More Fuel You

UNDERSTANDING
YOUR BODY & HOW TO
FUEL YOUR ADVENTURES







RENEE McGREGOR

FOREWORD BY DAMIAN HALL

More Fuel You

More Fuel You

UNDERSTANDING
YOUR BODY & HOW TO
FUEL YOUR ADVENTURES







RENEE McGREGOR





RENEE McGREGOR

First published in 2022 by Vertebrate Publishing.



Vertebrate Publishing
Omega Court, 352 Cemetery Road, Sheffield S11 8FT, United Kingdom.
www.adventurebooks.com

Copyright © Renee McGregor 2022. Foreword copyright © Damian Hall 2022.

Photography copyright of the people shown in the images unless otherwise credited.

Renee McGregor has asserted her rights under the Copyright, Designs and Patents Act 1988 to be identified as author of this work.

This book is a work of non-fiction. The author has stated to the publishers that, except in such minor respects not affecting the substantial accuracy of the work, the contents of the book are true.

A CIP catalogue record for this book is available from the British Library.

ISBN: 978-1-83981-082-4 (Paperback) ISBN: 978-1-83981-083-1 (Ebook) ISBN: 978-1-83981-084-8 (Audiobook)

10987654321

All rights reserved. No part of this work covered by the copyright herein may be reproduced or used in any form or by any means – graphic, electronic, or mechanised, including photocopying, recording, taping or information storage and retrieval systems – without the written permission of the publisher.

Every effort has been made to obtain the necessary permissions with reference to copyright material, both illustrative and quoted. We apologise for any omissions in this respect and will be pleased to make the appropriate acknowledgements in any future edition.

Edited by Jen Benson.

Cover design by Jane Beagley, Vertebrate Publishing, www.adventurebooks.com Layout and production by Geoff Borin, www.geoffborinbooks.com

Vertebrate Publishing is committed to printing on paper from sustainable sources.

Printed and bound in the UK by TJ Books Limited, Padstow, Cornwall.

To Maya and Ella.

Always believe and shine bright.

CONTENTS

Fuelling for Trainin	g	a
INTRODUCTION 7		
A WORD FROM THE AUTHO	R	1
FOREWORD by Damian Hall	IX	

PART 1: Fuelling for Training and Competition 11

CHAPTER 1: **Food as Fuel** 13

CHAPTER 2: **Athlete Diets** 52

CHAPTER 3: Low-Carbohydrate Diets 56

CHAPTER 4: Vegan and Plant-Based Diets 68

CHAPTER 5: Intermittent Fasting 78

CHAPTER 6: Calorie-Controlled Diets 87

PART 2: Fuelling for Specific Populations 101

CHAPTER 7: **The Female Athlete** 103

CHAPTER 8: **The Masters Athlete** 130

CHAPTER 9: The Individual Athlete 138

CHAPTER 10: Over to You 145

ACKNOWLEDGEMENTS 163

NOTES 165

BIBLIOGRAPHY AND REFERENCES 171

FORFWORD

Renee and I go back to the misty dawn of time. Well, 2013 anyway, pretty much the start of my ultrarunning career. I was about to do the Spine Race and was semi-certain I was going to die. I can't remember if I asked or if she offered, but I learnt she was a sports dietitian in our local trail-running group, the Bath Bats, and she kindly gave me advice on how to fuel for a 268-mile race in January.

I still remember some of it. Protein shakes would be a smart move at the main checkpoints, she said, plus bagels have more calories/carbs than normal bread. Oh, and try not to die.

Because as well as being a world-renowned expert on various aspects of nutrition, Renee cares too. That's obvious from the areas her work has gone into. In fact, she's probably the busiest person I know. It's been thrilling to watch her career trajectory, from offering advice to green pipsqueaks like me to supporting medal-bothering Olympians and being on the telly a lot. Crucially, along the way she's also helped so many people overcome complex relationships with food and raised awareness for previously invisible issues such as RED-S, which will have helped countless others.

Something worked for me on that first Spine Race, and it probably wasn't just the nutterbutter bagels that got me to the end. But I've been pestering Renee for advice about the best nosh to stick in my cakehole ever since: for races in the Arctic, the Sahara, for my best runs at UTMB, before setting records on various National Trails.

When unconventional fuelling ideas have gained popularity in the running world, to the point where they've made me curious, I've asked for her thoughts. She's always been strict that she'll only give advice backed by science. But both in person and in writing she delivers it in an accessible way. I think I've only ignored her words of wisdom once – regarding low-carb, high-fat diets – and I regretted that.

