

# THE MARATHON DES SABLES:

A BEGINNER'S GUIDE TO TAKING ON  
THIS EPIC RACE!



TALES OF  
ADVENTURE

BY

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## The complete Marathon des Sables preparation guide

### Sections:

1. Application, training, and preparation
2. Equipment, food and nutrition
3. Backpack options
4. Sleeping bag options
5. Considerations for your shoe selection
6. How to meet the cut-off times on the Marathon des Sables

**Ethics statement:** Within this guide, there are affiliate links. I'm not under any obligation to write anything about these products, nor was I provided with any sort of compensation to do so. If you buy something after clicking the link, I'll receive a small commission that funds the upkeep of the website, which will help fund the next adventure!

### About the author: Chris Shirley MA FRGS

[Tales of Adventure](#) was founded as a speaker series in 2014, and is curated by Chris, the chief brand strategist, creative director and founder of [Haus of Hiatus](#), a branding and creative agency, based in Tallinn, Estonia.

A lifelong fan of endeavour (both physical and mental), he's a former Captain in the Royal Marines, has been a safety and security advisor on the BBC's High Risk and News Safety team, the global security advisor at an international media charity and an international disaster responder with Re:Act for a number of years - yet claims he's still not sure not sure what to do with his life.

He holds a master's degree in business management, has travelled in over 60 countries, is a Fellow of the Royal Geographical Society (FRGS), a Guinness World Record holder (from when he rowed across the Atlantic as part of a team, but also when he completed a marathon with a 100 lb backpack) and has a deep interest in pre-hospital medicine after sustaining a life-altering accident whilst attempting to climb the Matterhorn mountain in Italy.

He advocates for regular, yet controlled exposures to different types of risk to live a vibrant life, to prevent the weight of responsibility draining the fun from your days. These days, he finds it mostly in Brazilian Jiu Jitsu, wild swimming, training for the next adventure (the Silk Road Mountain race), and nostalgic shows like Netflix's Stranger Things.



To give context to the information, I'll be placing YouTube thumbnails throughout the document – clicking these will take you to the video which will give more context to the advice and guidance.

Sahara is an 8-minute video charting my preparation and experience on the MdS – this will give the most context to the whole guide.

[Link to 'Sahara: what it's like to run the Marathon des Sables' video](#)



## Part 1: Application, training, and preparation

The infamous Marathon des Sables – often described as ‘the world’s toughest footrace – is actually completely achievable by the anyone with a little amount of training. With generous cut-off times and a 93% success rate this year (2019), you should not allow the intimidating title and rumours to put you off. I’m no superman but I did feel that the event is billed to sound harder than it actually is.

This is how I got to the finish line.

Application process.

The two ways to enter: pay for your place; or enter through a charity. The MDS website lists the main charities that have places: <https://marathondessables.co.uk/charity-places/>

Private entry

You have two methods to enter privately: via the French entry or the Rest of World (RoW).

Registering via the French approach will require a French address (surprisingly!). This will cost you €3300 (around £2800) and is by far the cheapest option for entering. You apply directly to ‘Atlantide Organisation Internationale’ (AOI) and transfer the cost by BACS using different payment options. I paid mine through 4 or 5 international bank transfers every 3-4 months which was completely manageable (I bank with Santander and they charged around £15 for each transfer).

Be aware, the system is not quite as slick as entering via the UK company (some emails are badly translated from French and you don’t get automatic entry to the UK expo). That said, I’d happily take that stress again to keep the entry costs manageable. You’re also accommodated in a lower quality hotel – however could easily pay to upgrade if you wanted.

Entering via the UK / RoW entry is done through a third-party company that adds extra costs. Anecdotally, some of my tent mates that went through this company paid £4250 (£1400 more than my French entry!). For that price, you do get entry to the UK expo and a better hotel (as well as dealing with a UK company for any queries or problems).

Charity places

I’m all for running events for charity – however the MDS is a big ask.

A charity that I approached for a place a few years ago told me they expected me to raise at least £10,000. Whilst this may not seem much for some (so I’m told), the challenge of trying to raise that much seemed like too much to add on top of quite a challenging training schedule, family commitments and building my start-up social enterprise. So, I decided to self-fund my place and fundraise for a cause of my own choice.

Fundraising

It goes without saying that if you’re going to run the MDS, you may as well do it for charity. I did it for my fledgling social enterprise (The Hiatus Foundation) however a lot of the bigger charities will no doubt support you in this as it’s good for their publicity as so many people have done the London marathon now that it barely moves an eyebrow if you’re asking for donations.

Social media and communications strategy

It goes without saying that if you’re going to do the MDS, you’ll want to harness social media to share the experience.

I took my iPhone XR and GoPro Hero 5 to record the experience and felt this was enough to capture it.

Phone: I am with Vodafone which has a world traveller programme, whereby you pay £6 per day to use your UK minutes and data when in selected overseas countries. Morocco is one of these countries and I found that I had 3G or 4G for a large part of the run. This was useful as I could do Facebook live sessions during the event to show what I was experiencing and help friends and family to feel like they were part of it. I believe that this substantially increased donations to my cause as people would regularly check-in with me to find out how I was doing.

