

SPORTS MEDICINE: TECHNOLOGIES AND GLOBAL MARKETS



HLC183A
March 2015

Shalini Shahani Dewan
Project Analyst

ISBN: 1-62296-061-0



BCC Research
49 Walnut Park, Building 2
Wellesley, MA 02481 USA
866-285-7215 (toll-free within the USA),
or (+1) 781-489-7301
www.bccresearch.com
information@bccresearch.com

TABLE OF CONTENTS

TOPIC	PAGE NO.
CHAPTER 1 INTRODUCTION	2
STUDY OBJECTIVES	2
REASONS FOR DOING THIS STUDY	2
CONTRIBUTIONS OF THE STUDY AND INTENDED AUDIENCE	3
SCOPE OF THE STUDY	3
METHODOLOGY	3
INFORMATION SOURCES	4
ANALYSTS' CREDENTIALS	4
RELATED BCC RESEARCH REPORTS	4
BCC RESEARCH WEBSITE	4
DISCLAIMER	5
CHAPTER 2 EXECUTIVE SUMMARY	7
<i>SUMMARY TABLE GLOBAL MARKET FOR SPORTS MEDICINE, THROUGH 2019 (\$ MILLIONS)</i>	8
<i>SUMMARY FIGURE GLOBAL MARKET FOR SPORTS MEDICINE, 2012-2019 (\$ MILLIONS)</i>	8
CHAPTER 3 OVERVIEW	10
DEFINITIONS	10
SPORTS MEDICINE	10
HISTORY OF SPORTS MEDICINE	11
<i>TABLE 1 EVOLUTION OF SPORTS MEDICINE, 1950-1992</i>	11
COMMON SPORTS INJURIES	12
ACUTE INJURIES	12
CHRONIC INJURIES	12
Sprains and Strains	13
Sprains	13
Strains	13
Hamstring Strain	13
Groin Strain	13
Knee Injuries	13
Knee Sprains	13
Knee Strains	14
Knee Bursitis	14
Tear of the Meniscus	14
Knee Joint Dislocation	14
Knee Fractures	14
Other Knee Injuries	14
Compartment Syndrome	15
Concussions	15
Shin Splints	15
Achilles Tendon Injuries	15
Fractures	15
Acute Fractures	15
Stress Fractures	16

TOPIC	PAGE NO.
Dislocations	16
Rotator Cuff Injuries	16
TREATMENT OF SPORTS INJURIES	16
Nonsteroidal Anti-inflammatory Drugs	16
Immobilization	17
Surgery	17
Rehabilitation	17
Other Therapies	17
TYPES OF SPORTS MEDICINE PRODUCTS	17
BODY RECONSTRUCTION AND REPAIR	17
Artificial Reconstructive Implants	18
Arthroscopic Devices	18
Prosthesis	18
Orthobiologics	18
Matrix	19
Growth Factors	19
Stem Cells	19
Stem Cell Harvesting	19
Stem Cell Donation	20
BODY SUPPORT AND RECOVERY	20
Braces and Support	20
Hot/Cold Therapy	20
Hot Therapy	20
Cold Therapy	21
Compression Clothing	21
MONITORING DEVICES	21
Cardiac Monitoring	21
Respiratory Monitoring	22
Musculoskeletal Monitoring	22
Hemodynamic Monitoring	22
ACCESSORIES	22
NONSTEROIDAL ANTI-INFLAMMATORY DRUGS	22
ADVANTAGES AND DISADVANTAGES OF SPORTS MEDICINE	23
ADVANTAGES	23
DISADVANTAGES	23
CHAPTER 4 REGULATORY ASPECTS	26
GENERAL CONTROLS	26
SPECIAL CONTROLS	26
PREMARKET APPROVAL	26
TABLE 2 NEW APPROVALS OF SPORTS MEDICINE DEVICES BY PREMARKET APPROVAL, 2010 - SEPTEMBER 2014	27
NEW APPROVALS OF SPORTS MEDICINE DEVICES BY 510(K) CLEARANCES, 2010 - SEPTEMBER 2014	28
TABLE 3 NEW APPROVAL OF DEVICES BY 510(K) CLEARANCES, 2014	28
TABLE 4 NEW APPROVALS OF DEVICES BY 510(K) CLEARANCE, 2013	29
TABLE 5 NEW APPROVALS OF DEVICES BY 510(K) CLEARANCE, 2012	31
TABLE 6 NEW APPROVALS OF DEVICES BY 510(K) CLEARANCE, 2011	32

