Convenience Sample Summary Report

NATIONAL HIGH SCHOOL SPORTS-RELATED INJURY SURVEILLANCE STUDY

2024-25 School Year

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High School RIO™

High School Sports-Related Injury Surveillance Study

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NOTE

The analyses presented here provide only a brief summary of collected data, with the feasibility of a more detailed presentation limited by the extensive breadth and detail contained in the dataset. The Principal Investigator, Christy Collins, PhD, is happy to provide further information or to discuss research partnership opportunities upon request. Data contained within these reports should not be published in any form without permission from the Principal Investigator.

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REPORTING INFORMATION ONLINE

CONTENTS

I. INTRODUCTION & METHODOLOGY 10
1.1 PROJECT OVERVIEW 11
1.2 BACKGROUND AND SIGNIFICANCE 11
1.3 SPECIFIC AIMS 12
1.4 PROJECT DESIGN 12
1.5 SAMPLE RECRUITMENT 13
1.6 DATA COLLECTION 14
1.7 DATA MANAGEMENT 14
1.8 DATA ANALYSIS 14
II. OVERALL INJURY EPIDEMIOLOGY 15
Table 2.1 Injury Rates by Sport and Type of Exposure 16
Table 2.2 Proportion of Injuries Resulting in Time Loss 19
Table 2.3 Demographic Characteristics of Injured Athletes by Sex 20
Figure 2.1 Injury Diagnosis by Type of Exposure 21
Table 2.4 Body Site of Injury by Type of Exposure 21
Table 2.5 Most Commonly Injured Ankle Structures 22
Table 2.6 Most Commonly Injured Knee Structures 22
Table 2.7 Ten Most Common Injury Diagnoses by Type of Exposure 23
Figure 2.2 Time Loss by Type of Exposure 23
Table 2.8 Injuries Requiring Surgery by Type of Exposure 24
Figure 2.3 New and Recurring Injuries by Type of Exposure 24
Table 2.9 Time during Season of Injury 25
Table 2.10 Practice-Related Variables 25
Table 2.11 Methods for Injury Evaluation and Assessment 26
III. BOYS' FOOTBALL INJURY EPIDEMIOLOGY 27
Table 3.1 Football Injury Rates by Type of Exposure 28
Table 3.2 Demographic Characteristics of Injured Football Athletes 28
Figure 3.1 Diagnosis of Football Injuries by Type of Exposure 29
Table 3.3 Body Site of Football Injuries by Type of Exposure 29
Table 3.4 Ten Most Common Football Injury Diagnoses by Type of Exposure 30
Figure 3.2 Time Loss of Football Injuries by Type of Exposure 30
Table 3.5 Football Injuries Requiring Surgery by Type of Exposure 31
Figure 3.3 History of Football Injuries by Type of Exposure 31
Table 3.6 Time during Season of Football Injuries 32
Table 3.7 Competition-Related Variables for Football Injuries 32
Table 3.8 Practice-Related Variables for Football Injuries 33
Figure 3.4 Player Position of Football Injuries by Type of Exposure 33
Table 3.9 Activities Leading to Football Injuries by Type of Exposure 34
Table 3.10 Activity Resulting in Football Injuries by Injury Diagnosis 35
IV. BOYS' SOCCER INJURY EPIDEMIOLOGY 36
Table 4.1 Boys' Soccer Injury Rates by Type of Exposure 37
Table 4.2 Demographic Characteristics of Injured Boys' Soccer Athletes 37
Figure 4.1 Diagnosis of Boys' Soccer Injuries by Type of Exposure 38
Table 4.3 Body Site of Boys' Soccer Injuries by Type of Exposure 38
Table 4.4 Ten Most Common Boys' Soccer Injury Diagnoses by Type of Exposure 39
Figure 4.2 Time Loss of Boys' Soccer Injuries by Type of Exposure 39
Table 4.5 Boys' Soccer Injuries Requiring Surgery by Type of Exposure 40
Figure 4.3 History of Boys' Soccer Injuries by Type of Exposure 40
Table 4.6 Time during Season of Boys' Soccer Injuries 41
Table 4.7 Competition-Related Variables for Boys' Soccer Injuries 41
Table 4.8 Practice-Related Variables for Boys' Soccer Injuries 42
Figure 4.4 Player Position of Boys' Soccer Injuries by Type of Exposure 42
Table 4.9 Activities Leading to Boys' Soccer Injuries by Type of Exposure 43
Table 4.10 Activity Resulting in Boys' Soccer Injuries by Injury Diagnosis 44

