



fullpotential 



Trekking Training Manual 2017

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Welcome to Your Training

Thanks for signing up to take part in your Event Challenge and to raise valuable funds for the **British Heart Foundation**.

We are Full Potential, the official coaching partner for the **British Heart Foundation**. We're here to support your exercise and training so you can be in the best shape when you take part in your upcoming challenge experience. We want to take away the stress of training, so you can focus on what's important, raising funds for your fantastic charity.

The aim of this trekking training manual is to cover your key training needs. We hope that after spending a bit of time reading through it, you'll have a good understanding about your trek and what's required to ensure you're in the best shape to enjoy your Challenge as much as possible.

There's a lot of key content within this guide so we suggest you look at it in stages and keep referring to it as you go progress during your training.

If you have any questions after reading this training manual, please get in touch at any time. We're here to help so just drop us a line at:

debbie@fullpotential.co.uk

We look forward to working with you and sharing your journey.

Good luck with your training and please keep in touch!

Debbie & the FP Team

Full Potential Coaching

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Our Coaching Philosophy

Full Potential has many years' experience advising and coaching participants of all levels, experience and ability across a huge range of races, events and endurance challenges. Our aim is to help you be in the best shape possible to take part in and enjoy your event challenge.

Our coaching philosophy is based on Full Potential founder, Keith Anderson's, many years of being an elite athlete, which culminated in his running a 2.17 marathon, which he ran at the age of 40 in Boston. Keith was coached by a top physiologist using heart rate zones and blood lactate levels, he trained with many of the world's elite marathon runners in Kenya, France and the USA and he had the opportunity of discussing coaching methods with World Class athletes and coaches alike.

As a company, we have coached thousands of people over the last 15 years, helping them reach their full potential in whatever event, race or challenge they are taking part in by providing sound training advice that fits in with their life and goals.

Trekking is a tough endurance challenge, so you must train, whatever your current fitness level. Although walking is something you may do every day and 8-miles+ per day may not seem a great distance, when you are on your trek, the pace will be slower due to the terrain and prevailing conditions. You'll be spending on average between 5-8 hours a day on your feet. The right preparation is key. It will aid your enjoyment of the trip, whilst ensuring that your body is ready for the rigours of the challenge.

How Do You Train?

Training is a very simple concept. You progressively increase your body's ability to do more and more, little by little, giving it time to adapt, recover and to come back stronger.

The trick is to train properly and to do it gradually, to ensure that you build up a good level of fitness, strength and endurance before you set off. You will need to get used to spending prolonged periods of time on your feet. This will toughen up your feet so they are used to your walking boots or shoes. Time on your feet will also increase your resilience to the aches and pains you might experience during your trek whilst developing the mind-set required to cope with the challenge. You should follow a structured training programme, ideally starting now and leading up to your challenge.

Within your preparation, you should include aerobic conditioning, strength training, walking and recovery. Working on a sound nutrition and hydration strategy for training and on the trek, will make a big difference to your performance too.

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Remember, training is all about consistency and patience. Think about the bigger picture and tick as many boxes as possible in your plan each week, not just a few good sessions or long walks. Trekking well demands time and preparation!

If you think you have a better plan, need harder training or want to walk further or faster, we're only too happy to discuss the training that we have set for you and the physiological benefits of any element. In fact, we encourage you to understand and take responsibility for your training.

We're here to help you train smart, stay injury free and be ready and in your best shape for a great and enjoyable challenge!

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Measuring Your Effort

It's important that you exercise at the right effort level and intensity to ensure you're training to reach your full potential. Most of us think that "harder is better" so we end up exercising too hard, which can result in fatigue, illness or injury. Understanding what each exercise session is trying to achieve and how it should feel is the way to train smart, so here's our guide to the sessions in your plan and a note of how they should feel as a 'Talk Test'

TYPE OF SESSION	PERCEIVED EFFORT LEVEL	HEART RATE	HOW IT SHOULD FEEL – "THE TALK TEST"
Recovery	(1-10)* 6-6.5	65-70%	You can speak in complete sentences, totally conversational, you're relaxed and enjoying the session
Easy	6.5-7	65-70%	You're in control and very much at a conversational level but you'll feel slightly flushed with a gradual build-up of muscular fatigue
Steady	7-8	70-80%	You can speak in short sentences but have a slight pause on your breath. This can often be 'no man's land' in training terms if this is all you do
Threshold	8-8.5	80-85%	You could speak 4-5 words if somebody asked you a question. Your breathing is more laboured and you know you're working, we call this 'controlled discomfort'
Hard	9-9.5	90-92%	You can say only 2-3 words maximum and are out of breath but still know that you could do more if you had to

*Perceived effort = where 1 is easy and represents minimum effort and 10 is hard and represents maximum effort

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Training Principles

At the beginning of any training programme it's always a good idea to establish your current fitness, objectives and goals. These should be realistic and achievable, but challenging. Aiming too high, will set you up for a failure, which could dent your enthusiasm for the challenge. It's equally important not to overdo it and injure yourself. Review your objectives every couple of weeks to ensure you are still pushing yourself and adjust your programme where necessary.