TOPIC	PAGE NO.
<i>TABLE 7 NEW APPROVALS OF DEVICES BY 510(K) CLEARANCE, 2010</i>	33
NEW APPROVALS OF NONSTEROIDAL ANTI-INFLAMMATORY DRUGS	33
<i>TABLE 8 NEW APPROVALS IN NONSTEROIDAL ANTI-INFLAMMATORY DRUGS USED IN SPORTS MEDICINE, 2010 TO SEPTEMBER 2014</i>	34
RECALLS	34
<i>TABLE 9 RECALLS OF DEVICES, 2010 TO SEPTEMBER 2014</i>	35
<i>TABLE 10 RECALLS OF NONSTEROIDAL ANTI-INFLAMMATORY DRUGS, 2010 TO SEPTEMBER 2014</i>	36
SAFETY ALERTS	38
<i>TABLE 11 SAFETY ALERTS FOR SPORTS MEDICINE, 2010 TO SEPTEMBER 2014</i>	38
CHAPTER 5 NEW DEVELOPMENTS	41
PIPELINE PRODUCTS	41
NEW TECHNOLOGIES	42
GAIT AND MOTION ANALYSIS	42
MULTI-JOINT DYNAMOMETER WITH SPORTS STIMULATOR	42
GROWTH IN SURGICAL TECHNIQUES	43
PLATELET-RICH PLASMA THERAPY	43
TISSUE ENGINEERING AND GENE THERAPY	43
IMAGING ADVANCES	43
THE PRIMUS REHABILITATION SYSTEM	44
BALANCE ASSESSMENT AND TRAINING SYSTEM (BATS)	44
EMG BIOFEEDBACK	44
EXTRACORPOREAL SHOCK WAVE LITHOTRIPSY	44
BIOABSORBABLE DEVICES	45
MERGERS AND ACQUISITIONS	45
<i>TABLE 12 MERGERS AND ACQUISITIONS OF TOP SPORTS MEDICINE COMPANIES, 2010 TO SEPTEMBER 2014</i>	45
CHAPTER 6 MARKET ANALYSIS	51
MARKET BY TYPE	51
MARKET OVERVIEW	52
MARKET REVENUE	54
<i>TABLE 13 GLOBAL REVENUE OF SPORTS MEDICINE BY TYPE, THROUGH 2019 (\$ MILLIONS)</i>	55
<i>FIGURE 1 GLOBAL REVENUE FOR SPORTS MEDICINE BY TYPE, THROUGH 2019 (\$ MILLIONS)</i>	55
MARKET SHARE	56
<i>TABLE 14 MARKET SHARE OF SPORTS MEDICINE BY TYPE, 2013 (%)</i>	56
<i>FIGURE 2 MARKET SHARE OF SPORTS MEDICINE BY TYPE, 2013 (%)</i>	56
MARKET BY REGION	56
MARKET OVERVIEW	57
MARKET REVENUE	58
<i>TABLE 15 GLOBAL REVENUE FOR SPORTS MEDICINE BY REGION, THROUGH 2019 (\$ MILLIONS)</i>	59
<i>FIGURE 3 GLOBAL REVENUE FOR SPORTS MEDICINE BY REGION, 2012-2019 (\$ MILLIONS)</i>	59
MARKET SHARE	59
<i>TABLE 16 MARKET SHARE OF SPORTS MEDICINE BY REGION, 2013 (%)</i>	60

