

CONTENTS

Forewords by Meb Keflezighi and Susan Williams vi

Preface viii

Acknowledgments x

ONE	Principles of Nutrient Timing	1
	Physiological Basis for Nutrient Timing	1
	Nutrient Timing, Training, and Performance	5
	Nutrient Timing, Food Intake, and Body Composition	10
	Conclusion	14
TWO	Assessing Sport Performance	15
	Sport Performance Analysis	16
	Creating a Toolbox for Performance Nutrition Assessment	26
	Conclusion	40
THREE	Psychology and Sport Nutrition	41
	Age and Nutrition	41
	Hunger and Eating Habits	44
	Preparing for Nutrition Change	46
	Conclusion	51
FOUR	Functionality of Foods	57
	Digestion of the Macronutrients	57
	Understanding Carbohydrate	58
	Understanding Protein	61
	Understanding Fat	63
	Fuel Oxidation	66
	Using the Functional Foods	68
	Conclusion	72
FIVE	Timing Fluid Intake	79
	Testing Hydration Status	80
	Hydration and Performance	81
	Hydration Issues	85
	Conclusion	90

SIX	Macronutrient Timing Strategies	91
	Nutrient Strategies 92	
	Pretraining Nutrient Strategies 93	
	Nutrient Strategies During Training 96	
	Posttraining Nutrient Strategies 99	
	Crossover Concept 102	
	Conclusion 104	
SEVEN	Nutrition Periodization	105
	Rationale for Periodization 105	
	Athlete Differences 106	
	Periodization and Nutrition Planning 107	
	In-Season 113	
	Off-Season 115	
	Conclusion 117	
EIGHT	Nutritional Supplementation	121
	Evaluating Supplements 121	
	Dietary Supplements 123	
	Sport Supplements 130	
	Ergogenic Aids 133	
	Conclusion 139	
NINE	Nutrient Timing in Changing Environments	141
	Altitude 141	
	Heat and Humidity 145	
	Cold Exposure 151	
	Air Pollution 152	
	Conclusion 153	
TEN	Competition Day	157
	Combative Sports (Weight Classified) 158	
	Strength and Power Sports 162	
	Endurance Sports 164	
	Team Sports 167	
	Long-Duration Sports Requiring Concentration 169	
	Bibliography 173	
	Index 181	
	About the Authors 189	