V. GIRLS' SOCCER INJURY EPIDEMIOLOGY 45
Table 5.1 Girls' Soccer Injury Rates by Type of Exposure 46
Table 5.2 Demographic Characteristics of Injured Girls' Soccer Athletes 46
Figure 5.1 Diagnosis of Girls' Soccer Injuries by Type of Exposure 47
Table 5.3 Body Site of Girls' Soccer Injuries by Type of Exposure 47
Table 5.4 Ten Most Common Girls' Soccer Injury Diagnoses by Type of Exposure 48
Figure 5.2 Time Loss of Girls' Soccer Injuries by Type of Exposure 48
Table 5.5 Girls' Soccer Injuries Requiring Surgery by Type of Exposure 49
Figure 5.3 History of Girls' Soccer Injuries by Type of Exposure 49
Table 5.6 Time during Season of Girls' Soccer Injuries 50
Table 5.7 Competition-Related Variables for Girls' Soccer Injuries 50
Table 5.8 Practice-Related Variables for Girls' Soccer Injuries 51
Figure 5.4 Player Position of Girls' Soccer Injuries by Type of Exposure 51
Table 5.9 Activities Leading to Girls' Soccer Injuries by Type of Exposure 52
Table 5.10 Activity Resulting in Girls' Soccer Injuries by Injury Diagnosis 53
VI. GIRLS' VOLLEYBALL INJURY EPIDEMIOLOGY 54
Table 6.1 Girls' Volleyball Injury Rates by Type of Exposure 55
Table 6.2 Demographic Characteristics of Injured Girls' Volleyball Athletes 55
Figure 6.1 Diagnosis of Girls' Volleyball Injuries by Type of Exposure 56
Table 6.3 Body Site of Girls' Volleyball Injuries by Type of Exposure 56
Table 6.4 Ten Most Common Girls' Volleyball Injury Diagnoses by Type of Exposure 57
Figure 6.2 Time Loss of Girls' Volleyball Injuries by Type of Exposure 57
Table 6.5 Girls' Volleyball Injuries Requiring Surgery by Type of Exposure 58
Figure 6.3 History of Girls' Volleyball Injuries by Type of Exposure 58
Table 6.6 Time during Season of Girls' Volleyball Injuries 59
Table 6.7 Competition-Related Variables for Girls' Volleyball Injuries 59
Table 6.8 Practice-Related Variables for Girls' Volleyball Injuries 60
Figure 6.4 Player Position of Girls' Volleyball Injuries by Type of Exposure 60
Table 6.9 Activities Leading to Girls' Volleyball Injuries by Type of Exposure 61
Table 6.10 Activity Resulting in Girls' Volleyball Injuries by Injury Diagnosis 62
VII. BOYS' BASKETBALL INJURY EPIDEMIOLOGY 63
Table 7.1 Boys' Basketball Injury Rates by Type of Exposure 64
Table 7.2 Demographic Characteristics of Injured Boys' Basketball Athletes 64
Figure 7.1 Diagnosis of Boys' Basketball Injuries by Type of Exposure 65
Table 7.3 Body Site of Boys' Basketball Injuries by Type of Exposure 65
Table 7.4 Ten Most Common Boys' Basketball Injury Diagnoses by Type of Exposure 66
Figure 7.2 Time Loss of Boys' Basketball Injuries by Type of Exposure 66
Table 7.5 Boys' Basketball Injuries Requiring Surgery by Type of Exposure 67
Figure 7.3 History of Boys' Basketball Injuries by Type of Exposure 67
Table 7.6 Time during Season of Boys' Basketball Injuries 67
Table 7.7 Competition-Related Variables for Boys' Basketball Injuries 68
Table 7.8 Practice-Related Variables for Boys' Basketball Injuries 69
Figure 7.4 Player Position of Boys' Basketball Injuries by Type of Exposure 69
Table 7.9 Activities Leading to Boys' Basketball Injuries by Type of Exposure 70
Table 7.10 Activity Resulting in Boys' Basketball Injuries by Injury Diagnosis 71
VIII. GIRLS' BASKETBALL INJURY EPIDEMIOLOGY 72
Table 8.1 Girls' Basketball Injury Rates by Type of Exposure 73
Table 8.2 Demographic Characteristics of Injured Girls' Basketball Athletes 73
Figure 8.1 Diagnosis of Girls' Basketball Injuries by Type of Exposure 74
Table 8.3 Body Site of Girls' Basketball Injuries by Type of Exposure 74
Table 8.4 Ten Most Common Girls' Basketball Injury Diagnoses by Type of Exposure 75
Figure 8.2 Time Loss of Girls' Basketball Injuries by Type of Exposure 75
Table 8.5 Girls' Basketball Injuries Requiring Surgery by Type of Exposure 76
Figure 8.3 History of Girls' Basketball Injuries by Type of Exposure 76
Table 8.6 Time during Season of Girls' Basketball Injuries 76
Table 8.7 Competition-Related Variables for Girls' Basketball Injuries 77