GoPro: For taking photos and first-hand video, the GoPro was great for this as it records high-quality pictures that can be edited on Snapseed to show the true colours of the desert.

You are issued a Spot tracker for the duration of the race for your safety, but also so that your supporters can follow your progress on the live updated map. The link to the map is generally released a day or two before the race starts so it's worth telling people to check the MDS website before you lose phone signal so that they know where to follow you (you will get annoyed with everyone constantly asking where they can follow your progress!).



Waking up at 5am and running ultramarathons across the South Downs Way – just one of a few training sessions to get me mentally and physically prepared for the MDS:

[Link to the video playlist](#)

## Training strategy

Paradoxically, the MDS is not a marathon in the traditional sense of the word. Don't get me wrong, you do a full marathon (and ultramarathon), in the Sahara however not a huge amount of it is actually running (if you're just aiming to complete it).

I'd estimate that I actually ran around 20% of it (I define running as anything faster than a shuffle) – and still placed around middle of the pack.

My approach was to ensure I was strong enough for the elevation but also conditioned enough for the long stage (and entire race). This meant my training looked something like this:

1. Multi-day running: To get my body conditioned to multiple days of running, I slowly built up the back-to-back training days. Even if you mix it up with running and walking, you're still on your feet – which is the important thing.
2. Long days: The most infamous part of the MDS is the long stage (day 4) consisting of a 70-90km leg to the next overnight camp. To get myself (mentally and physically) conditioned for the stage, I deliberately aimed to do a few 12-14 hours training days and carry a little more weight than I'd have on the day. I live by the South Downs way which was very similar to the kind of elevation I encountered on the MDS.

Towards the end of my training, I decided to do long days after 3-4 days of moderate distance runs (c.15km) – this helped me on the race as I was a little less concerned about it when I came to the morning of the long stage.

3. Gym workouts for leg, core and back strength: I find too much running can be pretty boring, so elected to build leg, core and back strength in the gym. This also helped me to recover from the runs as I could take it a little easier but use the sessions to manage body weight (mainly training in zone 2).

4. Mental resiliency training: One of the big challenges about the MDS isn't how far you have to go or how hot it is, it's the getting up every day after an average night's sleep and putting your backpack on to do it all over again. I trained for this by forcing myself to get up early and train in the dark and rain. This may sound like overkill however I believe using intrinsic motivation is a skill in itself, which you should develop for these challenges.

5. Zone 2 fat-burning: This is where a lot of your training sessions are going to be held – to keep excess weight off you and build the basis of aerobic fitness – which is where you'll want to spend most of your time for the race.

A word of advice: don't listen to people who have never run the MDS tell you that you should be running more than your zone 2 sessions – this is total BS. The MDS is a multi-day event in the desert up and down sand dunes the size of houses (not all of them) – unless you're aiming for a top 100, it's most definitely more walking than actual running.

6. Fun fitness: When you add up just how much training you could do, I decided that I would still continue with indoor rock climbing and Brazilian Jujitsu so that the race didn't completely take over my life. My advice would be to continue to do any hobbies you have whilst you train for the MDS; I saw people of all shapes and sizes overtake me and finish the race – putting your life on hold for the MDS will only make you resent it.

## **Pre-race administration**

### Medical checks

If you're based in the UK, it's worth going with Rory Coleman's London option – you can find him on the Facebook group. This costs £100 (paid in cash) and includes the ECG check (a mandatory check) however they do have options to do this in the pre-race admin day before the start.

I heard that this costs €200 however it's worth checking with the race organisers that they plan to do this with your race, as it might scupper things if they change it in future. I have a friend in his fifties who found a heart murmur during his ECG that meant he wasn't allowed to race. I did also hear of someone else in a similar position that had problems claiming back the race cost from insurance providers.

## **Nutrition**

Perhaps the next biggest part of your MDS prep after your bag. Being a bigger runner (c.97kg when I started), I opted for more than the minimum 2000 calories per day – aiming instead for around 2600 – 2800 Kcals per day (and more for the long stage).

As a moderately experienced ultrarunner, I firmly avoid sugar as much as I can for the race. That said, I did take a few sugary treats to pick me up when I was at a low ebb, however, be sure not to let yourself eat them all at once (otherwise your blood sugar levels will spike and then crash – making you feel terrible).

My complete food list can be found in this excel document and, in the photos, below. Fundamentally, you should ensure that you like the food that you're going to be consuming for the week but also that it agrees with you.

### Water consumption

A MdS running consultant told me I'd struggle with the MdS due to my size and difficulty to take water onboard. Whilst this may be true in the hotter years (we had it fairly mild from what I understand); I didn't struggle with dehydration. The water you're given is ample for the race, and there is loads of spare by the bottle bins at the CPs where people have partially finished theirs.

Having spent a fair amount of time in deserts and enough ultras under my belt gave me the confidence to add that consultant's opinion to the 'will keep in mind' category (the polite version here!). My personal opinion is that the scaremongering was partly to sell me his advice – which I suspect others have fallen for in the past.

The race itself

The race follows a similar format every year:

Days 1 – 3: around 32 – 37km each day.