As I've accidentally stumbled into confession mode, the idea that 'the lighter a runner, the faster they'll be' was in my mind a few years back and I'm glad Renee talked some sense into me there, too. My best results, and longest spells uninjured, have occurred when I haven't been stepping neurotically on to the scales each day.

Talking of honesty, Renee's is striking and ultimately helps us identify with her and perhaps be more forgiving of ourselves, too. We're all human and life can be tough. But here are some science-backed, easy-to-understand ideas, delivered with compassion, that will help you.

Not only am I still working with Renee nine years later, but we're collaborating more closely than ever. Knowing – and, importantly, following advice from – Renee has helped make me a better athlete and person.

In the same way that a physiotherapist who tells a runner they can still run with a niggle is a keeper, so too is a sports dietitian who not only encourages copious consumption of tea and chocolate milk (though perhaps not together), but who herself eats (dark) chocolate daily.

Damian Hall, record-breaking ultrarunner, coach and author

A WORD FROM THE AUTHOR

Food is such a simple human need: something that should provide us with pleasure and with the energy to live and do the activities that we want, while also being central to our relationships and well-being. But the longer I work in the nutrition industry, the more I notice how far we are straying from these principles, into a global marketplace dominated and controlled by those more interested in making money than nurturing people and communities.

Throughout my career I have worked with numerous individuals from a range of different backgrounds in both the clinical and sports sectors: non-athletes, athletes of all levels, those of all ages, from junior to masters, and across numerous sports. What I find fascinating is that regardless of who I work with, the messages around food are invariably both confusing and confused.

In the twenty years I have been working in the field of nutrition, never have our choices around food been so closely tied to our identities as they are today. What, and how, we eat is about so much more than our food preferences – for many, it is about the message we want to send out to the world, the identity we want to forge for ourselves and present to others. We seem to have lost the art of eating for joy and sustenance somewhere in the confusion of both mainstream and social media messaging. Add wearable tech and food-tracking apps into the mix, each of which is designed with its own set of agendas, and it's hardly surprising that we are coming to rely on external cues for choosing what, and when, to eat, rather than our fantastically complex internal monitoring systems, which really are based on what our body needs.

Working with athletes is not just about improving and optimising performance outcomes; it is also about helping people to adopt a healthy attitude and balance in their relationship with food. Surrounded by mixed messages and poorly researched information, it is hardly surprising that many aspiring athletes – both at recreational and elite levels – struggle with this balance. If we're not careful, the constant need to follow the most upto-date diet as recommended by the latest social media sensation can lead to poorly informed decisions, and this is doubtless fuelling the current rise in dysfunctional relationships with eating. Tying our dietary choices up with our sense of worth, whether that's feeling virtuous about veganism or believing that we need to 'earn' our food before we're allowed to eat it, cannot provide the foundation for a good relationship. It makes me sad to watch as food seems to have become the enemy rather than something that brings joy.

So, when Vertebrate asked me to write this book, I didn't need to consider it. It was the book I wanted to write. I have always been told that what makes me good at my job is the ability to cut through the bullshit and make the science both practical and accessible to all. I wanted to write a book that provided individuals with the facts all in one place so that they could go on to make an informed choice about how they would like to eat, devoid of judgement. Moreover, I wanted to bring the fun and joy back to eating, while still helping people meet their fuelling requirements.

* * *

My own journey with food is one with many twists and turns, influenced hugely by my childhood, the places I have travelled, my job and of course my own personal experience of fuelling my running adventures.

My parents are Indian, Punjabi Sikh to be precise, and they moved to the UK in the mid-1960s after an arranged marriage. Settling in London, they did all they could to source traditional ingredients so that they could maintain the diet they were not only familiar with, but that provided huge comfort when becoming accustomed to a foreign land. I was born ten years after they arrived in the UK and for the first few years of my life, prior

to attending school, I was brought up on a diet of rice, chapatis, lentils and vegetable curries. Food is really important in Indian families – it is very much the heart of the home. My earliest memories of food are of eating together, enjoying the vast array of flavours, surrounded by conversation and laughter.

My parents were vegetarian and, although they never insisted I follow in their footsteps, I have chosen to remain vegetarian, mainly because I don't like the taste of meat. I find it interesting that, while my diet is very varied now, I still have a big preference for spicy foods and always favour a curry over a burger or fish and chips, which backs up the idea that our early food experiences hugely impact our preferences in adult life.