Table 8.8 Practice-Related Variables for Girls' Basketball Injuries 78
Figure 8.4 Player Position of Girls' Basketball Injuries by Type of Exposure 78
Table 8.9 Activities Leading to Girls' Basketball Injuries by Type of Exposure 79
Table 8.10 Activity Resulting in Girls' Basketball Injuries by Injury Diagnosis 80
IX. Boys' Wrestling Injury Epidemiology 81
Table 9.1 Boys' Wrestling Injury Rates by Type of Exposure 82
Table 9.2 Demographic Characteristics of Injured Boys' Wrestling Athletes 82
Figure 9.1 Diagnosis of Boys' Wrestling Injuries by Type of Exposure 83
Table 9.3 Body Site of Boys' Wrestling Injuries by Type of Exposure 83
Table 9.4 Ten Most Common Boys' Wrestling Injury Diagnoses by Type of Exposure 84
Figure 9.2 Time Loss of Boys' Wrestling Injuries by Type of Exposure 84
Table 9.5 Boys' Wrestling Injuries Requiring Surgery by Type of Exposure 85
Figure 9.3 History of Boys' Wrestling Injuries by Type of Exposure 85
Table 9.6 Time during Season of Boys' Wrestling Injuries 85
Table 9.7 Competition-Related Variables for Boys' Wrestling Injuries 86
Table 9.8 Practice-Related Variables for Boys' Wrestling Injuries 86
Table 9.9 Activities Leading to Boys' Wrestling Injuries by Type of Exposure 87
Table 9.10 Activity Resulting in Boys' Wrestling Injuries by Injury Diagnosis 88
X. Girls' Wrestling Injury Epidemiology 89
Table 10.1 Girls' Wrestling Injury Rates by Type of Exposure 90
Table 10.2 Demographic Characteristics of Injured Girls' Wrestling Athletes 90
Figure 10.1 Diagnosis of Girls' Wrestling Injuries by Type of Exposure 91
Table 10.3 Body Site of Girls' Wrestling Injuries by Type of Exposure 91
Table 10.4 Ten Most Common Girls' Wrestling Injury Diagnoses by Type of Exposure 92
Figure 10.2 Time Loss of Girls' Wrestling Injuries by Type of Exposure 92
Table 10.5 Girls' Wrestling Injuries Requiring Surgery by Type of Exposure 93
Figure 10.3 History of Girls' Wrestling Injuries by Type of Exposure 93
Table 10.6 Time during Season of Girls' Wrestling Injuries 93
Table 10.7 Competition-Related Variables for Girls' Wrestling Injuries 94
Table 10.8 Practice-Related Variables for Girls' Wrestling Injuries 94
Table 10.9 Activities Leading to Girls' Wrestling Injuries by Type of Exposure 95
Table 10.10 Activity Resulting in Girls' Wrestling Injuries by Injury Diagnosis 96
XI. Boys' Baseball Injury Epidemiology 97
Table 11.1 Boys' Baseball Injury Rates by Type of Exposure 98
Table 11.2 Demographic Characteristics of Injured Boys' Baseball Athletes 98
Figure 11.1 Diagnosis of Boys' Baseball Injuries by Type of Exposure 99
Table 11.3 Body Site of Boys' Baseball Injuries by Type of Exposure 99
Table 11.4 Ten Most Common Boys' Baseball Injury Diagnoses by Type of Exposure 100
Figure 11.2 Time Loss of Boys' Baseball Injuries by Type of Exposure 100
Table 11.5 Boys' Baseball Injuries Requiring Surgery by Type of Exposure 101
Figure 11.3 History of Boys' Baseball Injuries by Type of Exposure 101
Table 11.6 Time during Season of Boys' Baseball Injuries 101
Table 11.7 Competition-Related Variables for Boys' Baseball Injuries 102
Table 11.8 Practice-Related Variables for Boys' Baseball Injuries 103
Figure 11.4 Player Position of Boys' Baseball Injuries by Type of Exposure 103
Table 11.9 Activities Leading to Boys' Baseball Injuries by Type of Exposure 104
Table 11.10 Activity Resulting in Boys' Baseball Injuries by Injury Diagnosis 105
XII. Girls' Softball Injury Epidemiology 106
Table 12.1 Girls' Softball Injury Rates by Type of Exposure 107
Table 12.2 Demographic Characteristics of Injured Girls' Softball Athletes 107
Figure 12.1 Diagnosis of Girls' Softball Injuries by Type of Exposure 108
Table 12.3 Body Site of Girls' Softball Injuries by Type of Exposure 108
Table 12.4 Ten Most Common Girls' Softball Injury Diagnoses by Type of Exposure 109
Figure 12.2 Time Loss of Girls' Softball Injuries by Type of Exposure 109
Table 12.5 Girls' Softball Injuries Requiring Surgery by Type of Exposure 110
Figure 12.3 History of Girls' Softball Injuries by Type of Exposure 110

