

# Contents

<b>Authors</b>	.....	<b>7</b>
<b>Chapter 01</b>	<b>The history of sports nutrition</b> .....	<b>9</b>
	Bengt Saltin and Asker Jeukendrup	
<b>Chapter 02</b>	<b>What is the optimal composition of an athlete's diet?</b> .....	<b>14</b>
	Liz Broad and Greg Cox	
<b>Chapter 03</b>	<b>The optimal pre-competition meal</b> .....	<b>19</b>
	Asker Jeukendrup	
<b>Chapter 04</b>	<b>Carbohydrate intake during exercise</b> .....	<b>25</b>
	Asker Jeukendrup	
<b>Chapter 05</b>	<b>Hydration: what is new?</b> .....	<b>31</b>
	Asker Jeukendrup	
<b>Chapter 06</b>	<b>Fat burning</b> .....	<b>38</b>
	Asker Jeukendrup	
<b>Chapter 07</b>	<b>Nutrition for recovery</b> .....	<b>48</b>
	Louise Burke	
<b>Chapter 08</b>	<b>Nutrition, Sleep and recovery</b> .....	<b>54</b>
	Shona Halson	
<b>Chapter 09</b>	<b>Building muscle</b> .....	<b>62</b>
	Stuart Phillips and Mark Tarnopolsky	
<b>Chapter 10</b>	<b>Train low – compete high</b> .....	<b>66</b>
	Keith Baar	
<b>Chapter 11</b>	<b>Optimizing training adaptations by manipulating protein</b> .....	<b>71</b>
	Kevin Tipton	
<b>Chapter 12</b>	<b>Alternative fuels</b> .....	<b>80</b>
	Asker Jeukendrup	
<b>Chapter 13</b>	<b>Dietary supplements</b> .....	<b>86</b>
	Hans Braun	
<b>Chapter 14</b>	<b>Risks associated with dietary supplement use</b> .....	<b>92</b>
	Ronhald Maughan	
<b>Chapter 15</b>	<b>Nutrition and immune function</b> .....	<b>98</b>
	Michael Gleeson	
<b>Chapter 16</b>	<b>Supplements to boost immune function</b> .....	<b>105</b>
	David Nieman	
<b>Chapter 17</b>	<b>Sports nutrition for women</b> .....	<b>111</b>
	Brent Ruby	
<b>Chapter 18</b>	<b>Nutrition, the brain and prolonged exercise</b> .....	<b>117</b>
	Romain Meeusen and Phil Watson	
<b>Chapter 19</b>	<b>Weight management</b> .....	<b>123</b>
	Asker Jeukendrup	
<b>Chapter 20</b>	<b>Protein and weight loss</b> .....	<b>129</b>
	Samuel Mettler and Kevin Tipton	

<b>Chapter 21</b>	<b>Nutrition- and exercise-associated gastrointestinal problems</b> . . .135
	Beate Pfeiffer
<b>Chapter 22</b>	<b>Marathon running</b> . . . . .140
	John Hawley
<b>Chapter 23</b>	<b>Nutrition for middle distance running</b> . . . . .145
	Trent Stellingwerff
<b>Chapter 24</b>	<b>Swimming</b> . . . . .152
	Louise Burke
<b>Chapter 25</b>	<b>Triathlon</b> . . . . .160
	Asker Jeukendrup
<b>Chapter 26</b>	<b>Adventure racing and ultra marathons</b> . . . . .166
	Mark Tarnopolsky
<b>Chapter 27</b>	<b>Team sports</b> . . . . .173
	Stuart Phillips
<b>Chapter 28</b>	<b>The Future: Individualizing nutrition &amp; hydration</b> . . . . .178
	Trent Stellingwerff
<b>References</b>	. . . . .185
<b>Photo &amp; Illustration Credits</b>	. . . . .195