required to complete a tough session. If you don't have fuel to burn, your session will be flat, lethargic and unsustainable long-term.

Some people swear by training fasted but for an endurance athlete, there should always be one eye on the next session. For an athlete where performance matters, there is a need to ensure that glycogen supplies (glucose stored in your muscles) are sufficient for a productive session. Eating a small portion of complex carbohydrates with a bit of protein about 2-3 hours before your next session will help to make sure you have something in your muscles to burn.

Sometimes planning 2-3 hours ahead isn't always possible and so if you find yourself within an hour of your session and you haven't eaten in a while, I would suggest still consuming at least something small that is easily digestible. An energy bar or perhaps some sports drink such as Lucozade just to have something to fuel the session. This is perfectly acceptable and will not make you put on weight!

Preparing in this way is actually an important strategy for those looking to keep the weight off as it will help prevent bingeing after a session.

### 2. Snacking

It might seem counterintuitive but in certain circumstances, you need to eat to lose or maintain weight. Ensuring a small negative energy balance (consuming slightly fewer calories than you burn) is one aspect of losing weight. However, to put it simply, your body is less efficient at burning body fat for fuel if your blood glucose and insulin levels are fluctuating wildly.

This is where ensuring you consume complex carbohydrates comes in (whole-wheat pasta, wholemeal bread, brown rice etc.). Additionally, ensuring you snack between meals helps to keep your blood glucose levels steady rather than relying on big calorie rich meals that cause insulin levels to spike and then blood glucose levels to bomb as glucose is pushed into adipose tissue (fat cells).

Ideally, between each main meal you should snack on a combination of lean protein and complex carbohydrates with a portion of fruit or veg. A couple of examples of such snacks are as follows:

- Overnight oats with your favourite toppings;
- Greek yoghurt with a sprinkle of muesli;
- Peanut butter (or almond butter which generally contains less saturated fat and more protein) on wholemeal toast;
- A small sandwich with some lean meat or fish on wholemeal bread; and
- Wholemeal pitta bread filled with cottage cheese.

### 3. Eating a healthy diet

Never an easy thing to do consistently. However, something I would encourage is not to think of each meal as a little battle to eat the right thing but rather to think more broadly about how you eat say, over a week. One 'bad' meal doesn't throw you off the tracks. Your body effectively lags in terms of what you eat being reflected in your weight, energy levels or general well-being anyway.

Consequently, I would encourage you not to feel guilty or annoyed with yourself because you ate something you think you should not have and certainly don't 'punish' yourself by skipping the next meal or over-doing it with your next training session. We always want to work in the medium to long-term. One meal won't matter in the scheme of things.

Having said that, there are ways to take a bit more control over when you want to eat something 'naughty':

- **Having a cheat meal(s)** – planning ahead to have one or even two meals over the course of the week where you eat whatever you want is a good way to keep you consistent and motivated. For instance, you might like eating out on a Friday night, going for a curry or a burger. Having this planned in advance helps with the guilt but also helps keep you disciplined in terms of not over-reacting when you have your next session. It is already part of the plan!
- **Don't make too many big changes** – making drastic changes to your diet, such as cutting out certain food types is a big mistake. If you would like to cut down on fatty foods or sugary drinks for instance, it is best to phase them out. If a can of coke is part of your daily routine for example, suddenly cutting it out will see you crave it even more. My advice would be to start perhaps either pouring it into a glass so you drink half the can and phase it out that way or perhaps having it every other day and reducing frequency from there. These are just examples, you may not even drink coke or may not want to rid yourself of its sweet nectar! The point is, change too much and it will not be sustainable, take a longer-term approach.
- **Hit your bases** – by this I mean making sure each of your meals covers three simple food types (macronutrients). You want a bit of lean protein to assist with muscle repair; some complex carbohydrates to give you energy over a longer period and to help regulate your blood sugar levels; and lots of fruit and veg. Even when you go out for a meal, just trying to hit those targets in terms of your menu choice alongside trying to pick something that isn't obviously high in saturated fat could be a small victory.
- **Saturated fat** - this is the enemy, not carbs. Again, over time trying to cut the amount of saturated fat in your diet is always a good idea. This isn't to say cut it out completely as let's face it, that would mean cutting out all the good stuff! However, I would recommend starting to read the labels on products when you go to the supermarket. If you generally buy the same items each time, this means you only really need to do

it once and you will have a good idea of how much saturated fat or salt etc. is in your diet.