Day 4: long day 75-80km (depending on which way you go)

Day 5: rest day (some competitors still finish the long stage on this day)

Day 6: Marathon day (42.2km) – this is the formal end of the race where you'll be presented with your medal.

Day 7: Charity (aka Solidarite) stage – c.6km walk through the desert to the waiting buses.



Not many people realise there are some big hills on the MdS (I certainly didn't). Here's what it looked like in more detail:

[Link to Marathon des Sables video.](#)

### **My race strategy**

My strategy was to start slow – to acclimatise to the heat and weight, then finish fast when my pack was lighter.

A lot of the racers went fast on day one (I stopped to answer the call of nature immediately after the start of stage 1 and found myself to be the very last competitor!) only to regret this. At the end of the stage, many people were complaining of blisters and sore backs (the queues at the medical tents attest to this).

From my experience with endurance events and my limited understanding of human physiology, I believe that it's best to spend most of your race in zones 2 and 3 – so as to limit the amount of lactic acid your body produces in the anaerobic zones (high Z3 and above).

This can be best measured by how well you can hold a conversation during the event. I also used the heart rate on my Garmin Fenix 5 to back up how I was feeling to ensure I stayed below the lactic threshold (the point where you start burning more carbohydrates and muscle than fat) for the early stages.

As with most people, I have a hard time regulating my pace in races due to over-competitiveness and excitement, which means I have to force myself to run slower than normal. It's been proven to me countless times so now I do take it seriously – even if it means you have to run on your own instead of with faster friends.

### Taking care of yourself

**Blisters / chaffing:** I chose not to tape my feet up and instead deal with the blisters on a day-to-day basis. My personal experience is that this is a better strategy for me however it won't work for everyone. Zinc oxide tape is useful for single- or two-day events to ward off the dreaded hot spots, however you still get deeper blisters forming. I also find my feet get too hot with all the tape on – which I suspect won't help.

Instead, I used Vaseline as a form of barrier cream and to keep things like groin, thighs and feet moving with as little friction as possible.

**Heat:** It goes without saying that heat is the biggest challenge of the race (the sand dunes are pretty high up there also!). My strategy for managing it was to ensure I always drunk at least 1.5 litres between each CP – then generally up to another litre at the CP. Along with those, regular consumption of salt tablets generally every 500ml (which was every time I finished one of the bottles attached to my backpack).

**Sunscreen:** I took the minimum 100ml of factor 50 sunscreen and then a separate factor 50 lip balm. This was about enough as I chose to take long sleeve t-shirts and running tights, however for my next desert ultra (currently sizing up the Iran desert ultra!) I'd take an extra 50ml as a small backup.

### Checkpoints

Based on my experience and advice from previous competitors, I made it my goal to spend as little time in the CPs as possible, so that I could carry my momentum throughout each stage. From a mental perspective, it's easy to get lulled into having a rest and chat with the other competitors in the shade. It does though – however – make it harder to start again. Accepting that it's going to be a long enough day on your feet in the heat is something that will take a while, but when you pass loads of people who have gone too fast in the heat and now recovering in the CPs, it's slightly satisfying (obviously hoping that nothing is badly wrong with them).

### Racing with other competitors

Part of the attraction of the MDS for me was to get some time to myself out in the beautiful wilderness of the Sahara Desert. Having rowed the Atlantic Ocean with four other guys in 2017, I believe extended periods in the outdoors for solemn contemplation is crucial to being able to make sense of the world and genuinely relax.

The other huge benefit of the MDS is that you get a week with some of the most interesting people you've ever met in an incredible location. I found that a good balance would be running one or two legs whilst chatting to others was really nice and then enjoying some lone time for the remainder was also good. This meant that when you finished the day, the tent would be buzzing with the stories of everyone's different experience.

### Summary

The MDS is a challenging endeavour; for the preparation, travel, uncertainty and natural apprehension that comes with the long list of pre-race tasks. But do try and savour the experience as it's easy to let it overtake your life.

Ultimately, some people will worry themselves sick stressing about weight-saving measures or if they've done enough training, or previous competitor's horror stories. Listen to some of it but try to distance yourself from those

that spread panic unnecessarily – the race has been going for some 35 years now, and they’ve experienced any issue it may throw up.

And remember, no one ever asks where you came – only if you finished it.

## **Part 2: Equipment**

It is said that gear selection will make or break your race. I originally included this in a full MDS write-up however the detail in this makes it useful as a stand-alone document.

### **Backpack**

Most people opt with the official WAA backpack, which does them fine – however I found it to be too small for my needs as everything weighs more.

My first choice was to buy the Raidlight Desert pack ultra-combo, however, when it arrived – I presumed it had been made by a 5-year-old. The stitching was poor quality, and it didn’t fit me in any way. On the plus side, it was light and did look quite cool in white – however I elected to send it back and get a refund. I’m quite glad I did as my tent-mate tore his Raidlight bag on the MDS. Hopefully just a short-term quality issue however I’d be reluctant to buy their bags again on that one experience.

I went with the [Ultimate Direction Fastpack](#) 35L in a medium / large (I’m 6’2” and this fit perfectly) which was the best choice for me as a taller and heavier than most runners.