TOPIC	PAGE NO.
<i>FIGURE 4 MARKET SHARE OF SPORTS MEDICINE BY REGION, 2013 (%)</i>	60
BODY RECONSTRUCTION AND REPAIR	60
MARKET OVERVIEW	61
MARKET REVENUE	62
<i>TABLE 17 GLOBAL REVENUE FOR BODY RECONSTRUCTION AND REPAIR BY REGION, THROUGH 2019 (\$ MILLIONS)</i>	62
<i>FIGURE 5 GLOBAL REVENUE FOR BODY RECONSTRUCTION AND REPAIR BY REGION, THROUGH 2019 (\$ MILLIONS)</i>	63
BODY SUPPORT AND RECOVERY	63
MARKET OVERVIEW	64
MARKET REVENUE	65
<i>TABLE 18 GLOBAL REVENUE FOR BODY SUPPORT AND RECOVERY BY REGION, THROUGH 2019 (\$ MILLIONS)</i>	65
<i>FIGURE 6 GLOBAL REVENUE FOR BODY SUPPORT AND RECOVERY BY REGION, 2012-2019 (\$ MILLIONS)</i>	66
MONITORING DEVICES	66
MARKET OVERVIEW	66
MARKET REVENUE	67
<i>TABLE 19 GLOBAL REVENUE FOR MONITORING DEVICES BY REGION, THROUGH 2019 (\$ MILLIONS)</i>	67
<i>FIGURE 7 GLOBAL REVENUE FOR MONITORING DEVICES, 2012-2019 (\$ MILLIONS)</i>	68
ACCESSORIES	68
MARKET OVERVIEW	68
MARKET REVENUE	69
<i>TABLE 20 GLOBAL REVENUE FOR ACCESSORIES BY REGION, THROUGH 2019 (\$ MILLIONS)</i>	69
<i>FIGURE 8 GLOBAL REVENUE FOR ACCESSORIES BY REGION, 2012-2019 (\$ MILLIONS)</i>	69
PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS	70
MARKET OVERVIEW	70
MARKET REVENUE	71
<i>TABLE 21 GLOBAL REVENUE FOR PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS BY REGION, THROUGH 2019 (\$ MILLIONS)</i>	72
<i>FIGURE 9 GLOBAL REVENUE FOR PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS BY REGION, 2012-2019 (\$ MILLIONS)</i>	72
CHAPTER 7 MARKET APPLICATIONS	74
GLOBAL SPORTS MEDICINE MARKET BY APPLICATION	74
<i>TABLE 22 GLOBAL REVENUE FOR SPORTS MEDICINE BY APPLICATION, THROUGH 2019 (\$ MILLIONS)</i>	75
<i>FIGURE 10 GLOBAL REVENUE FOR SPORTS MEDICINE BY APPLICATION, 2012-2019 (\$ MILLIONS)</i>	75
MARKET SHARE	76
<i>TABLE 23 MARKET SHARE FOR SPORTS MEDICINE BY APPLICATION, 2013 (%)</i>	76
<i>FIGURE 11 MARKET SHARE FOR SPORTS MEDICINE BY APPLICATION, 2013 (%)</i>	76
SPORTS MEDICINE FOR SHOULDER APPLICATION	77
<i>TABLE 24 VARIOUS TYPES OF SHOULDER INJURIES</i>	77
MARKET OVERVIEW	78
MARKET REVENUE	79