Start your training programme as far in advance of your challenge as possible. We recommend a lead-time of at least 16-weeks prior to your challenge, but obviously, this is not always possible so do your best to start as soon as you can. This will allow you time to build up your fitness level gradually, thereby reducing the risk of injury. Here are a few tips for how you can fit in your training:

- Get up an hour earlier for a brisk walk before work – or even consider walking to work, where possible.
- If you commute to work, get off the bus or train a couple of stops early and finish your journey by walking.
- Walk or exercise during lunch breaks.
- Take the stairs instead of the lift – and stick at it.
- Cross training exercise such as swimming, squash, badminton, cycling is great for improving your fitness level.
- Walk as much as possible in 'real' hiking conditions over routes that are like your challenge, being sure to wear the kit, boots and rucksack that you'll be using for your challenge.

How fast should I walk?

Walking speed will depend on your level of fitness and walking experience. Difficult terrain, weather conditions or travelling uphill and downhill also affects your overall speed. Assuming a level and firm pathway some general guidelines can be given below.

For a person with excellent fitness, an approximate moderate walking pace:

- 15 minutes per mile (4 miles per hour)
- 9 minutes per kilometre (6.4 kilometres per hour)

A fast walking pace or speed is:

- 12 minutes per mile (5 miles per hour)
- 7.5 minutes per kilometre (8 kilometres per hour)

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An average walking pace over country and forestry footpaths is:

- 20 minutes per mile (3 miles per hour)
- 12 minutes per kilometre (5 kilometres per hour)

A walking pace over hilly over road or mountainous terrain can be;

- 30 minutes per mile (2 miles per hour)
- 18 - 19 minutes per kilometre (3.2 kilometres per hour)

Should I still go walking if I feel ill?

If your symptoms are above the neck (e.g., a head cold with runny nose, tired eyes or sneezing) then a gentle walk without elevating the heart rate too much can be beneficial. If your symptoms are below the neck (e.g., swollen glands and aching body) then it's advisable to refrain from exercise until the symptoms have subsided. If you are unsure please seek advice from your GP.

How does walking compare with running?

General health and fitness is improved by walking, but to maximise the cardiovascular benefit it's necessary to raise the heart rate by walking at speed or uphill. Running will generate a greater increase in fitness and with the training sessions usually taking less time. However, running does place more stress on the body and therefore walkers generally suffer fewer injury problems.

Can I walk with my friend who is much slower?

It is sometimes more enjoyable to walk with a friend. If they walk at a slower speed than you, an option is to select a route that has the possibility of short detours. You can then occasionally part company with the faster walker detouring away on a slightly longer loop before joining up again. If contemplating this option, ensure you have very clear and concise instructions about where you will join up.

Do not underestimate the importance of training before your challenge. Even if you are active and exercise regularly, it's good to adapt your training towards your chosen challenge activity. This is vital in building strength, cardiovascular stamina and muscle endurance for the challenge ahead

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Understanding Key Sessions

There's a lot of different terminology used in training plans, however we want you to make sure you understand each session noted in our plans, so when you get out to exercise you know exactly what you should be aiming to achieve.

Warming Up

When you're going to do any faster exercise (e.g. exercise at a Threshold effort), it's important to warm up gradually. A 10-15-minute walk/brisk walk or easy effort cross training warm up allows your muscles to gradually warm up, improve their range of movement and allows your cardiovascular system to prepare itself for the harder work to be carried out.

Cooling Down

A period of at least 10-15 minutes easy walking or cross training exercise and light stretching allows your body to adjust back to a steady state. Cooling down stops blood pooling in your legs and helps remove some of the waste products from the muscle cells, which helps to avoid undue muscle soreness.

Recovery / Easy Effort Exercise

Training for any endurance event requires your body to work hard but to see improvement, this must be done without you getting ill or injured. You therefore need some easy effort exercise sessions and these should be done at a very easy, relaxed effort where you are breathing easily and can hold a conversation throughout.

Your effort level should be at around 6-6.5 out of 10 (60-65% max heart rate) and your exercise should be no more than 45 minutes in duration. This allows your body to adapt to your training and improve.

Steady Effort Exercise

Steady effort exercise is carried out at a perceived effort level of 7.5-8 out of 10 (75-80% max heart rate) and is where you are exercising at a level of some discomfort. A lot of people do most of their exercise at this effort level because they feel they are working but it is not focused enough to be of real benefit and nor easy enough to be recovery. We do however sometimes use this level of training when trying to develop your training towards Threshold effort or increasing general workload.

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Threshold Effort Exercise

This is where you are exercising at an effort level of between 8-8.5 out of 10 and where you're able to speak 4-5 words if someone asked you a question while you were exercising - so you're exercising hard but not so hard that you've nothing left. Try to think of this as an effort level that is 'controlled discomfort!' This type of session improves your general fitness efficiency and economy. You may not get it right first time round but keep trying and after a few weeks or so, you'll notice a huge difference. Not only will your easy exercise feel easier and faster, but you'll be finding the threshold sessions themselves more manageable too.

Long Walks

Including a long walk each week is an important as we head towards your challenge but try not to get obsessed with it. At first, your aim should simply be to concentrate on increasing the time you spend on your feet rather than worrying about the pace or distance. At the outset, the key is to be walking at a conversational pace that is at a perceived effort level of 6.5-7 out of 10 (65-70% of range of your maximum heart rate). This may be a very easy or brisk walk, depending on your current fitness and level of experience, but you shouldn't worry if you need to stop at intervals. These long walks improve your muscular endurance, efficiency and your body's ability to burn fat as its primary fuel source.