The packs fit me well from the start of training, and the extra capacity over the WAA one was super useful not only for training through winter but also having space to store extra water between the longer checkpoints.

I partnered it with the WAA 5L front pouch (which got retired to my main backpack compartment after the first day) and side pouches. One side pouch held my snacks for the day (making it easy to reach on the move) and other was a small admin pouch comprising of: salts tablets; suntan lotion; venom extractor; a small roll of zinc oxide tape and my GoPro. I found this set up invaluable as the front pockets don’t hold a huge amount on the backpack.

### **Clothing**

#### **Micro down jacket**

I took a rather excellent [Montane micro down jacket](#) which was ridiculously light and packs down to the size of an apple.

#### **Shorts**

I used [Under Armour heat gear running shorts](#) as they’re 4-way stretchy (super useful to prevent snagging) and allow heat to dissipate quickly.

**Underwear** I used [Under Armour boxer jocks](#) which didn’t give me any chaffing at all.

#### **T-shirt**

I used Rab’s excellent Force Long Sleeve t-shirt as it has a factor 50 sun protection (SPF), an anti-bacterial treatment and low-profile / soft seams. Long sleeves mean you can pull them down to protect you from the sun without overheating.

#### **Compression tights and calf socks**



At over six feet tall, our runner prefer using calf socks to minimise the amount of microtears that a week traversing unstable terrain causes, but also to reduce the risk of sunburn.

Some examples are, CEP (we used the separate calf socks, however it appears they only do [an all-in-one version](#) - [Salomon](#), and many others.

I also took a pair of [Skins](#) compression tights to reduce the amount of micro tears, protect from sunburn and increase the speed of expelling waste products from the race. Whilst it wasn't a perfect option for keeping cool, I felt it was overall worth it.

## Mandatory items

For the 2019 race, the following items were mandatory (this may obviously change for the future).

- 1. head torch and a complete set of spare batteries:** My [Petzl Tikka headtorch](#) was perfect for this – which you only use for the night stage. My top-tip is to use some fabric tape (or whatever you can get hold of) and attach the 2 spare AAA batteries to the back of it, so you always know where they are. As an added bonus, they also act as a counter weight to the lamp.
- 2. Sleeping bag.** See my write up of the sleeping system below.
- 3. 10 safety pins.** I bought thin and cheap and spent the race regretting it as they broke every few hours. I almost got a penalty on the second day when I had one pin holding my front race number on. Top tip: Don't buy cheap!
- 4. compass, with 1° or 2° precision.** I didn't use my compass during the race as I was never first at any point (!!). Even at night the course is lit up with glow sticks. I just bought a [super cheap one](#) and it stayed in my backpack the entire time.
- 5. Lighter:** I took one because it was a named item however relied on [Lifeproof's windproof matches](#) more as the lighter was ineffective in anything more than a gentle breeze (and you're not supposed to cook under the tents – the staff do come around and remind you of this!).
- 6. A whistle:** Check your bag; there's probably one attached to the chest strap. If not, a [cheap one](#) will do.
- 7. Knife with metal blade:** I used the [Petzl Spatha rope knife](#) for this however most people generally just use a razor blade or something.
- 8. Topical disinfectant:** I used decanted [Dettol](#) into a small plastic a small 50ml tube, which was perfect for cleaning blisters and small wounds (once you've added to water).
- 9. Anti-venom pump:** I used the [Aspivenin venom pump](#). This stayed in my left hand 'admin' pouch however was able to be quickly used if needs be. I am planning to add this to my own remote area medical kit as I was very impressed with it.
- 10. A signalling mirror:** Most outdoor shops want to charge you £10-£15 for essentially, a make-up mirror. Buy a [cheap travel mirror](#) online and you'll pay half or even less instead.
- 11. One aluminium survival sheet:** Available from any outdoor shop or [online](#). Stayed in my bag the entire time.
- 12. One tube of sun cream:** One 100ml tube of factor 50 did me just fine (even though the back of my legs got burned on the admin day). Kept in my left-hand admin pouch.
- 13. 200 euros.** Try and get 50 Euro notes if possible and keep in a waterproof case (like this [cheap Amazon one](#)).

**14. Passport (or identity card for Moroccan residents).** Make sure you waterproof (with the Euros) it as you will inevitably pour water over yourself when the weather gets hot.

### Water bottles

I used 2 [Raidlight 600ml 'Eazyflask'](#) soft water bottles however would go with the hard versions next time.

Soft water are great in theory, however when you're trying to fill up quickly become an utter chore. You have to remove them from the backpack and very steady to get the water in. I dropped them (when full) on at least 4 occasions, losing around 2L of water to the Sahara – not great if the weather is super-hot.

### Shoes

Having used Inov-8 running shoes for around a decade, I decided that the [ParkClaw trail runners](#) would be great option as it's suited to hard and soft surfaces. Being a UK size 11, I opted to buy 2 pairs in a size 12. This meant that my feet would get used to the shoes however not completely wear one pair down during the training. I did notice a lot of people using Hoka Ones which I still can't bring myself to wear purely on how they look.