It was only once I started school that the curiosity of how others ate, plus the desire to be accepted by my peers, made our diet as a family slowly start to change and include more Western cuisine. School lunches were definitely not much to write home about, but once I started being invited to friends' houses, going to parties and attending Brownies, my journey of exploration with different foods and traditions gradually grew, paving the way for how I eat today.

I have many wonderful memories around food, but the one that always comes to mind is the first time I was introduced to the baked potato. I remember it clearly even now, nearly forty years later. I was six years old and we had been invited to our neighbours' for Bonfire Night. I was so excited because we had never been to a bonfire gathering before. While I was familiar with fireworks from our annual Diwali celebrations, this was something different, and it was even more exciting as we had been learning about Guy Fawkes at school. As we stood there amongst the oohs and aahs, we were handed small, foil-wrapped packages; they were like precious gifts and, boy, did they bring joy. I will never forget that first mouthful of hot potato mixed with melted butter and cheese. It was absolutely delicious and, to this day, baked potatoes are a firm favourite and regularly appear on my menu. This memory is hugely significant for me. It created such a positive association with the act of nourishing my body, which in my mind is a big part of the role of food in our lives.

Sadly, my relationship with food was not always so easy. During my teenage years, not eating became a way of punishing myself for feeling as though I wasn't good enough. I didn't feel accepted by my peers or the society that I had been born into. The colour of my skin didn't fit, I didn't fit and, subsequently, I wanted to become as small and insignificant as I felt. Avoiding or 'containing' food provided a false sense of security, a coping mechanism, a method of denying those difficult and traumatic emotions I was not prepared for, or even mature enough to face at that stage. Thankfully, I eventually did tackle and overcome those difficulties and, though traumatic at the time, my past experiences provide an essential insight into my practice today.

Becoming a dietitian and spending eight years working in the NHS has also had a big impact on my relationship with food. As well as arming me with the knowledge and understanding to underpin my own nutrition, working with many unwell patients who were often desperate to eat but unable to do so due to a wide range of clinical problems finally helped me to fully appreciate and be grateful for the joys of eating. While I no longer work in the NHS, I will always see it as being paramount to my career journey. I learnt to be flexible and adaptable, and to think on my feet. I learnt that, while knowing the theory was essential, humans are not textbooks and often have multiple issues occurring at the same time. These experiences helped me to become more resourceful and provided the best grounding and platform to grow from. More recently, I have learnt so much from spending time in places like Nepal, a country that not only stole my heart but showed me how lucky we are in the Western world where we take running water and food availability for granted.

By the time I left the NHS, I was also a mum to young daughters. Becoming a parent changed my entire outlook on life. I felt a huge sense of responsibility – not just to provide my children's growing bodies with good nourishment, but also to nurture their sense of worth, develop their self-confidence, and help them navigate life and all that it brings with it. Through both my professional and personal experiences, my aim has always been to try to be a good role model.

For this reason, we never talk about 'good' or 'bad' foods at home, but instead about eating some foods less often. Being physically active is about fun and enjoyment, not achieving a particular body size or excelling in a given sport. And, most importantly, I want my daughters to grow up knowing that they are not defined by their looks or their achievements, but loved and accepted for who they are, with the onus on appreciating that we don't fail, but we learn and gain knowledge from every experience, which in turn creates more opportunity. I guess in some way, it is these values that have also helped me to progress in my career and in turn help others.

The move into sports nutrition seemed like a logical step to me. I had always been a sporty child – I swam, danced, played hockey and netball. Being physically active is something that gave me, and still does give me, huge pleasure. So, while the girls were still young and at home, I set about completing my second postgraduate qualification, this time in applied sports nutrition. What came next has been a diverse career spanning more than ten years working with a real mix of athletes, attendance at major international competitions, including the Rio 2016 Paralympics, and input into numerous nutritional protocols and pathways within various sporting organisations.

I got into running when my youngest daughter was eleven months old as a means of creating a small window for myself and allowing Mother Nature to do what she did best and help lift my mood. I was struggling with postnatal depression and my twenty-minute run a few times a week made a big difference. Since then, I have built my mileage up slowly and moved up from half marathon to marathon, from road to trail, to where I am now, running ultramarathons over a mix of terrains but with a real love for mountain and forest trails. While I don't think it is necessarily a prerequisite for practice, I do think my own experiences in endurance sport help me to understand those of the athletes I work with better.