You can do include walking at the same effort for the whole duration in your plan or include blocks of brisk walking followed by blocks of easy effort walking or do smaller blocks of each and include some stops to get your breath back before you set off again. Each of us is different and it's important to follow a method that works for you. Stopping isn't cheating; you need to ensure you're training at the right level for you and what feels right.

Cross-Training

The goal of cross training is to improve your overall fitness, cardio-vascular fitness and general body strength. It's important to remember that when you exercise, your heart doesn't know what form of exercise you're doing; whether you're cycling, swimming, walking or skipping, the heart muscle reacts the same way. In that respect, cross training is perfect, it's great fun and it keeps you fit.

There are many different forms of cross training, depending on what you enjoy doing and what access to a gym or equipment you have:

- Cross trainer/elliptical machine, rower, gym bike or outdoor cycling, swimming or aqua jogging, gym classes or home DVD exercise, Yoga, Pilates ...the list goes on!

Cross training reduces the impact on your joints whilst allowing you to improve your fitness.



Strength and Conditioning

Your challenge event will require your body to be strong. Strength and conditioning work doesn't have to take a lot of time each week. You should do it regularly to ensure that your body is conditioned to handle the stress of the trekking that you will be doing both in training and during your challenge. We suggest that you try to do 1 or 2 sessions of conditioning work each week, with each session taking 20-minutes or more.

Our muscles, joints, tendons and ligaments are all moving as we exercise so it's important to choose dynamic exercises over static ones. We need to train our muscles to be stronger for longer during movement.

Here's a very basic and short conditioning circuit for you to follow. It's designed to make you stronger and better conditioned. It's very important that you take your time when doing these exercises and concentrate on achieving proper form.

Home Conditioning Circuit

1. Calf Raises

Stand on the edge of a step. Raise your heel until you are on your tiptoes, and then slowly lower yourself down past the bottom of the step. Work up to performing x30 on each leg. Start with doing raises on 2 legs and then progress to one leg.



2. Front support with hip extensions

Get into a kneeling position on your hands and knees (picture 1). Lift your right leg out behind you (picture 2). Hold this position for a count of 5 and then lower. Really work on keeping the spine long, staying stable and squeeze your glutes as you lift the leg. Aim to perform to perform 2-3 sets of 10 repetitions on each side



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3. Tick Tock Plank

Get in a high plank position with wrists positioned below shoulders, spine straight.
 B. With core engaged, jump right foot out to side, keeping hips and shoulders squared to mat.
 C. Quickly jump right foot back to starting position while simultaneously jumping left foot out to side. Continue, alternating sides.
 Sets: 2-3 Reps: 10-12



4. Single-Leg Bend and Extend





- A. Lie on mat, knees bent and feet flat on ground about 12 inches from hips. With arms down out sides, engage core and lift hips, coming into a glute bridge.
- B. Maintaining a neutral spine with hips lifted, pick right foot up and align right knee over right hip, keeping right leg bent.
- C. Push through right heel and extend right leg fully, keeping knees aligned.
- D. Reverse movement, bending right knee before lowering right foot and then hips to ground. Do all reps before switching sides and repeating.

Sets: 2-3. Reps: 12-15

Furthermore, check out the link below containing some strength and conditioning exercises that you can do easily at home. These will compliment your trekking, helping to keep you injury free, whilst building up your trunk and upper body strength.

https://www.youtube.com/watch?v=0c4GN2Xw_JI&feature=youtu.be

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Rest and Recovery – How You Get Better

Recovery is probably the most forgotten about and underrated training principles. After training, you'll naturally feel fatigued. A period of recovery is required to allow the body to repair muscle damage, which occurs naturally after training, as well as helping to improve performance. This is how you get better!

To help your body cope with the training workload, rest is as important a part of your training schedule as general exercise. Listen to your body and take heed of any warning signs. If you feel fatigued even before step out of the front door, find yourself thinking up excuses not to exercise or start suffering a series of minor injuries, then you probably need more time off from training.

Taking enough rest allows physical and mental recovery and gives your body the time to adapt to your training and important point to remember, on rest days, that's exactly what you should be doing!

What can you do to maximise your recovery?

After each exercise session or walk, especially after a long walk or harder cross training session, you should have a good recovery protocol that you aim to follow as closely as possible.

Here are our top tips for recovery:

1. Sleep is king; make sure you're getting a good number of hours each night
2. Have a well-balanced and timely nutrition & hydration strategy
3. Have an effective warm up and cool down
4. Have a regular sports massage or include some self-massage but always include some good stretching and foam roller exercises each week
5. Maintain flexibility

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Stretching and Foam Rolling

The ideal time to stretch is after you have completed your exercise or walk as this is the time when your muscle, which have worked hard can be flexed into a relaxed collection of muscle fibres. These stretches should be held for around 20-30-seconds and what you're trying to achieve is to return the muscles to a pre-exercise state.

Glute stretch

Sit on the floor with both legs straight out in front of you. Take one leg and take it across your other leg, bringing your knee to your chest and hug.