### Gaiters

I used the Raidlight desert gaiters which stopped 99% of sand getting in (the other 1% found its way in there once you take your shoes off at night). I'd fully recommend getting the Velcro strips tailored on by Kevin, the owner of Alex shoe repairs. He's super-friendly, really flexible, very friendly and also understanding of your needs – can't rate him highly enough.

### Poles

I deliberated over taking the extra weight of [hiking poles](#) for a while until a friend who'd done it the previous year recommended taking them – utterly glad I did. Whilst some argue that the c.500g is a lot (about 5% of my overall bag weight on day 1). Some people elected against it and said they regretted the decision by day 3.

### Sleeping systems

I opted to take a [Thermarest Z-Lite sleeping mat](#), which was fine however if I was to do the race again, I'd take an inflatable mat to sleeper deeper at night (probably a [Thermarest Neoair Uberlite](#)). The tent has a thick carpet floor which protects the mat from sharp rocks however it is good practice just to make sure there is nothing below to puncture it.

### Sleeping system

I borrowed my friend's [Aegismax ultralight sleeping bag](#) which was plenty warm enough to use without anything else (obviously temperature may vary on other years) which was fine despite the somewhat low temperatures at night. For a mat I used Thermarest's excellent Z-lite Sol folding mat I decided against cutting it as I still use it for mountaineering and attached it using [2 bungee cord loops](#) tied to the bottom of my backpack (using 2 stopper knots)

### Cooking

I used [titanium mug](#) by a mate and this worked really well (despite choosing to leave the lid behind). It takes 650ml of water which is generally enough for a porridge breakfast and an instant coffee.

I took one box of fuel tablets (ESBIT) that I purchased at the race shop. You're limited to one pack until everyone has had a chance to buy. I found this was about right to get a fire going which you bolster with dried plants as the main fuel source.

A cut down water bottle makes a great cup and means you don't have to clean the food from your mug afterwards (saving water)

## Medical

**Blister prevention:** I've used DuoDerm's excellent Hydrocolloid dressing for blisters for many years now – mainly because it provides a waterproof and anti-bacterial barrier between the socks and the blister. I also took a medical lancet to pierce and drain any blisters.

**Anti-chaffing:** I used a [100ml tub of Vaseline](#) - again – as it's been my go-to procedure for many years now. I use it moisturise my feet as well as 'moving-parts', and it's prevented chaffage everytime. In extremis, you can use it on your lips also.

## Other gear

As well as the above, I also took:

- 1. Soft ear plugs:** Goes without saying, you need good quality sleep and each tent will have someone that snores in it. Take 2 pairs as you generally lose at least one whilst there (I think the camel spiders sneak in and take them to line their nests!)
- 2. Portable power bank:** For charging my mobile and GoPro. This [Anker Powercore 10,000AmH](#) as moderately cheap (c.£25), compact and allowed 4 charges or so – which was fine for the race.
- 3. Half a bottle of wine:** Yes, genuinely – I believe that no race should ever feel bigger than you. So my way of stealing the MDS' soul (taken from David Goggins book) was to have a small nip of red wine from the bottle you have with your last meal before the race, and offer the same to my tent mates every night. It's the mountaineer's mindset applied in the desert (except it's usually a nice Scottish whiskey).
- 4. Hotel slippers.** I took some of these, but they only survived 2 days. Next time, I'd take some ultra-cheap flip-flops (can't be too upset at losing a £2 set of flip flops!).
- 5. Windproof matches.** Unless you can find some ultra-fine kindling or take tampons with you (that are great for starting fires with), it's worth taking getting some [windproof matches](#). ESBIT tablets can be hard to light in windy conditions or if they accidentally get wet.
- 6. iPhone and headphones.** I'm with Vodafone and had reception for a lot of the trip. This meant I could post photos to social media and keep everyone updated off my progress personally. That said, I always ensured it was packed in the main compartment of my backpack, so I didn't feel the need to incessantly check it. The die-hards and purists out there will no doubt scoff at this statement, however if you're fundraising for a charity – the engagement may increase donations when people see what you're actually experiencing (and they feel part of the challenge).
- 7. Factor 50 Lip salve.** The desert is a hot place (as you've probably gathered by now!); and your lips are something you want to save from the sun. Whilst this [Uvistat factor 50 lip salve](#) has a funny taste and leaves you with white lips – it does protect you from burned lips. I kept it in my admin pouch as I needed it every hour (because it washes off when using your bottle) One is fine (unless you lose it obviously)

## Food

Perhaps one of the most important parts of the race - as this will undoubtedly be the thing that picks you up when you're at a low ebb. Also, having spent many months of my life in the desert and hot environments, I know that my appetite massively drops in these places so I'd need something that I actually want to eat in my normal day-to-day life.

My strategy around nutrition comes from 15 years of training for and competing in ‘ultra-events’ (2 x Ironman triathlons, multiple ultramarathons, Devizes to Westminster canoe race).

My thoughts on:

**Sugar:** For long day events, I try to avoid anything with sugar in to keep my blood sugar levels as stable as possible (my first Ironman led me to drink too much Pepsi during the marathon and found it hard to keep it stable). For the MDS I used a combination of dried mango, cranberries, jelly beans and raisins – however I had to be incredibly disciplined in not eating them all in one go (easier said than done!).