As for me, I still don't always get it right and I have made my fair share of mistakes along the way. When I started running, even though I had the knowledge, I don't think I fully trusted or appreciated just how much energy it took to be able to run consistently well and progress. I fell into the trap of worrying about undoing all the good of training by eating too much

and subsequently can see that, while it was accidental, I did under-fuel for a long time. Restoring a healthy balance brought its rewards to both my running and my health.

People are often curious about my relationship with food and training. I can hand on heart say that I now eat to train rather than train to eat. Eating in this way has not only made food enjoyable again but has significantly improved my performance and allowed me to train consistently, even as I get older. Like any long-term relationship, my relationship with food has had many twists and turns along the way, but through experience, both professional and personal, I finally feel like I have a great attitude towards eating, and it is exactly this which I hope you will all gain from reading this book.

INTRODUCTION

The idea that nutrition and performance are inextricably linked is not new, but knowledge around the topic is growing and evolving all the time. The first scientific studies on carbohydrate and fat metabolism in athletes were conducted in Sweden in the 1930s, igniting an interest in diet as a performance aid. Since then, sports nutrition has become a standalone science, with many diverse branches and specialisms emerging over the years.

While well-conducted scientific research is essential for understanding and advancing the field of sports nutrition, interpreting its findings isn't always straightforward. Studies are often hard to access in full, inaccurately reported by the mass media, or they use a very specific group of participants, making them less relevant to the wider population. A study involving male trained athletes that looks at nutritional needs at altitude, for example, is not necessarily going to be relevant for untrained males, any female athletes, or those training at sea level.

So where else can we go for information and advice on the best way to eat to fuel our training? Social media is a relatively recent phenomenon, and yet it is already hugely influential in shaping the lives – and food choices – of many. A study from Aston University in 2020 demonstrated that other people can have a huge influence over our food choices, concluding that:

'We may be influenced by our social peers more than we realize when choosing certain foods; we seem to be subconsciously accounting for how others behave when making our own food choices.'

Indeed, we have to appreciate that nutrition in general, regardless of whether it is sports-related or not, is a highly personal and individual experience. Nutrition is multi-faceted, in that it is not just about the nutrients we put in our bodies, but also about the role it plays in our lifestyles, as well as the psychology involved.

How we choose what we eat is influenced by many factors, which differ between people and also for any individual from one day to the next.

They include:

- hunger and preference
- education
- budget, income and food availability
- cultural beliefs, family, peers and habits
- mood, stress and guilt
- media and social media
- food trends
- supermarkets/offers
- attitudes, beliefs and relationship with self.

Additionally, we cannot forget that food choice is important because it creates consumer demand for suppliers who produce, process and distribute food.² The global sports nutrition market was valued at 50.84 billion US dollars in 2018 and is expected to increase to 81.5 billion US dollars by 2023.³ It is clear that big businesses have a lot to gain by using influential personalities to promote their products. While some sports nutrition products may have a part to play in optimal performance, most are just an expensive gimmick. If it sounds too good to be true, then it probably is too good to be true; in reality, there are never any quick fixes when it comes to nutrition, health or performance.

We live in an age where anyone can set themselves up as an expert and reach millions without any relevant qualifications or experience and in a mostly unregulated space – sadly with potentially disastrous consequences for their followers. The rise and fall of the 'clean eating' movement is a good example of widely accepted nutritional advice devoid of scientific

or expert input. In the field of sports nutrition, the allure of fad diets also extends to their proposed performance benefits. Whether your aim is to get leaner, stronger or faster, to bulk up or drop weight fast, someone has a diet that guarantees success.

There is no doubt that what we eat has a huge impact on both our physical and mental health and well-being, and on our performance when it comes to training for, and competing in, our chosen sport. So how do we navigate the maze of conflicting information out there, choose a way of eating that is right for us, and make sure we do it as well as possible? That's where this book can help.

In the first part of this book, I aim to address each of the most popular athlete diets around today: what they are, how they work and how to approach them safely, with optimal health and performance in mind. I guide you through the key points you need to know, and the dangers and pitfalls to look out for as you go. In the second part, the focus is on population groups that are often overlooked in the sports nutrition world, where research is scant but the importance of good fuelling is still highly significant.

For simplicity, I'm going to use the term 'athlete' for all levels and abilities in sport. So, whether you're a runner, cyclist or climber, recreational, professional or elite level, you'll discover how to eat best for you and your sport based on both the most up-to-date science and my twenty years of experience as a dietitian and sports nutritionist.