TOPIC	PAGE NO.
<i>TABLE 25 GLOBAL REVENUE FOR SPORTS MEDICINE BY SHOULDER APPLICATION, THROUGH 2019 (\$ MILLIONS)</i>	80
<i>FIGURE 12 GLOBAL REVENUE FOR SPORTS MEDICINE BY SHOULDER APPLICATION, 2012-2019 (\$ MILLIONS)</i>	80
SPORTS MEDICINE FOR KNEE APPLICATION	81
BONES AND CARTILAGE IN THE KNEE JOINT	81
TENDONS AND LIGAMENTS IN THE KNEE JOINT	81
<i>TABLE 26 VARIOUS TYPES OF KNEE INJURIES</i>	81
MARKET OVERVIEW	82
MARKET REVENUE	84
<i>TABLE 27 GLOBAL REVENUE FOR SPORTS MEDICINE BY KNEE APPLICATION, THROUGH 2019 (\$ MILLIONS)</i>	85
<i>FIGURE 13 GLOBAL REVENUE FOR SPORTS MEDICINE BY KNEE APPLICATION, 2012-2019 (\$ MILLIONS)</i>	85
SPORTS MEDICINES FOR HIP APPLICATION	86
<i>TABLE 28 VARIOUS TYPES OF HIP INJURIES</i>	86
MARKET OVERVIEW	87
MARKET REVENUE	88
<i>TABLE 29 GLOBAL REVENUE FOR SPORTS MEDICINE BY HIP APPLICATION, THROUGH 2019 (\$ MILLIONS)</i>	89
<i>FIGURE 14 GLOBAL REVENUE FOR SPORTS MEDICATION BY HIP APPLICATION, 2012-2019 (\$ MILLIONS)</i>	89
SPORTS MEDICINES FOR FOOT AND ANKLE APPLICATION	90
<i>TABLE 30 VARIOUS TYPES OF FOOT AND ANKLE INJURIES</i>	91
MARKET OVERVIEW	92
MARKET REVENUE	93
<i>TABLE 31 GLOBAL REVENUE FOR SPORTS MEDICINE BY FOOT AND ANKLE APPLICATION, THROUGH 2019 (\$ MILLIONS)</i>	94
<i>FIGURE 15 GLOBAL REVENUE FOR SPORTS MEDICINE BY FOOT AND ANKLE APPLICATION, THROUGH 2019 (\$ MILLIONS)</i>	94
SPORTS MEDICINE FOR ELBOW AND WRIST APPLICATION	95
ELBOW	95
WRIST	95
<i>TABLE 32 VARIOUS TYPES OF ELBOW AND WRIST INJURIES</i>	95
MARKET OVERVIEW	96
MARKET REVENUE	97
<i>TABLE 33 GLOBAL REVENUE FOR SPORTS MEDICINE BY ELBOW AND WRIST APPLICATION, THROUGH 2019 (\$ MILLIONS)</i>	97
<i>FIGURE 16 GLOBAL REVENUE FOR SPORTS MEDICINE BY ELBOW AND WRIST APPLICATION, 2012-2019 (\$ MILLIONS)</i>	98
SPORTS MEDICINE FOR OTHERS APPLICATION CATEGORY	98
MONITORING DEVICES	98
PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS	99
TRAUMA REPAIR DEVICES	99
FRACTURES	99
<i>TABLE 34 VARIOUS TYPES OF FRACTURES</i>	100
MARKET OVERVIEW	100
MARKET REVENUE	101
<i>TABLE 35 GLOBAL REVENUE FOR SPORTS MEDICINE FOR OTHERS APPLICATION, THROUGH 2019 (\$ MILLIONS)</i>	102