**Protein:** As a big guy, I need a little more protein than your usual person. My strategy was to eat most of it in the last meal, but also using a few [jerky snacks](#) as morale during the day time. I’ve used this in the mountains and was pleased when they stayed moist in the desert (in temps up over 40 degrees Celsius).

**Fat and carbohydrates:** As I’d be spending most of my time in zone 2 (burning more fats than carbs), I’d need a fat-heavy diet. But then how do you get that in food that can resist the high temperatures of the desert AND still be palatable? See below for how I managed this.

**Food weight:** My total food weight (not including packaging weighed in at 4.94kg. The advice from various MDS consultants is that your food should weigh around 3.5kg – take this advice if you want, however if you’re a bigger runner; add the extra calories and ignore this advice.

One thing that did interest me was a few racers mixing [Huel powdered food mix](#) with their morning Porridge. I’ve been using Huel for a year and can’t believe I didn’t think of this – something I intend to trial over the summer for my next big physical challenge.

**Calories:** The minimum is 2000 Kcal per day (or 14,000 total). I planned on a c.2600 Kcal per day (with a heavy emphasis on food I would actually want to eat). As you can see below, my total calories came to 19,377.5 Kcal.

Day 1			
Item	Weight (g)	Amount	Calories (Kcal)
<a href="#">Firepot meal</a>	200	1	830
<a href="#">graze protein bite</a>	60	2	280
oats (apple)	36	1	230
Latte	19.5	1	82
Cappuccino	17	1	74
<a href="#">Beef jerky</a>	35	1	99
Cranberry / raisin mix	100	1	308
Hot chocolate	60	1	240
BBQ peanuts	100	1	510
S/Total	627.5	10	2653



Day 2			
Item	Weight (g)	Amount	Calories (Kcal)
<a href="#">Firepot meal</a>	142	1	600
<a href="#">graze protein bite</a>	60	2	280
oats (cinnamon)	39	1	241
Latte	19.5	1	82
Cappuccino	17	1	74
Mango	100	1	328
<a href="#">Beef jerky</a>	40	1	109
<a href="#">Beef jerky</a>	70	1	182
Dry roasted peanuts	100	1	591
Instant noodles	100	1	151
S/Total	687.5	11	2638

Day 3			
Item	Weight (g)	Amount	Calories (Kcal)
<a href="#">Firepot meal</a>	200	1	750
<a href="#">graze protein bite</a>	60	2	280
oats (apple)	36	1	230
Latte	19.5	1	82
Cappuccino	17	1	74
<a href="#">Beef jerky</a>	35	1	86
SIS Rego recovery powder	50	1	180
Dry roasted peanuts	100	1	591
jelly beans	100	1	377
S/Total	617.5	10	2650

Day 4 (Long day)			
Item	Weight (g)	Amount	Calories (Kcal)
<a href="#">Firepot meal</a>	200	1	830
<a href="#">graze protein bite</a>	60	2	280
oats (cinnamon)	39	1	241
Latte	19.5	1	82
Cappuccino	17	1	74
Dried mango	100	1	328
<a href="#">Beef jerky</a>	35	1	99
<a href="#">Beef jerky</a>	70	1	185
SIS energy orange	50	1	189
SIS Go electrolyte blackcurrant	40	1	146
Dry roasted peanuts	100	1	591
Fruit puree	90	1	352
cookies (red pack)	50	1	229
S/Total	870.5	14	3626

Day 5 (Rest day)			
Item	Weight (g)	Amount	Calories (Kcal)
<a href="#">Firepot meal</a>	200	1	755
<a href="#">graze protein bite</a>	60	2	280
oats (apple)	36	1	230
Latte	19.5	1	82
Cappuccino	17	1	74
<a href="#">Beef jerky</a>	40	1	109
Instant noodles	300	3	453
Cranberry / raisin mix	100	1	308
Hot chocolate (plain)	36	1	146.5
S/Total	808.5	12	2437.5

Day 6 (Marathon day)			
Item	Weight (g)	Amount	Calories (Kcal)
<a href="#">Firepot meal</a>	150	1	634
<a href="#">graze protein bite</a>	60	2	280
Oats (cinnamon)	39	1	241
Latte	19.5	1	82
Cappuccino	17	1	74
Dried mango	100	1	328
<a href="#">Beef jerky</a>	35	1	101
Dry roasted peanuts	100	1	591
Cranberry / raisin mix	100	1	308
<a href="#">Beef jerky</a>	35	1	91
Instant noodles	100	1	151
S/Total	755.5	12	2881

Day 7 (Charity stage)			
Item	Weight (g)	Amount	Calories (Kcal)
<a href="#">Firepot meal</a>	200	1	830
<a href="#">graze protein bite</a>	60	2	280
oats (apple)	36	1	230
Latte	19.5	1	82
Cappuccino	17	1	74
<a href="#">Beef jerky</a>	40	1	109
jelly beans	100	1	377
BBQ peanuts	100	1	510
S/Total	572.5	9	2492

### Part 3: Backpack considerations

I saw many different types of backpacks at the Marathon des Sables' start line, however these are the ones that stuck out the most:

Ultimate Direction –

The complete Marathon des Sables preparation guide – [Tales of Adventure](#), powered by [Haus of Hiatus](#)

Whilst it's not the cheapest option for the MdS, the 35-litre version was my backpack of choice due to a number of factors, such as build quality, simplicity, load capacity and the front pockets that we'll explain in more detail.