#### 4. **Energy balance v Athletic starvation**

Energy balance essentially means you burn roughly the same number of calories as you consume. Throw this balance drastically out either way and you will potentially put weight on. If you are looking to lose body fat, a **small** calorific deficit will see you lose weight if you are also training consistently. By small, we are talking between 100-200 calories in terms of a negative energy balance.

Counterintuitively, if you slash your calorie intake and continue to train hard, this can see you put on weight. The reason for this is because your body will revert to an athletic starvation state. Consequently, when you do eat a calorie rich meal, your body will think it's time to hoard and will store some of the consumed calories as body fat in preparation for the next starvation cycle. On top of this, a significant negative energy balance can have quite serious effects in terms of your energy levels, mood and even your reproductive cycle. In short, **eating less does not necessarily equate to losing weight.**

#### 5. **Carbs**

Carbohydrates in general are proportionally higher in calories than most other food types and therefore, can contribute a significant percentage to a person's daily calorie intake. However, this does not make them the enemy!

As explained above, you need energy to function and energy to train consistently. It is true that when it comes to obtaining a slight negative energy balance, the easiest place to look is to cut down on carbs. Nonetheless, this does not mean cutting carbs out entirely. Particularly if your intake is already low, it might even be an idea to increase your carb intake because you could be too far under your energy requirements.

The point is, first let's assess your daily energy requirements i.e. what your rough calorie intake should be and then decide whether you need to reduce your calorific intake.

Another point of warning is that if you dump carbs entirely, you might be missing out on important vitamins and minerals that would otherwise be easily obtainable were you to have a certain amount of specific carbohydrates in your diet. Complex carbohydrates tend to be a good source of fibre and assist with rehydration.

#### 6. **Recovery**

Recovery means different things to different people. For some it means feet up and nap time. For others, an easy cycle after a hard session to prevent blood pooling and assist with the recycling of blood lactate.

Regardless, there are some simple points that need to be understood:

- a. **Recovery is seriously important** – training like a beast will see diminishing returns if your body is not allowed to rest and supercompensate. Likewise, a lack of recovery can contribute to athletic starvation if you do not allow enough time for calories to be taken on and digested.
- b. **Recovery means food as well as rest** – if you have a regular training regime and you want to remain consistent to keep the body fat off, it is important that you are ready

for each successive session. Therefore, you will need to repair your muscles and replenish your glycogen (muscle glucose) stores as quickly as possible to be primed for the next effort. In this sense then, recovery means consuming a high protein snack with some carbohydrates as soon as possible after training. The recovery snack should then be followed up after an hour or so with a decent high protein meal with some complex carbohydrates and lots of fruit and/or veg.

- c. **Recovery snacks** – there are a multitude of options e.g. protein shakes, flavoured milk or maybe one of the snacks suggested above in para. 2.
- d. **Protein shakes** – these should be considered for convenience only. Protein shakes have their place but lack nutrient diversity/density and are not regulated. If convenience is not your primary concern, it might be better to go for an alternative protein source to ensure you obtain a spectrum of nutrients rather than just those for muscle synthesis. I'm a big fan of chocolate milk after a long training ride.
- e. **Rest** – allowing your body enough rest to enable it to adapt to the training stimulus is incredibly important. When training becomes obsessive and not enough rest is planned for, the athlete is sure to eventually suffer overtraining, which can result in chronic fatigue, mood swings, injury and/or poor performances. Ensuring you have rest planned takes the guilt out of it. It is part of the plan and it is when you will make your 'gains'.