TOPIC	PAGE NO.
<i>FIGURE 17 GLOBAL REVENUE FOR SPORTS MEDICINE FOR OTHERS APPLICATION, 2012-2019 (\$ MILLIONS)</i>	102
CHAPTER 8 INDUSTRY STRUCTURE	105
BODY RECONSTRUCTION AND REPAIR	105
MARKET LEADERS	105
<i>TABLE 36 LEADING MANUFACTURERS/SUPPLIERS OF BODY RECONSTRUCTION AND REPAIR DEVICES, 2013</i>	105
MARKET SHARE	107
<i>TABLE 37 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR BODY RECONSTRUCTION AND REPAIR, 2013 (%)</i>	107
<i>FIGURE 18 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR BODY RECONSTRUCTION AND REPAIR, 2013 (%)</i>	107
BODY SUPPORT AND RECOVERY	108
MARKET LEADERS	108
<i>TABLE 38 LEADING MANUFACTURERS/SUPPLIERS OF BODY SUPPORT AND RECOVERY DEVICES, 2013</i>	108
MARKET SHARE	109
<i>TABLE 39 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR BODY SUPPORT AND RECOVERY, 2013 (%)</i>	110
<i>FIGURE 19 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR BODY SUPPORT AND RECOVERY, 2013 (%)</i>	110
MONITORING DEVICES	111
MARKET LEADERS	111
<i>TABLE 40 LEADING MANUFACTURERS/SUPPLIERS OF MONITORING DEVICES, 2013</i>	111
MARKET SHARE	111
<i>TABLE 41 MARKET SHARE OF MANUFACTURERS/SUPPLIERS OF MONITORING DEVICES, 2013 (%)</i>	111
<i>FIGURE 20 MARKET SHARE OF MANUFACTURERS/SUPPLIERS OF MONITORING DEVICES, 2013 (%)</i>	111
ACCESSORIES	112
MARKET LEADERS	112
<i>TABLE 42 LEADING MANUFACTURERS/SUPPLIERS OF ACCESSORIES, 2013</i>	112
MARKET SHARE	112
<i>TABLE 43 MARKET SHARE OF MANUFACTURERS/SUPPLIERS OF ACCESSORIES, 2013 (%)</i>	113
<i>FIGURE 21 MARKET SHARE OF MANUFACTURERS/SUPPLIERS OF ACCESSORIES, 2013 (%)</i>	113
PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS	114
MARKET LEADERS	114
<i>TABLE 44 LEADING MANUFACTURERS/SUPPLIERS OF PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS, 2013</i>	114
MARKET SHARE	114
<i>TABLE 45 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS, 2013 (%)</i>	115
<i>FIGURE 22 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS, 2013 (%)</i>	115
CHAPTER 9 PATENT ANALYSIS	118
PATENTS BY YEAR	118

TOPIC	PAGE NO.
<i>TABLE 46 NUMBER OF PATENTS BY YEAR, 2010 TO SEPTEMBER 2014</i>	119
<i>FIGURE 23 NUMBER OF PATENTS BY YEAR, 2010 TO SEPTEMBER 2014</i>	119
PATENTS BY TYPE	119
<i>TABLE 47 NUMBER OF PATENTS BY TYPE, 2010 TO SEPTEMBER 2014</i>	119
<i>FIGURE 24 NUMBER OF PATENTS BY TYPE, 2010 TO SEPTEMBER 2014</i>	120
PATENTS BY COMPANY	120
<i>TABLE 48 NUMBER OF PATENTS BY COMPANY, 2010 TO SEPTEMBER 2014</i>	121
PATENTS BY COUNTRY	124
<i>TABLE 49 NUMBER OF PATENTS BY COUNTRY, 2010 TO SEPTEMBER 2014</i>	124
<i>TABLE 50 PATENT SHARES BY COUNTRY, 2010 TO SEPTEMBER 2014</i>	125
PATENTS BY ASSIGNEE	125
<i>TABLE 51 NUMBER OF PATENTS BY ASSIGNEE, 2010 TO SEPTEMBER 2014</i>	125
CHAPTER 10 CURRENT SITUATION	127
FACTORS AFFECTING SPORTS MEDICINE	127
DRIVERS OF SPORTS MEDICINE	127
Globalization of Western Sports	127
Economic Growth	128
Advances in Technologies	128
Increase in Incidence of Soft Tissue Injuries	128
New Product Launches	128
RESTRAINTS AND CHALLENGES OF THE MARKET	129
Lack of Trained Professionals	129
Product Prices	129
Reimbursement Policies	129
Regulatory Pressures	129
Mergers and Acquisitions	130
OPPORTUNITIES	130
CURRENT ISSUES	130
STERIODS	130
Commonly Used Steroids	131
<i>TABLE 52 COMMON ANABOLIC STEROIDS</i>	132
Administration of Steroids in Athletes	132
Health Risks of Steroid Abuse	132
CURTAILING DRUG ABUSE	133
CHAPTER 11 COMPANY PROFILES	135
ARTHREX	135
ARTHROCARE	135
BAYER HEALTHCARE PHARMACEUTICALS	136
BIOMET	136
BAUERFEIND	137
BIRD & CRONIN	137
BREG	138
BSN MEDICAL GMBH	138
CAYENNE MEDICAL	139
CHO-PAT	139