### Build quality

The pack may be a little heavier than some of the other options here, however, the build quality was better than the Raidlight version that appeared to favour weight over build strength. When your pack weighs many kilograms on day one, we felt the safest option would be to pick a pack on its strength to endure the challenge, instead of being the lightest.

### Simplicity

The build is super simple, a main pocket, some front options and stretch stow pouches around the sides.

### Load capacity

The pack carried everything we needed when we paired it with a front pouch option for day one. After we'd worked through some food on the morning of day two, the front pouch got retired to the bottom of the main pocket as we could comfortably carry everything even when you were issued lots of water.

### Front pockets.

The use of the front pockets was a bit of gamechanger for me, to pack items that I'd need more regularly or without much notice (such as food, the camera, or the antivenom). Some packs don't come with the front pockets, however we're converts to their utility now and would pick one with integrated front pockets for any ultradistance race.

If the price of the Ultimate Direction puts you off, it might be worth looking at the [Montane trailblazer backpack](#) as it has lots of similar high-end fastpacking features at a much lower cost.

### [Raidlight Ultralight backpack](#)

We bought the Ultralight pack first due to its weight and obvious design for desert racing yet decided to return it for a refund after some concerns over the build quality, which proved worthwhile when our tentmate's one sadly broke during the race around the long day.

### [Salomon trailblazer 30L](#)

The Salomon trailblazer model is a series of packs designed for generalist uses of hiking, mountain biking, and day-to-day uses, however their design makes them quite well orientated towards ultradistance events.

Whilst they don't feature front chest pockets or some of the other features of the high-end packs, the cost is exceptionally good value for the MdS to keep it manageable. Whilst we've not tried them yet, we use Salomon gear for other endurance events and always find it well made and up to the task.

### [OMM Classic 32 litre](#)

Another quite simple yet robust pack, the OMM comes in around the middle on price point, yet packs more of the higher end features. The one unusual features of the pack is that it features a top flap to cover access to the main contents. Being used to the ease of the roll top packs, we see this as a negative for speed of access, but a positive in increasing pack space (as you can use it to hold down extra gear).

### [MDS race backpack](#)

The official backpack of the race, and the one you're given if you enter via the UK option. At just 25 litres of carriage capacity (including the front packs), this didn't give enough space to carry everything on day one as well as the extra storage you need between checkpoints when you get issued your water. Our perspective is that unless you're aiming for a high finishing place and are therefore trying to reduce pack weight to as low as possible, avoid the stress of cramming all the gear in and opt for a little more carriage capacity.

The best sleeping bags for the Marathon des Sables

The best sleeping bag for the Marathon des Sables is a highly personal choice, and comes from how well you know yourself, how comfy you want to be!

The average night time temperature is between 10°C and 20°C ( according to this source <https://thinkmorocco.com/sahara-desert-temperature/>), however anecdotally, I've also heard it can drop down to as low as 5°C in extreme circumstances – therefore a 2-season sleeping bag will keep you covered.

I ran the MdS in 2019 and opted to take a [Thermarest Z-Lite sleeping mat](#), which was fine however for the next ultradistance race, I'd take an inflatable mat to sleep a little deeper at night (probably a [Thermarest Neoair Uberlite](#)). The tent has a thick carpet floor which protects the mat from sharp rocks however it is good practice just to make sure to sweep anything that may have found its way in that might puncture it.

#### Part 4: Sleeping bags options

##### 1. [Aegismax ultralight sleeping bag](#)

With a recommend range of 6°C(43°F) to 10°C (58°F) and an extreme rating of 0°C/(32°F), this sleeping bag weighs in at just over 400 grams (around three quarters of a pound (0.8lb)), and was perfect for us. Just pick the correct size for you and it'll sit happily in your backpack (add article) for when you've finished moving for the day. At just over £100 but with a low weight and pack size, we think this is the best choice for most who will be tackling this great endeavour.

##### 2. [Forclaz down sleeping bag](#)

If you're concerned about being cold at night, perhaps consider the Forclaz offering at Decathlon, with its comfort rating down to 0°C, and a lower limit temperature of -5°C. We've not had a chance to test this out yet, however have been impressed with the build quality and price of other Forclaz items we've purchased for adventures before (especially when there is a likelihood of it being destroyed or lost on the adventure, there's no point in spending big bucks on gear that may not be used again).

##### 3. [Alpkit Pipedream 200](#)

Weighing in at meagre 545 grams, Alpkit's offering is perfect for your running across the desert racing ambitions! It features 100% Responsible Down Standard (RDS) certified hydrophobic down, a 7°C sleep limit, and each purchase will see a donation to the Alpkit foundation to help disadvantaged adventurers access opportunities for growth.