Table 12.6 Time during Season of Girls' Softball Injuries 110
Table 12.7 Competition-Related Variables for Girls' Softball Injuries 111
Table 12.8 Practice-Related Variables for Girls' Softball Injuries 112
Figure 12.4 Player Position of Girls' Softball Injuries by Type of Exposure 112
Table 12.9 Activities Leading to Girls' Softball Injuries by Type of Exposure 113
Table 12.10 Activity Resulting in Girls' Softball Injuries by Injury Diagnosis 114
XIII. Girls' Field Hockey Injury Epidemiology 115
Table 13.1 Girls' Field Hockey Injury Rates by Type of Exposure 116
Table 13.2 Demographic Characteristics of Injured Girls' Field Hockey Athletes 116
Figure 13.1 Diagnosis of Girls' Field Hockey Injuries by Type of Exposure 117
Table 13.3 Body Site of Girls' Field Hockey Injuries by Type of Exposure 117
Table 13.4 Ten Most Common Girls' Field Hockey Injury Diagnoses by Type of Exposure 118
Figure 13.2 Time Loss of Girls' Field Hockey Injuries by Type of Exposure 118
Table 13.5 Girls' Field Hockey Injuries Requiring Surgery by Type of Exposure 119
Figure 13.3 History of Girls' Field Hockey Injuries by Type of Exposure 119
Table 13.6 Time during Season of Girls' Field Hockey Injuries 120
Table 13.7 Competition-Related Variables for Girls' Field Hockey Injuries 120
Table 13.8 Practice-Related Variables for Girls' Field Hockey Injuries 121
Figure 13.4 Player Position of Girls' Field Hockey Injuries by Type of Exposure 121
Table 13.9 Activities Leading to Girls' Field Hockey Injuries by Type of Exposure 122
Table 13.10 Activity Resulting in Girls' Field Hockey Injuries by Injury Diagnosis 123
XIV. Boys' Ice Hockey Injury Epidemiology 124
Table 14.1 Boys' Ice Hockey Injury Rates by Type of Exposure 125
Table 14.2 Demographic Characteristics of Injured Boys' Ice Hockey Athletes 125
Figure 14.1 Diagnosis of Boys' Ice Hockey Injuries by Type of Exposure 126
Table 14.3 Body Site of Boys' Ice Hockey Injuries by Type of Exposure 126
Table 14.4 Ten Most Common Boys' Ice Hockey Injury Diagnoses by Type of Exposure 127