Hamstring – Lying down

Place a band around your upper leg (or undo shoelaces). Draw your upper leg towards the body until a stretch is felt behind it. To change the stretch into the belly of the hamstring, gently bend your knee. You can do this stretch seated if you don't have somewhere dry to stretch.

Calf stretch – gastrocnemius

Adopt a split stance in front of a wall with both feet facing forward. Drive forward through the hips. Keep your heels down throughout the stretch

Calf stretch – Soleus

Adopt a split stance in front of a wall with both knees bent. Place your hands on the wall at shoulder height with your head upright and looking forward Drop your bodyweight down to lever the posterior (rear) ankle into increased dorsiflexion

Stretching to Increase Mobility

If you want to see increased levels of flexibility, you need to do some 'TV stretching'! This involves holding each stretch for 30-seconds and returning to that stretch two or even three times. If possible, have a bath or warm shower beforehand and your body will be in better shape to stretch. A warmer muscle is a much suppler one. Here are our key stretches:

Hip flexor stretch

Kneel on the floor. Keeping the trunk upright push the hips forward to feel a stretch through your hip flexor.

Quadriceps stretch

Flex the leg you want to stretch at the knee but keep both knees together. Using your arm on the same side as the leg you want to stretch, gently hold your leg at the ankle area lower limb. Draw your leg towards your buttock. This can be done standing but you can get better control lying down.

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Foam Roller Exercises

A foam roller can be an invaluable part of your injury prevention routine. It's great as a warm-up tool but also helps to break down knots, increase blood flow and release muscle tightness.

Here are some key exercises you can do. You should aim to spend a good couple of minutes on each exercise (don't forget to stretch both legs!) but for some, you may want to spend a bit longer, especially if you find a sore point. Try and do some foam rolling at least once a week, but if you have sore points then consider doing it a bit more regularly

Calves

Place the roller under your calf and rest your other foot on the floor. Roll from the ankle to just below the knee. Rotate the leg around to get to the inside and outside of the calf. Stack the ankles to add more pressure.



Hamstrings

Place the roller under your thighs and roll from the knee to the buttocks. Increase the pressure by just doing one leg at a time. Rotate the leg as you roll to get all the muscles in your hamstring



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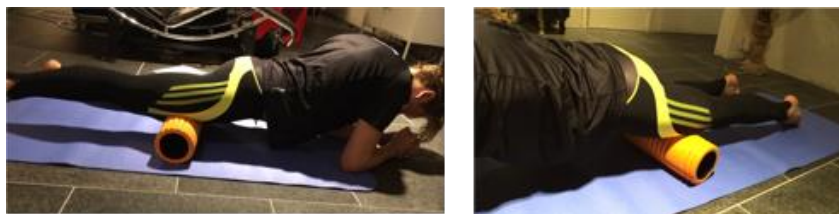
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Quadriceps

Lie on your stomach with a roller placed under the front of your thigh muscles. Slowly roll up and down from the bottom of your hip to the top of your thigh.



Adductors

Lie on your stomach with one leg slightly extended to the side, knee bent. Place the roller in the groin area of the extended leg and roll the inner thigh.



Middle Back

Lie on your back on the foam roller. Cross your arms across the front of your chest and exhale deeply as you roll the middle of your back against the roller.



Which foam roller? Foam rollers cost anywhere from £10 to £40. The Grid is our preferred choice because it is the most versatile and comprehensive foam roller around, very sturdy and easy to travel with, but just buy whichever fits your price bracket.

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Nutrition

Good nutrition can help make a difference to your energy levels whilst you are training / taking part in your challenge.

Choosing the right foods will give you sufficient energy to fuel your body during exercise, as well as helping it grow and repair.

Eating a healthy, balanced diet will help you maintain a strong heart and get you fit and ready for your challenge. Looking for healthy recipes, or want to know how to measure healthy portions? Purchase a healthy cook book or a diet plate in check out the BHF online nutrition area. Or if you have a smartphone, download the BHF healthy recipes app.

Carbohydrates

Carbohydrate foods are the most important source of energy when exercising. The best types to provide you with sustained energy are those which release their energy slowly, such as:

- Wholegrain
- Breads
- Cereals
- Rice
- Pasta
- Beans
- Sweet potatoes
- Fruit and vegetables

You should include these carbohydrates in each meal as they help to keep your muscle energy (glycogen) levels topped up. Three to four hours before a long walk, you should choose meals which have good amounts of these slow releasing carbohydrates, some protein and be low in fat. Good examples include:

- Stir fry chicken and noodles
- Meat or fish pasta with a sauce (not cheese)
- Pita with meat/fish and salad filling
- Lean meat, chicken or fish with vegetables and sweet potato

Avoid choosing carbohydrates that are made with simple sugars and refined flours such as white bread and cereals, biscuits and cakes, as they will give you short term energy which won't be there when you need it at the beginning of a training session. These types of carbohydrates are useful during activities longer than 90 minutes. Their quicker release of energy can help to spare your muscle glycogen and keep you going longer.

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Protein

Protein is not used as an energy source for exercise, but it is needed to help repair and grow muscle that is broken down during exercise. Although your protein requirements will be slightly higher when you exercise regularly, most people already eat more protein than they require. There shouldn't be a need to increase your protein portion sizes or rely on special high protein diets or protein supplements.