TOPIC	PAGE NO.
CONMED	140
COVIDIEN	140
CRAMER SPORTS MEDICINE	141
DAIICHI SANKYO	141
DEPUY SYNTHES	142
DJO GLOBAL	142
DR. SCHOLL'S	143
FH ORTHOPEDICS	143
GLAXOSMITHKLINE	144
HORIZON PHARMA	144
JOHNSON & JOHNSON	145
MCDAVID INC.	145
MEDCO SPORTS MEDICINE	146
MUELLER SPORTS MEDICINE	146
NOVARTIS	147
ORTEQ	147
ORTHOFIX	148
OSSUR HF	148
OTTOBOCK HEALTHCARE GMBH	149
PFIZER INC.	149
SHOCK DOCTOR	150
SIGVARIS MANAGEMENT AG	150
SMITH & NEPHEW	150
STRYKER	151
TORNIER	152
WRIGHT MEDICAL TECHNOLOGY	152
XIROS	153
ZIMMER HOLDINGS	153
CHAPTER 12 APPENDIX 1----- ABBREVIATIONS	155

LIST OF TABLES

TABLE HEADING	PAGE NO.
SUMMARY TABLE GLOBAL MARKET FOR SPORTS MEDICINE, THROUGH 2019 (\$ MILLIONS)	8
TABLE 1 EVOLUTION OF SPORTS MEDICINE, 1950-1992	11
TABLE 2 NEW APPROVALS OF SPORTS MEDICINE DEVICES BY PREMARKET APPROVAL, 2010 - SEPTEMBER 2014	27
TABLE 3 NEW APPROVAL OF DEVICES BY 510(K) CLEARANCES, 2014	28
TABLE 4 NEW APPROVALS OF DEVICES BY 510(K) CLEARANCE, 2013	29
TABLE 5 NEW APPROVALS OF DEVICES BY 510(K) CLEARANCE, 2012	31
TABLE 6 NEW APPROVALS OF DEVICES BY 510(K) CLEARANCE, 2011	32
TABLE 7 NEW APPROVALS OF DEVICES BY 510(K) CLEARANCE, 2010	33
TABLE 8 NEW APPROVALS IN NONSTEROIDAL ANTI-INFLAMMATORY DRUGS USED IN SPORTS MEDICINE, 2010 TO SEPTEMBER 2014	34
TABLE 9 RECALLS OF DEVICES, 2010 TO SEPTEMBER 2014	35
TABLE 10 RECALLS OF NONSTEROIDAL ANTI-INFLAMMATORY DRUGS, 2010 TO SEPTEMBER 2014	36
TABLE 11 SAFETY ALERTS FOR SPORTS MEDICINE, 2010 TO SEPTEMBER 2014	38
TABLE 12 MERGERS AND ACQUISITIONS OF TOP SPORTS MEDICINE COMPANIES, 2010 TO SEPTEMBER 2014	45
TABLE 13 GLOBAL REVENUE OF SPORTS MEDICINE BY TYPE, THROUGH 2019 (\$ MILLIONS)	55
TABLE 14 MARKET SHARE OF SPORTS MEDICINE BY TYPE, 2013 (%)	56
TABLE 15 GLOBAL REVENUE FOR SPORTS MEDICINE BY REGION, THROUGH 2019 (\$ MILLIONS)	59
TABLE 16 MARKET SHARE OF SPORTS MEDICINE BY REGION, 2013 (%)	60
TABLE 17 GLOBAL REVENUE FOR BODY RECONSTRUCTION AND REPAIR BY REGION, THROUGH 2019 (\$ MILLIONS)	62
TABLE 18 GLOBAL REVENUE FOR BODY SUPPORT AND RECOVERY BY REGION, THROUGH 2019 (\$ MILLIONS)	65
TABLE 19 GLOBAL REVENUE FOR MONITORING DEVICES BY REGION, THROUGH 2019 (\$ MILLIONS)	67
TABLE 20 GLOBAL REVENUE FOR ACCESSORIES BY REGION, THROUGH 2019 (\$ MILLIONS)	69
TABLE 21 GLOBAL REVENUE FOR PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS BY REGION, THROUGH 2019 (\$ MILLIONS)	72
TABLE 22 GLOBAL REVENUE FOR SPORTS MEDICINE BY APPLICATION, THROUGH 2019 (\$ MILLIONS)	75
TABLE 23 MARKET SHARE FOR SPORTS MEDICINE BY APPLICATION, 2013 (%)	76
TABLE 24 VARIOUS TYPES OF SHOULDER INJURIES	77
TABLE 25 GLOBAL REVENUE FOR SPORTS MEDICINE BY SHOULDER APPLICATION, THROUGH 2019 (\$ MILLIONS)	80
TABLE 26 VARIOUS TYPES OF KNEE INJURIES	81
TABLE 27 GLOBAL REVENUE FOR SPORTS MEDICINE BY KNEE APPLICATION, THROUGH 2019 (\$ MILLIONS)	85
TABLE 28 VARIOUS TYPES OF HIP INJURIES	86
TABLE 29 GLOBAL REVENUE FOR SPORTS MEDICINE BY HIP APPLICATION, THROUGH 2019 (\$ MILLIONS)	89
TABLE 30 VARIOUS TYPES OF FOOT AND ANKLE INJURIES	91
TABLE 31 GLOBAL REVENUE FOR SPORTS MEDICINE BY FOOT AND ANKLE APPLICATION, THROUGH 2019 (\$ MILLIONS)	94
TABLE 32 VARIOUS TYPES OF ELBOW AND WRIST INJURIES	95