Figure 14.2 Time Loss of Boys' Ice Hockey Injuries by Type of Exposure 127
Table 14.5 Boys' Ice Hockey Injuries Requiring Surgery by Type of Exposure 128
Figure 14.3 History of Boys' Ice Hockey Injuries by Type of Exposure 128
Table 14.6 Time during Season of Boys' Ice Hockey Injuries 128
Table 14.7 Competition-Related Variables for Boys' Ice Hockey Injuries 129
Table 14.8 Practice-Related Variables for Boys' Ice Hockey Injuries 130
Figure 14.4 Player Position of Boys' Ice Hockey Injuries by Type of Exposure 130
Table 14.9 Activities Leading to Boys' Ice Hockey Injuries by Type of Exposure 131
Table 14.10 Activity Resulting in Boys' Ice Hockey Injuries by Injury Diagnosis 132
XV. Boys' Lacrosse Injury Epidemiology 133
Table 15.1 Boys' Lacrosse Injury Rates by Type of Exposure 134
Table 15.2 Demographic Characteristics of Injured Boys' Lacrosse Athletes 134
Figure 15.1 Diagnosis of Boys' Lacrosse Injuries by Type of Exposure 135
Table 15.3 Body Site of Boys' Lacrosse Injuries by Type of Exposure 135
Table 15.4 Ten Most Common Boys' Lacrosse Injury Diagnoses by Type of Exposure 136
Figure 15.2 Time Loss of Boys' Lacrosse Injuries by Type of Exposure 136
Table 15.5 Boys' Lacrosse Injuries Requiring Surgery by Type of Exposure 137
Figure 15.3 History of Boys' Lacrosse Injuries by Type of Exposure 137
Table 15.6 Time during Season of Boys' Lacrosse Injuries 137
Table 15.7 Competition-Related Variables for Boys' Lacrosse Injuries 138
Table 15.8 Practice-Related Variables for Boys' Lacrosse Injuries 139
Figure 15.4 Player Position of Boys' Lacrosse Injuries by Type of Exposure 139
Table 15.9 Activities Leading to Boys' Lacrosse Injuries by Type of Exposure 140
Table 15.10 Activity Resulting in Boys' Lacrosse Injuries by Injury Diagnosis 141
XVI. Girls' Lacrosse Injury Epidemiology 142
Table 16.1 Girls' Lacrosse Injury Rates by Type of Exposure 143
Table 16.2 Demographic Characteristics of Injured Girls' Lacrosse Athletes 143
Figure 16.1 Diagnosis of Girls' Lacrosse Injuries by Type of Exposure 144
Table 16.3 Body Site of Girls' Lacrosse Injuries by Type of Exposure 144