The best way to ensure you are getting enough protein for muscle repair and growth is by choosing meals that includes good amounts of carbohydrate, which will be used for energy and a good mix of protein choices. Go for lean cuts of meat and try to have one to two portions of fish a week. Low fat dairy, beans, pulses and lentils are also good choices.

Portion Advice

- Palms = Protein. Aim for 1-2 palm sized portions of fish, meats, pulses or tofu at main meals.
- Up to two thumbs of fats per meal. Healthy fats include nuts, seeds, olives and olive oil, butter and avocado.
- $\frac{1}{2}$ fist of whole grains, beans and legumes. 1 fist after particularly hard sessions. Examples include; chickpeas, beans, lentils, quinoa, corn, millet, barley, oats, wild and brown rice.
- Fist = Fruit or Vegetables.
 - o Green vegetables 1 portion = 2 fists
 - o Starchy vegetables 1 portion = $\frac{1}{2}$ fist



*Image credit Precision Nutrition

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Rest and Easy Days

- Focus on vegetable intake at each meal
- Limit carbohydrate/whole grain portions to ½ a fist at each meal
- Healthy fat intake at each meal should be 2 thumbs at each meal
- Increase protein portions to 2 palms at each meal

Long Walk Days

- Focus on wholegrain carbohydrates after training
- Small but regular protein intake is essential to maximise recovery
- Try to hydrate during the day
- If you're going to enjoy a treat then today's the day! Focus on small manageable portions, rather than a big indulgence

Threshold / Higher Intensity Sessions

- Try to include 1-2 portions of healthy fats as part of your recovery from this session.
- Start the session well fuelled and feeling energized. A light meal or some fruit and a light snack would be ideal about 2-hours before.
- Listen to your body in these sessions. You may not feel the need to drink, other days you may feel thirsty - little and often during this type of workout works well.

Meal timings

Choosing the right carbohydrates at the right time will help you start your training and exercise with a full tank. Food eaten before exercise is only useful once it has been digested. Eat based on when you plan to exercise e.g. if you plan to train at noon, then get in some carbohydrates between 8-9 am.

Balancing lifestyle, meal times and exercise

The Early Riser - If you're a person who can't eat before early morning exercise, then the emphasis is on ensuring you have a good meal containing carbohydrate and protein and snack the evening before. Your breakfast afterwards is very important too: porridge, cereals, toast with fruit juice, also try and get some protein in by including a yogurt, some nuts, peanut butter or dairy.

Lunch Time Exercise - You must eat after your exercise, but you're on the clock. Be prepared, use the previous night's leftovers, which you can microwave and eat at your desk or have a desk sandwich, fruit and yoghurt or fruit smoothie.

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After the office - if you can't sit down to your evening meal within an hour of your exercise then graze on fruit, crackers, bread, and an individual cheese to tide you over until a healthy dinner. This means you will be less likely to snack on something like chocolate/sausage rolls/croissant/pastry to take the edge off any hunger pangs.

Night-time Exercise - Finding good recovery-window foods after late-night exercise will involve some experimentation. Try eating half of your dinner before and the other half after or have ½ - 1 cup of cereal and milk afterwards. This is a time where a recovery drink may be the easiest solution. The key is to end up not starving at dinnertime or after the run, as this can easily lead to overeating.

Refuel

Our body can only store around 90 minutes' worth of glycogen (muscle energy) so if you are exercising longer than this – i.e. on your long walk days, you'll need to refuel or you may 'hit the wall' by running out of energy.

The goal is to maintain a steady supply of carbohydrate. You need to have available some carbohydrate food, as well as fluid, whilst you are exercising. Choose carbohydrate foods that release their energy quickly. As a rule, have something bite sized every 30-minutes. Examples of carbohydrates that are good to use include:

- Two fig rolls
- Half a banana
- Half a tea cake
- 500ml isotonic sports drink
- 30g or a handful of dried fruit
- Half an energy or cereal bar
- Half an energy gel packet.

The 30 minutes after finishing exercise is known as the 'recovery window'. It's the ideal time for your body to take nutrients on-board which help to repair muscles and replace muscle glycogen stores.

The ideal post exercise snack should contain carbohydrate and a little protein such as:

- A bread roll with meat/chicken filling and a large banana
- A large bowl wholegrain cereal or porridge with low fat milk
- Homemade milk shake or fruit smoothie
- A couple of pieces of fruit plus 250ml low fat milk

Don't forget your next normal meals should have good amounts of slow releasing carbohydrates, some protein and be low in fat to keep your energy levels topped up for your next session.



Hydration

Keeping well hydrated is important when training, especially if you are exercising for more than two hours, even at moderate pace. Becoming dehydrated can affect your performance as well as your concentration or judgement. Aim to have 400 - 600 ml water two to three hours before a training session and then 200 - 250ml, ten minutes before you start.

When training for over an hour it will be important to carry fluid with you to drink while you train. Drink before you feel thirsty and little and often is the best way. Recommendations are to drink five to six sips (150 - 350mls) within the first 15 minutes and to continue this every 15 - 20 minutes throughout your session.

