

Contents

1	Introduction	9
1.1	How to Use This Book	9
1.2	Developments in Mountain Biking	10
2	The Physiology and Anatomy of a Mountain Biker	17
2.1	From Beginner to Pro From a Physiological Perspective	17
2.1.1	Training Effects on the Heart, Circulation and Musculoskeletal System	17
2.1.2	Metabolism	31
2.2	Requirement Profiles for Individual Disciplines	39
2.2.1	Cross-Country	39
2.2.2	Marathon	43
2.2.3	Stage Races	45
2.2.4	Downhills	45
2.2.5	4-Cross	46
2.2.6	Dual Slalom	47
2.2.7	Uphills	48
2.2.8	Technical Races	48
3	Training	51
3.1	Basic Principles of Training Theory	51
3.1.1	Description of Training Load	53
3.1.2	Recovery	55
3.1.3	Mountain Bike Training Principles	58
3.1.4	Training Methodology	60
3.2	Training Zones	69
3.3	Heart Rate Training	82
3.4	Performance Testing	89
3.4.1	Lab Testing	89
3.4.2	Field Test	93
3.4.3	A Simple Test to Determine the Anaerobic Threshold	94
3.5	Periodization: The Training Year	96
3.5.1	Preparation Phase (PP)	99
3.5.2	Racing Phase (RP)	110
3.5.3	Transition Phase (TP)	112
3.5.4	Running Training Throughout the Year	113
3.5.5	MTB or Road Bike	113

3.6	Training Errors	117
3.7	Performance Categories	118
3.8	Training Camps	133
3.9	SRM-PowerMeter: High-Tech Training	138
4	Strength Training for Mountain Bikers	145
4.1	Periodization	147
4.2	Strength Training Rules	149
4.3	Strength Training in Practice	150
4.3.1	Weight Room	150
4.3.2	In the Gym or at Home	156
4.4	Strength Circuit	160
5	Functional Stretching	163
5.1	Why Stretch?	163
5.2	What does Stretching Achieve?	163
5.3	Stretching Program	167
5.4	Stretching on the Mountain Bike	173
6	Training Management	177
6.1	Be Your Own Coach	177
6.2	Your Own Training Plan	177
6.3	Training Plan Modifications	183
6.4	Training Diary	189
7	Nutrition	195
7.1	Fundamentals of Mountain-Bike-Specific Nutrition	195
7.2	Nutrition for the Different Training Phases	201
7.3	Pre-Race Nutrition	204
7.4	Nutrition During the Race	208
7.5	Post-Race Nutrition	210
7.6	Weight Loss for Bike Racing	210
7.7	Nutrition FAQs	212
8	Technique Training	217
8.1	The Importance of Technique Training	217
8.2	Choosing the Most Important Cycling Techniques	219
8.3	Technique Training: When and How?	221
8.4	Exercise Circuit	222
8.5	Small Games and Exercises With the Mountain Bike	225

9	Psychological Training	233
9.1	When Fear Gets in the Way	233
9.2	Build Motivation Using Realistic Goals	235
9.3	Mental Technique Training	236
9.4	Mental Race Preparation: Optimal Excitement	240
9.4.1	Relaxation Techniques	240
9.4.2	Marshalling Your Resources	242
9.5	The Right Mental Approach to Training	242
9.6	Recovery Through Relaxation	243
9.7	Mental Pre-Race Program	243
10	Mountain Bike Racing for Beginners	245
	Bibliography	251
	Photo Credits	252