Table 16.4 Ten Most Common Girls' Lacrosse Injury Diagnoses by Type of Exposure 145
Figure 16.2 Time Loss of Girls' Lacrosse Injuries by Type of Exposure 145
Table 16.5 Girls' Lacrosse Injuries Requiring Surgery by Type of Exposure 146
Figure 16.3 History of Girls' Lacrosse Injuries by Type of Exposure 146
Table 16.6 Time during Season of Girls' Lacrosse Injuries 146
Table 16.7 Competition-Related Variables for Girls' Lacrosse Injuries 147
Table 16.8 Practice-Related Variables for Girls' Lacrosse Injuries 148
Figure 16.4 Player Position of Girls' Lacrosse Injuries by Type of Exposure 148
Table 16.9 Activities Leading to Girls' Lacrosse Injuries by Type of Exposure 149
Table 16.10 Activity Resulting in Girls' Lacrosse Injuries by Injury Diagnosis 150
XVII. Boys' Track and Field Injury Epidemiology 151
Table 17.1 Boys' Track and Field Injury Rates by Type of Exposure 152
Table 17.2 Demographic Characteristics of Injured Boys' Track and Field Athletes 152
Figure 17.1 Diagnosis of Boys' Track and Field Injuries by Type of Exposure 153
Table 17.3 Body Site of Boys' Track and Field Injuries by Type of Exposure 153
Table 17.4 Ten Most Common Boys' Track and Field Injury Diagnoses by Type of Exposure 154
Figure 17.2 Time Loss of Boys' Track and Field Injuries by Type of Exposure 154
Table 17.5 Boys' Track and Field Injuries Requiring Surgery by Type of Exposure 155
Figure 17.3 History of Boys' Track and Field Injuries by Type of Exposure 155
Table 17.6 Time during Season of Boys' Track and Field Injuries 155
Table 17.7 Practice-Related Variables for Boys' Track and Field Injuries 156
Table 17.8 Activities Leading to Boys' Track and Field Injuries by Type of Exposure 156
Table 17.9 Activity Resulting in Boys' Track and Field Injuries by Injury Diagnosis 157
XVIII. Girls' Track and Field Injury Epidemiology 158
Table 18.1 Girls' Track and Field Injury Rates by Type of Exposure 159
Table 18.2 Demographic Characteristics of Injured Girls' Track and Field Athletes 159
Figure 18.1 Diagnosis of Girls' Track and Field Injuries by Type of Exposure 160
Table 18.3 Body Site of Girls' Track and Field Injuries by Type of Exposure 160
Table 18.4 Ten Most Common Girls' Track and Field Injury Diagnoses by Type of Exposure 161
Figure 18.2 Time Loss of Girls' Track and Field Injuries by Type of Exposure 161
Table 18.5 Girls' Track and Field Injuries Requiring Surgery by Type of Exposure 162
Figure 18.3 History of Girls' Track and Field Injuries by Type of Exposure 162
Table 18.6 Time during Season of Girls' Track and Field Injuries 162
Table 18.7 Practice-Related Variables for Girls' Track and Field Injuries 163
Table 18.8 Activities Leading to Girls' Track and Field Injuries by Type of Exposure 163
Table 18.9 Activity Resulting in Girls' Track and Field Injuries by Injury Diagnosis 164
XIX. Boys' Cross Country Injury Epidemiology 165
Table 19.1 Boys' Cross Country Injury Rates by Type of Exposure 166
Table 19.2 Demographic Characteristics of Injured Boys' Cross Country Athletes 166
Figure 19.1 Diagnosis of Boys' Cross Country Injuries by Type of Exposure 167
Table 19.3 Body Site of Boys' Cross Country Injuries by Type of Exposure 167
Table 19.4 Ten Most Common Boys' Cross Country Injury Diagnoses by Type of Exposure 168
Figure 19.2 Time Loss of Boys' Cross Country Injuries by Type of Exposure 168
Table 19.5 Boys' Cross Country Injuries Requiring Surgery by Type of Exposure 169
Figure 19.3 History of Boys' Cross Country Injuries by Type of Exposure 169
Table 19.6 Time during Season of Boys' Cross Country Injuries 169
Table 19.7 Practice-Related Variables for Boys' Cross Country Injuries 170
Table 19.8 Activities Leading to Boys' Cross Country Injuries by Type of Exposure 170
Table 19.9 Activity Resulting in Boys' Cross Country Injuries by Injury Diagnosis 171
XX. Girls' Cross Country Injury Epidemiology 172
Table 20.1 Girls' Cross Country Injury Rates by Type of Exposure 173
Table 20.2 Demographic Characteristics of Injured Girls' Cross Country Athletes 173
Figure 20.1 Diagnosis of Girls' Cross Country Injuries by Type of Exposure 174
Table 20.3 Body Site of Girls' Cross Country Injuries by Type of Exposure 174
Table 20.4 Ten Most Common Girls' Cross Country Injury Diagnoses by Type of Exposure 175
Figure 20.2 Time Loss of Girls' Cross Country Injuries by Type of Exposure 175