You will also need to replenish lost fluids after you exercise. The best strategy to estimate your fluid losses is by weighing yourself before and after training. This will help you understand how much you need to drink during and after training. Aim to have 1 - 1.5 litres of fluid for every kilogram of weight lost.

For training sessions under an hour, plain water is fine to drink. If your session lasts over 90 minutes you should have fluid that includes some carbohydrate and electrolytes. Commercial isotonic sports drinks include 5 to 7% of carbohydrate, but you can also make your own - mix 200ml concentrated orange squash with 1000ml of water and a pinch of salt (1g).

Fuelling during exercise: During extended periods of exercise, it's important to be taking on carbohydrates to help refuel the depletion on your glycogen stores. This guide should give you an idea of what you should be taking on board.


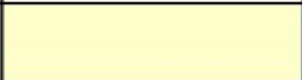
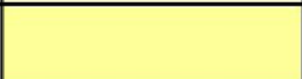





Duration of Exercise	Amount of Carbs	Examples
30 - 60 minutes	Small amounts of carbohydrates or a carbohydrate mouth rinse	Science in Sport Go Electrolyte Drink swilled in the mouth for 10 seconds and spat out
1 - 2 hours	Up to 30g / hour every hour	Science in Sport GO Isotonic Gel or Science in Sport Go Energy Mini Bar
2 - 3 hours	Up to 60 g / hour every hour	Science in Sport Go Isotonic Gel + Go Energy Bar or Science in Sport Go Energy Drink
3 hours +	Up to 90 g / hour every hour	2 x Science in Sport Go Isotonic Gel + Go Electrolyte Drink or SIS Go Energy Drink + Go Energy Bar



Science in Sport Product	Amount of Carbs Per Serving	Size Of Serving
Go Energy Drink	47g	500ml
Go Energy Bar	44g	65g
Go Electrolyte Drink	36g	500ml
Go Energy Bar Mini	25g	40g
Go Isotonic Gel	22g	60ml
Go Isotonic Gel + Caffeine	22g	60ml

Hydration

Staying hydrated is a daily task you need to focus on, not just to be done around training. The pee test is still the best way to check your hydration status

1		If your urine matches the colours 1,2 or 3, you are properly hydrated. Continue to consume fluids at the recommended amounts
2		
3		
4		If your urine colour is below the RED line, you are DEHYDRATED YOU NEED TO THINK ABOUT REHYDRATING!!
5		
6		
7		
8		



Aim for a urine colour between well and properly hydrated.

Moderately dehydrated is normal following exercise, drink 1.25l - 1.5l for every kg of weight lost during exercise.

Try to be well hydrated before bed to minimise losses during sleep.

Large quantities of certain vitamins and food can alter the colour of your urine.

Drinking to thirst is a great way to stay hydrated. If you are a particularly salty sweater then think about adding some electrolytes to your drink, something like Go Hydro from SIS works great.

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Walking Shoes and Kit

It's essential to invest in the right walking boots / shoes to ensure that your feet are comfortable. Your footwear should be appropriate for your challenge.

When undertaking a challenge that will involve persistent climbing and descending, we recommended choosing walking boots that have a sufficiently high ankle support and a stiff heel to give lateral support to your feet.

When buying walking boots or shoes please remember the following points:

- Do so at the end of the day as your feet will swell throughout the day. You will need to try them on when your feet are at their largest.
- Always wear socks and if possible the same socks you will be wearing when walking.
- We recommend medium Gore-Tex (or breathable) and waterproof walking boots / shoes. Please ask the store for help to ensure that you are fitted with the correct footwear.
- Make sure you try different types of footwear brands as they have different fits (narrow or wide).
- Always try both boots on, as lots of people have one foot slightly bigger than the other!

We recommend going to a specialist retailer and getting advice on the right boots or shoes for you. We very much suggest that you go to a good mountain/outdoor sports shop to try on lots of pairs and get advice rather than shopping online. It is essential that your feet are comfortable whether you go with a trekking boot or shoe.

Scarpa, Salomon or Merrell are quality trekking / mountain footwear brands.

Should I wear walking boots or shoes?

Unless you're going into rocky terrain, rugged mountain paths, deep snow or thick mud then shoes are preferable to walking boots. Suitable trekking shoes provide a far normal foot action and allow a faster walking pace.

Socks: Once you have your shoes, please invest in a good pair of socks. You don't buy a Ferrari and put go-cart tyres on it, so get a comfortable sock on your foot. A good sock will wick moisture away from the foot, keeping it cool and reducing the amount of rubbing that can occur.



Poles: It is well worth investing in a pair as they'll help your legs immensely especially when descending. We recommend that you spend at least £25 on a set, as the cheap ones tend to wear out very easily. Black Diamond are a good brand, although any spring-loaded poles over £25 should be sufficient.

Benefits of Walking with Poles

There are a significant number of benefits to be gained by using poles including:

- Causes a higher heart rate than normal walking at the same pace
- Burns 20-45% more calories than normal walking
- Makes walking a total body workout utilising 90% of your muscles
- Reduces the load by up to 30% on knees, hips and other joints
- Enhances balance and stability on uneven and slippery surfaces
- Provides extra power for ascending hills and helps with balance / stability on descents.