TABLE HEADING	PAGE NO.
TABLE 33 GLOBAL REVENUE FOR SPORTS MEDICINE BY ELBOW AND WRIST APPLICATION, THROUGH 2019 (\$ MILLIONS)	97
TABLE 34 VARIOUS TYPES OF FRACTURES	100
TABLE 35 GLOBAL REVENUE FOR SPORTS MEDICINE FOR OTHERS APPLICATION, THROUGH 2019 (\$ MILLIONS)	102
TABLE 36 LEADING MANUFACTURERS/SUPPLIERS OF BODY RECONSTRUCTION AND REPAIR DEVICES, 2013	105
TABLE 37 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR BODY RECONSTRUCTION AND REPAIR, 2013 (%)	107
TABLE 38 LEADING MANUFACTURERS/SUPPLIERS OF BODY SUPPORT AND RECOVERY DEVICES, 2013	108
TABLE 39 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR BODY SUPPORT AND RECOVERY, 2013 (%)	110
TABLE 40 LEADING MANUFACTURERS/SUPPLIERS OF MONITORING DEVICES, 2013	111
TABLE 41 MARKET SHARE OF MANUFACTURERS/SUPPLIERS OF MONITORING DEVICES, 2013 (%)	111
TABLE 42 LEADING MANUFACTURERS/SUPPLIERS OF ACCESSORIES, 2013	112
TABLE 43 MARKET SHARE OF MANUFACTURERS/SUPPLIERS OF ACCESSORIES, 2013 (%)	113
TABLE 44 LEADING MANUFACTURERS/SUPPLIERS OF PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS, 2013	114
TABLE 45 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS, 2013 (%)	115
TABLE 46 NUMBER OF PATENTS BY YEAR, 2010 TO SEPTEMBER 2014	119
TABLE 47 NUMBER OF PATENTS BY TYPE, 2010 TO SEPTEMBER 2014	119
TABLE 48 NUMBER OF PATENTS BY COMPANY, 2010 TO SEPTEMBER 2014	121
TABLE 49 NUMBER OF PATENTS BY COUNTRY, 2010 TO SEPTEMBER 2014	124
TABLE 50 PATENT SHARES BY COUNTRY, 2010 TO SEPTEMBER 2014	125
TABLE 51 NUMBER OF PATENTS BY ASSIGNEE, 2010 TO SEPTEMBER 2014	125
TABLE 52 COMMON ANABOLIC STEROIDS	132