Table 20.5 Girls' Cross Country Injuries Requiring Surgery by Type of Exposure 176
Figure 20.3 History of Girls' Cross Country Injuries by Type of Exposure 176
Table 20.6 Time during Season of Girls' Cross Country Injuries 176
Table 20.7 Practice-Related Variables for Girls' Cross Country Injuries 177
Table 20.8 Activities Leading to Girls' Cross Country Injuries by Type of Exposure 177
Table 20.9 Activity Resulting in Girls' Cross Country Injuries by Injury Diagnosis 178
XXI. Cheerleading Injury Epidemiology 179
Table 21.1 Cheerleading Injury Rates by Type of Exposure 180
Table 21.2 Demographic Characteristics of Injured Cheerleading Athletes 180
Figure 21.1 Diagnosis of Cheerleading Injuries by Type of Exposure 181
Table 21.3 Body Site of Cheerleading Injuries by Type of Exposure 181
Table 21.4 Ten Most Common Cheerleading Injury Diagnoses by Type of Exposure 182
Figure 21.2 Time Loss of Cheerleading Injuries by Type of Exposure 182
Table 21.5 Cheerleading Injuries Requiring Surgery by Type of Exposure 183
Figure 21.3 History of Cheerleading Injuries by Type of Exposure 183
Table 21.6 Time during Season of Cheerleading Injuries 183
Table 21.7 Practice-Related Variables for Cheerleading Injuries 184
Table 21.8 Activities Leading to Cheerleading Injuries by Type of Exposure 184
Table 21.9 Activity Resulting in Cheerleading Injuries by Injury Diagnosis 185
XXII. Gender Differences within Sports 186
22.1 Boys' and Girls' Soccer 187
Table 22.1 Comparison of Boys' and Girls' Soccer Injury Rates 187
Table 22.2 Comparison of Body Sites of Boys' and Girls' Soccer Injuries 187
Table 22.3 Comparison of Diagnoses of Boys' and Girls' Soccer Injuries 188
Table 22.4 Most Common Boys' and Girls' Soccer Injury Diagnoses 188
Table 22.5 Comparison of Time Loss of Boys' and Girls' Soccer Injuries 189
Table 22.6 Comparison of Mechanisms of Boys' and Girls' Soccer Injuries 189
Table 22.7 Comparison of Activities of Boys' and Girls' Soccer Injuries 190
22.2 Boys' and Girls' Basketball 191
Table 22.8 Comparison of Boys' and Girls' Basketball Injury Rates 191
Table 22.9 Comparison of Body Sites of Boys' and Girls' Basketball Injuries 191
Table 22.10 Comparison of Diagnoses of Boys' and Girls' Basketball Injuries 192
Table 22.11 Most Common Boys' and Girls' Basketball Injury Diagnoses 192
Table 22.12 Comparison of Time Loss of Boys' and Girls' Basketball Injuries 193
Table 22.13 Comparison of Mechanisms of Boys' and Girls' Basketball Injuries 193
Table 22.14 Comparison of Activities of Boys' and Girls' Basketball Injuries 194
22.3 Boys' and Girls' Wrestling 195
Table 22.15 Comparison of Boys' and Girls' Wrestling Injury Rates 195
Table 22.16 Comparison of Body Sites of Boys' and Girls' Wrestling Injuries 195
Table 22.17 Comparison of Diagnoses of Boys' and Girls' Wrestling Injuries 196
Table 22.18 Most Common Boys' and Girls' Wrestling Injury Diagnoses 196
Table 22.19 Comparison of Time Loss of Boys' and Girls' Wrestling Injuries 197
Table 22.20 Comparison of Mechanisms of Boys' and Girls' Wrestling Injuries 197
Table 22.21 Comparison of Activities of Boys' and Girls' Wrestling Injuries 198
22.4 Boys' Baseball and Girls' Softball 199
Table 22.22 Comparison of Baseball and Softball Injury Rates 199
Table 22.23 Comparison of Body Sites of Baseball and Softball Injuries 199
Table 22.24 Comparison of Diagnoses of Baseball and Softball Injuries 200
Table 22.25 Most Common Baseball and Softball Injury Diagnoses 200
Table 22.26 Comparison of Time Loss of Baseball and Softball Injuries 201
Table 22.27 Comparison of Mechanisms of Baseball and Softball Injuries 201
Table 22.28 Comparison of Activities of Baseball and Softball Injuries 202
22.5 Boys' and Girls' Track and Field 203
Table 22.29 Comparison of Boys' and Girls' Track and Field Injury Rates 203
Table 22.30 Comparison of Body Sites of Boys' and Girls' Track and Field Injuries 203
Table 22.31 Comparison of Diagnoses of Boys' and Girls' Track and Field Injuries 204