Tips for Walking with Poles:

1. **First, you carry.** Hold a pole in each hand, grasping it lightly. Walk with the poles alongside you, letting your arms swing in natural opposition to your legs (i.e., your left arm and right foot move in tandem). Do this for several minutes, until it feels natural.
2. **Then, you drag.** Strap on the poles. As you walk, open your hands and let the poles drag behind you. (You'll skip this step once you move on). Notice how the poles angle back behind you.
3. **Next, you plant.** Plant the poles on the ground, rather than dragging them. Lightly hold the grips and keep the poles angled at about 45 degrees backward. Hold your elbows close to your body with your arms straight but relaxed. Focus on making good contact with the ground.
4. **Then, you push.** As you get more comfortable walking, firmly push the poles backward with each step, applying force through the strap. Push your arm past your hip, opening your hand at the end of the arm swing. As each arm comes forward, pretend you're reaching forward to shake someone's hand.
5. **Finally, perfect it!** To maximize your walk, tweak your form. Roll from your heels through to your toes. If somebody was standing behind you then they should be able to see the sole of your shoe as you push off. Maintain good posture and lean forward slightly from your ankles.
6. **Going uphill?** Shorten your poles so that they're the same length and are at shoulder height when you plant them on the slope you're ascending.
7. **Going downhill?** Lengthen your poles so that they're the same length and are at shoulder height when you plant them on the slope you're descending. This will greatly reduce the braking force going through your knees and give you greater balance / confidence to descend more quickly.



Further Kit Advice & Recommendations

Layering is the best approach for working out the kit you need to wear in prevailing conditions. The ability to layer your clothing up or down from morning when it may be cold, to the mid-afternoon when temperatures reach their peak and then drop back down at night is key.

Layering also comes in handy as you ascend higher into temperatures or become more exposed to wind. Effective layering only works if each layer allows moisture to pass through and escape to the external environment. The best trekking clothing will often contain wool that promotes moisture transfer through its wicking properties. Cotton and denim absorb moisture and should therefore be avoided.

Trekking Shirts: We recommend short sleeve shirts and long sleeve shirts. Ideal fabric is a breathable, lightweight and quick-drying polyester, merino or nylon. Make sure that your shirts are not cotton. Great trekking shirts are made by: Mountain Equipment, Icebreaker, Craghoppers, Columbia and Patagonia.

Hiking Trousers and Shorts: Hiking trousers/shorts from Mountain Equipment, Craghoppers or Fjällräven are great. You may prefer to take convertible trousers that can change to shorts.

Wind Breaker: You should have a wind-proof jacket shell layer. You want this to be relatively light (not a winter jacket), but still warm and sturdy. Patagonia, North Face and Mountain have a great range of wind proof jackets and fleeces.

Waterproofs: You should have a water-proof jacket and pair of trousers. They need to withstand any rain that you will encounter. Patagonia, North Face and Mountain Equipment offer plenty of options for quality waterproofs that will keep the rain out!

Headgear/Sun Hat: You should bring a lightweight, easy-to-store sun hat with a wide brim to protect your head, face and neck from getting sun burnt. Sun hats that have an adjustable neck cover are ideal although a wide brimmed sun hat and light weight neck buff will work well too.

Neck/Head Band/Bandannas: If your hat doesn't have a neck cover you might want to bring a neck or head band which can help protect against sun burn whilst doubling as a scarf or head and ear warmer during the colder times. They are quite cheap and can be used as a neckband, head cover, scarf, bandanna or wristband.

Gloves: A lightweight waterproof pair are useful to keep your hands warm in cooler conditions or if the sun is strong. If you are trekking in much colder conditions then consider a thicker pair of gloves.

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Sunglasses: Good sunglasses are essential! Make sure that your sun glass lenses provide 100% protection from UVA.

Rucksacks: Good rucksacks are designed to transfer load weight to your hips. The shoulder straps should carry no more than 30% of the weight. Here are the key features to look for in your rucksack:

Size: The ideal size rucksack to use as a daypack should be 20 to 30 litres with a waterproof cover. This should be sufficient to carry your personal requirements for each day. The rucksack should be able to allow easy access to two 1 litre water bottles (Sigg or Nalgene) or a Camelbak/Platypus hydration system of at least 2 litres.

Rucksacks are generally not waterproof, but good ones should be weather resistant. Look for design materials like pack cloth for the bag and Condura for high friction areas (i.e. inside of the straps). A water-resistant urethane coating is also beneficial

Design: For perfect, fit the harness and suspension system should be adjustable. The shoulder straps should be well padded and not restrict movement. There should be a hip belt that's well-padded too. The best manufacturers are Deuter, Osprey and North Face. Don't forget to purchase a rain cover for your rucksack although most rucksacks come with them nowadays.

Water Bottles/Hydration Bladder: You should aim to drink 2 or more litres of water a day depending on the prevailing trekking conditions. To carry 2 or more litres of water on you each day you can either use 2 x 1 – 1.5 litre bottles or a hydration bladder system that holds 2 – 3 litres of liquid. It's a good idea to add some electrolytes to your water to ensure that you are sufficiently hydrated.

Other Key Accessories:

Trekking Towel - A medium lightweight trekking towel to dry your hair, face and hands after a day's trekking.