##### 4. [Rab Mythic Ultra 180 Down Sleeping Bag](#)

Probably the gold standard of ultralight sleeping bags with a price tag to match (over €500!), the Rab Mythic looks and sounds like a work of art using a heat-reflective thermo-ionic lining (with titanium coating on the internal fibres) gives it a 'sleep limit' down to 0 °C and an extreme limit of -12°C , it comes in at 400 grams, making it the lightest option amongst those currently on the market.

##### 5. [Mountain equipment Lunar II](#)



The heaviest 2-season bag within a reasonable price range (check out our kit list for cost-saving tips on not spending a fortune on this endeavour!), the Lunar II weighs in at just over a kilogram, yet has a comfort range down to -2°C (28°F) and extreme limit of -17°C/1°F

Thinking about what gear you need to successfully complete the Marathon des Sables? Read our complete kit list [here](#)

## Sleeping system

I borrowed my friend's which was plenty warm enough to use without anything else (obviously temperature may vary on other years) which was fine despite the somewhat low temperatures at night. For a mat I used [Thermarest's excellent Z-lite Sol folding mat](#) I decided against cutting it as I still use it for mountaineering and attached it using 2 bungee cord loops tied to the bottom of my backpack (using 2 stopper knots)

## Part 5: your shoe selection

Another highly personal part of completing the Marathon des Sables is what shoes will you wear for it?

Covering 250 kilometres of soft sand and rocky ground in relentless heat isn't your usual event, therefore your feet have different demands placed upon them than your usual Saturday morning Parkrun – but what do you need to think about before setting off for Morocco, read on for how I tackled it.

### 1. Gaiter attachment

You'll need to have Velcro stitched to the sole for the gaiter to attach to, therefore we'd anticipate some barefoot running shoes may not have sufficient space to allow this (although we're fully prepared to admit we may be wrong on this). Whilst the majority of MdS is run on sand and soft ground, there are occasional stretches on firmer gravel roads (see our film below for this on the long day), therefore don't assume you won't need to condition yourself to running on firm surfaces.

### 2. Feet swelling

Also, you may find your feet swell due to the strain places upon on them. Having spent many years pushing my body to the limits in the Royal Marines, I anticipated this and so ordered a size above my typical running shoes (i.e., ordering a UK size 12, where I usually wear a UK size 11 for day-to-day activities).

### 3. Shoes that are damaged from the training demands

I bought 2 pairs of exactly the same shoe (Inov-8 ParkClaw 275) so that we had a pair for training in that would handle the vast mileage we wanted to do for conditioning with the pack and the long day (aka 'long drag'), and another pair that we occasionally trained in to break them in before they got the Velcro tailored. We think this approach is what minimised the blisters and led to a successful completion of the race.

These are some of the options I saw at the start line and a good starting point for entrants to consider:

### 1. [Inov-8 TRAILTALON 290 V2](#)

We opted for a similar option when we ran the MdS in 2019 where comfort was the ultimate decider for us. These are a little heavier, however more orientated towards ultradistance events, therefore we'd anticipate them to potentially cause less blisters than our Parkclaws.

### 2. [Hoka one Clifton \(wide\)](#)

Whilst Hoka's trainers certainly require some visually getting used to, they were prevalent on the start line as well as being worn fashionably.

### 3. Salomon

A company that's been at the forefront of endurance and ultradistance events since we've known, Salomon offer many options that we think would be a good fit for most MdS runners, however these would be our first choice for considerations for the race. Of course, the best practice would be to get a pair to see how you get on and take them to the tailor to check they're content Velcro strips can be added.

### 4. Raidlight

By far the brightest option that we looked at, Raidlight are another long-term producer of ultradistance gear so I'd expect their trainers to be similarly well orientated for the Marathon des Sables.

## Part 6: How to meet the cut-off times on the Marathon des Sables

My experience on the Marathon des Sables taught me there are two approaches to successfully tackle the race: the Turtle approach vs the hare approach.

The cut-off for each day is pretty simple: stay ahead of the camels! But this is more challenging than it sounds when prior acclimatisation is difficult, you're sharing a tent with other adventurous people, you're excited about doing something you've been building up to for months, and you're getting messages from your friends at home wishing you good luck.

### The Turtle approach

**Benefits:** You have a steady heart rate; you can eat food and drink water whilst still maintaining a good pace; Things don't rattle or fall off you; and you can maintain a conversation or daydream / plan your life. Additionally, we listened to audio books (a tactic I learned from rowing across the Atlantic Ocean a few years prior).

**Downsides:** By being slower; it feels mentally more challenging when you see people overtaking you. I think it'd be a difficult strategy to take for the super competitive types who want to be out front leading the pack. Slower finisher times in the earlier stages, however you'll overtake hares in the later days when they start to feel the effects of running above zone 3 heart rate in the hot temperatures.

### The Hare approach

**Benefits:** Quicker finisher time in the early stages. Morale boosts seeing your name higher up the leader board in the early stages.

**Downsides:** You might be running with your heart rate in anaerobic respiration zone more often - meaning you might need longer to recover at stops and checkpoints. Burning glucose as the main source of energy means you'll produce more lactic acid, making recovery hard and slower – not a good place to start the long day, where you'll wish you were more rested!

For my next ultradistance races, maybe we'll adopt a combined strategy to push harder in the early days and then slow it down