LIST OF FIGURES

FIGURE TITLE	PAGE NO.
SUMMARY FIGURE GLOBAL MARKET FOR SPORTS MEDICINE, 2012-2019 (\$ MILLIONS)	8
FIGURE 1 GLOBAL REVENUE FOR SPORTS MEDICINE BY TYPE, THROUGH 2019 (\$ MILLIONS)	55
FIGURE 2 MARKET SHARE OF SPORTS MEDICINE BY TYPE, 2013 (%)	56
FIGURE 3 GLOBAL REVENUE FOR SPORTS MEDICINE BY REGION, 2012-2019 (\$ MILLIONS)	59
FIGURE 4 MARKET SHARE OF SPORTS MEDICINE BY REGION, 2013 (%)	60
FIGURE 5 GLOBAL REVENUE FOR BODY RECONSTRUCTION AND REPAIR BY REGION, THROUGH 2019 (\$ MILLIONS)	63
FIGURE 6 GLOBAL REVENUE FOR BODY SUPPORT AND RECOVERY BY REGION, 2012-2019 (\$ MILLIONS)	66
FIGURE 7 GLOBAL REVENUE FOR MONITORING DEVICES, 2012-2019 (\$ MILLIONS)	68
FIGURE 8 GLOBAL REVENUE FOR ACCESSORIES BY REGION, 2012-2019 (\$ MILLIONS)	69
FIGURE 9 GLOBAL REVENUE FOR PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS BY REGION, 2012-2019 (\$ MILLIONS)	72
FIGURE 10 GLOBAL REVENUE FOR SPORTS MEDICINE BY APPLICATION, 2012-2019 (\$ MILLIONS)	75
FIGURE 11 MARKET SHARE FOR SPORTS MEDICINE BY APPLICATION, 2013 (%)	76
FIGURE 12 GLOBAL REVENUE FOR SPORTS MEDICINE BY SHOULDER APPLICATION, 2012-2019 (\$ MILLIONS)	80
FIGURE 13 GLOBAL REVENUE FOR SPORTS MEDICINE BY KNEE APPLICATION, 2012-2019 (\$ MILLIONS)	85
FIGURE 14 GLOBAL REVENUE FOR SPORTS MEDICATION BY HIP APPLICATION, 2012-2019 (\$ MILLIONS)	89
FIGURE 15 GLOBAL REVENUE FOR SPORTS MEDICINE BY FOOT AND ANKLE APPLICATION, THROUGH 2019 (\$ MILLIONS)	94
FIGURE 16 GLOBAL REVENUE FOR SPORTS MEDICINE BY ELBOW AND WRIST APPLICATION, 2012-2019 (\$ MILLIONS)	98
FIGURE 17 GLOBAL REVENUE FOR SPORTS MEDICINE FOR OTHERS APPLICATION, 2012-2019 (\$ MILLIONS)	102
FIGURE 18 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR BODY RECONSTRUCTION AND REPAIR, 2013 (%)	107
FIGURE 19 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR BODY SUPPORT AND RECOVERY, 2013 (%)	110
FIGURE 20 MARKET SHARE OF MANUFACTURERS/SUPPLIERS OF MONITORING DEVICES, 2013 (%)	111
FIGURE 21 MARKET SHARE OF MANUFACTURERS/SUPPLIERS OF ACCESSORIES, 2013 (%)	113
FIGURE 22 MARKET SHARE OF MANUFACTURERS/SUPPLIERS FOR PAINKILLERS/NONSTEROIDAL ANTI-INFLAMMATORY DRUGS, 2013 (%)	115
FIGURE 23 NUMBER OF PATENTS BY YEAR, 2010 TO SEPTEMBER 2014	119
FIGURE 24 NUMBER OF PATENTS BY TYPE, 2010 TO SEPTEMBER 2014	120