

Contents

Preface	xi
----------------------	-----------

SECTION 1: UNDERSTANDING THE KNEE

Chapter 1: Anatomy of the Knee.....	3
Bones and Articulating Surfaces	4
Passive Stabilizing Structures.....	7
Active Stabilizing Structures.....	12
Summary	14
Chapter 2: Common Causes of Knee Injuries.....	15
Biomechanical Alignment.....	16
Suboptimal Muscle Function and Strength	17
Poor Mobility at Adjacent Joints	18
Poor Strength in Surrounding Musculature	19
Excessive Tension in Surrounding Muscle and Fascia.....	19
Flat-Out Overuse	19
Types of Knee Injuries.....	20
The BIG Question	22
Common Misconceptions about Knee Rehabilitation.....	24
Chapter 3: The Bulletproof Knee Program Overview	27
Ten Things You MUST Do to Keep Your Knees Healthy	28

SECTION 2: STRENGTH TRAINING AND THE HEALTHY KNEE

Chapter 4: The Gluteals.....	33
Functional Anatomy	36
Assessment.....	38
Training	40
Summary	43
Chapter 5: The Posterior Chain	44
Functional Anatomy	44
Training	50
Summary	53
Chapter 6: The Quadriceps	54
Functional Anatomy	54
Training	58

Summary	62
Chapter 7: Single-Leg Training	64
Quad-Dominant Exercises.....	68
Hip-Dominant Exercises	72
Summary	75

SECTION 3: MOBILITY AND THE HEALTHY KNEE

Chapter 8: Hip Mobility	79
Definitions of Flexibility and Mobility.....	79
Mobility vs. Stability.....	80
The Joint-by-Joint Approach to Mobility.....	81
Sitting’s Effects on Hip Mobility.....	86
Strategies to Improve Hip Mobility	87
Weight Training for Improved Mobility?.....	95
Summary	96
Chapter 9: Ankle Mobility.....	98
Ankle Mobility.....	99
Ankle Mobility Drills	101
Summary	105

SECTION 4: SOFT TISSUE AND THE HEALTHY KNEE

Chapter 10: Soft-Tissue Length	109
Dynamic Flexibility.....	110
Static Stretching	113
Eccentric Quasi-Isometrics (EQI’s).....	118
Summary	121
Chapter 11: Soft-Tissue Quality.....	123
Soft-Tissue Quality to the Rescue!.....	123
Foam Rolling	126
Active Release Technique.....	128
Deep Tissue Massage.....	129
Self-Instrument Massage.....	130
Summary	132

SECTION 5: OTHER FACTORS THAT IMPACT KNEE HEALTH

Chapter 12: Improving Athletic Ability	137
Ballistic Training	139
How to Incorporate Ballistic Drills into Your Program	140
Basic Plyometric Drills.....	142
Summary	145
Chapter 13: Diet and Supplementation	147
Improve Acid-Base Status.....	147
Decrease Inflammation.....	148

Supplementation	149
Summary	152

SECTION 6: THE NO-MORE-KNEE-PAIN PROGRAM

Chapter 14: The No-More-Knee-Pain Program.....	155
Core Training	156
Phase I: Bad → Ok	156
Phase II: Ok → Good	163
Phase III: Good → Great	168
Add True Force Absorption Work.....	172
Chapter 15: Optimizing the No-More-Knee-Pain Program	174
Heat Pre-Workout.....	174
Knee Sleeves vs. Knee Wraps	175
SIM Pre-Workout.....	176
Proper Warm-up	176
Ice Post-Workout.....	177
Bank Cards for Fluid Drainage.....	178
Summary	178
Chapter 16: Closing Thoughts	179

BONUS SECTION: STATIC STRETCHING EXERCISES..... 181

BONUS SECTION: FOAM ROLLING EXERCISES..... 195

BONUS SECTION: SINGLE-LEG EXERCISES 207

About the Author 225

References 233