Sweat Resistant Sun cream - Don't just get any sunscreen. You will need a high SPF (greater than 30). You will also be exerting yourself so a sunscreen that is sweat resistant is important. A sun protection lip stick is useful too.

Insect Repellent - A basic insect repellent is important. Make sure to get a reliable brand that has a high Deet content - greater than 90%.

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Wet Wipes – Great for cleaning your hands and face, and wiping down your body after a long days trekking. We also recommend bringing a small antiseptic hand-gel for dousing your hands before meals

Dry Plastic Bags – Bring a few large, medium and small plastic bags that you can use to source separate your wet and dry gear. Use zip-lock bags for your small gear like your wallet, money, camera, passport etc.

Blister Plasters – Trekking up to 4-5 hours a day can sometimes result in painful and debilitating blisters. Treat blisters early and take immediate measures to reduce friction. When applying a plaster, make sure you remove excess moisture from the blistered area and use a good blister plaster like those from Leukotape P. or Compeed. Once you've applied the plaster or blister patch, apply zinc oxide tape over the area, wrapping it round your foot so that it doesn't come off too. It's a and old wives' tail that duct tape works well. In fact, duct tape is not breathable and hence the skin saturates under the tape and the blister worsens!

Head torch - The best way to trek at night or in poor light is with a good head torch as it keeps your hands free. The lighter the head torch the better. Check out the Petzl range.

General Meds – A small mountain / trekking first aid kit is a wise purchase.

Toiletries – One roll of toilet paper is a must! (remove the cardboard roll to save space).

Important Note:

When you are out walking, always let a friend or family member know where you are going (including the intended route), what time you intend to set off and what time you expect to be back. Remember to ensure your mobile phone is fully charged before you leave home and ensure you have made a note of the local Mountain Rescue number in case you need to contact them in an emergency.

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Avoiding Injuries

The main cause of injuries is training load error or doing too much too soon, before your body is ready to handle the extra stress and impact. We have a handy traffic light system that should help you understand if you're carrying an injury.



Green Light - Nothing particularly hurts, you have some fatigue because you've been training hard but you go out, you do you exercise, it may not be great but any aches and pains go away after a shower! That's all perfectly fine.



Mild Amber Zone - If you have a pain in the same area after 3 consecutive sessions then you have an injury. Catch it early and reduce your training for a few days and you'll be back feeling healthy and exercising again within a few days. The pain should be in the same location and start to come on at same distance into your exercise each time. These pains can be managed.



Full Amber Zone - If you have pain during your activity and a little while afterwards and again, in the same area after 3 consecutive sessions then you have an injury but you will need to stop exercising because you have let it progress from the above. Having the pain afterwards is the difference here. Now we are in full amber. Stop now and get some help.



Red Zone - If you hit the red zone, you'll have pain or soreness before exercise, it takes some loosening off, it then hurts during the exercise and afterwards. In real terms, you would be very unlikely to make the start line of a race or challenge. The injury is very significant and it will take a good period to get rid of. If you are at this point you are really injured!



The Screaming Neon Zone! If you are here, you can't walk or move properly, we can't help you. Don't let it get this far. Follow these steps and avoid injury.

Black toenails

These are often caused by shoes that do not have enough space between the longest toe and the front of the shoe or contact between the two during long periods of downhill walking or running. To prevent black toenail, you need to ensure you have correctly fitting socks and shoes.

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Blisters

These are caused by friction against the skin. This problem can be due to ill-fitting shoes but is often due to a rough area in a shoe or sock or pieces of grit in the shoe.

Stop when you first feel any localised burning or discomfort and see if there is an obvious reason. If a hot spot is found then immediately covered with a protective layer as this can prevent a blister forming. Several blister plasters are available which allow the area to remain clean and help the healing process.

Muscle cramps

These are a painful spasm or contraction in the muscle. This can be exacerbated by dehydration or loss of electrolytes from the body during heavy sweating. Advice is to stretch the muscle area and apply gentle massage.

Side stitch

This often occurs during periods of extra effort. Slowing down and varying your breathing pattern can improve this condition.

Sprains

Ankle sprains are common injuries when walking often caused by walking on irregular surfaces or your foot slipping off an edge or losing your balance. The areas that become inflamed can often be treated by the basic first aid of Rest, Ice, Compression and Elevation (RICE) as soon as possible after the injury. This immediate treatment helps to reduce swelling and pain.



Recording Your Exercise

When you're training specifically for a huge event and personal challenge, it's a great idea to record the exercise you're doing and you may even want to know how far and fast you've gone.

By keeping a training diary you'll be able to track your improvements over time and it also provides a real motivational boost if you're feeling a bit down about your exercise and need some inspiration to keep going. There are many smartphones that have free Apps so why not either download and start using one of these or get yourself a diary or notebook and start to keep a note of your training now.

You Can Do It!

At Full Potential, we're here to help you believe in your own potential, train well and enjoy your exercise to achieve your challenge goals.

Remember to be patient and aim to keep your training consistent, allowing it to build gradually each week. Try to start your training programme as far in advance of your challenge, as you can. If you can do this then you'll see your fitness improve and ultimately, you'll have a fantastic, memorable and enjoyable challenge experience!

**We hope you enjoy your training and exercise and
GOOD LUCK for a great Challenge experience!**

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