Table 22.32 Most Common Boys' and Girls' Track and Field Injury Diagnoses 204
Table 22.33 Comparison of Time Loss of Boys' and Girls' Track and Field Injuries 205
Table 22.34 Comparison of Mechanisms of Boys' and Girls' Track and Field Injuries 205
Table 22.35 Comparison of Activities of Boys' and Girls' Track and Field Injuries 206
22.6 BOYS' AND GIRLS' CROSS COUNTRY 207
Table 22.36 Comparison of Boys' and Girls' Cross Country Injury Rates 207
Table 22.37 Comparison of Body Sites of Boys' and Girls' Cross Country Injuries 207
Table 22.38 Comparison of Diagnoses of Boys' and Girls' Cross Country Injuries 208
Table 22.39 Most Common Boys' and Girls' Cross Country Injury Diagnoses 208
Table 22.40 Comparison of Time Loss of Boys' and Girls' Cross Country Injuries 209
Table 22.41 Comparison of Mechanisms of Boys' and Girls' Cross Country Injuries 209
Table 22.42 Comparison of Activities of Boys' and Girls' Cross Country Injuries 210
XXIII. REPORTER DEMOGRAPHICS & COMPLIANCE 211
XXIV. SUMMARY 213

REPORTING INFORMATION ONLINE

I. Introduction & Methodology

1.1 Project Overview

To combat the epidemic of obesity among youth in the United States (US), adolescents must be encouraged to get up off the couch and participate in physically active sports, recreation, and leisure activities. Participation in high school sports, one of the most popular physical activities among adolescents, has grown rapidly from an estimated 4.0 million participants in 1971-72 to over 8.0 million in the 2024-25 school year. While the health benefits of a physically active lifestyle including participating in sports are undeniable, high school athletes are at risk of sports-related injury because a certain endemic level of injury can be expected among participants of any physical activity. The challenge to injury epidemiologists is to reduce injury rates among high school athletes to the lowest possible level without discouraging adolescents from engaging in this important form of physical activity. This goal can best be accomplished by investigating the etiology of preventable injuries; by developing, implementing, and evaluating protective interventions using such science-based evidence; and by responsibly reporting epidemiologic findings while promoting a physically active lifestyle among adolescents.

1.2 Background and Significance

High school sports play an important role in the adoption and maintenance of a physically active lifestyle among millions of US adolescents. Too often injury prevention in this population is overlooked as sports-related injuries are thought to be unavoidable. In reality, sports-related injuries are largely preventable through the application of preventive interventions based on evidence-based science. The morbidity, mortality, and disability caused by high school sports-related injuries can be reduced through the development of effective prevention strategies and through programmatic decisions based on injury prevention. However, such efforts rely upon accurate estimates of injury incidence, injury rate calculations, and risk and protective factor data. Previously, no injury surveillance system capable of providing researchers with the needed quality of injury and exposure data for high school sports-related injuries existed.

Since the 2005-06 school year, the National High School Sports-Related Injury Surveillance Study has monitored injuries among US high school athletes participating in boys' football, boys' and girls' soccer, girls' volleyball, boys' and girls' basketball, boys' wrestling, boys' baseball, and girls' softball. Other sports were added in subsequent years including girls' field hockey, girls' gymnastics, boys' volleyball, boys' ice hockey, boys' and girls' lacrosse, boys' and girls' swimming & diving, boys' and girls' track & field, boys' and girls' tennis, boys' and girls' cross country, cheerleading, and girls' wrestling (boys' volleyball, girls' gymnastics, boys' and girls' tennis, and boys' and girls' swimming and diving are no longer under surveillance). The study data have been collected using the time- and cost-efficient RIO (Reporting Information Online) surveillance system. Through the generous contributions of the National Federation of State High School Associations (NFHS) and the NFHS Foundation, the National High School Sports-Related Injury Surveillance Study was able to be continued during the 2024-25 school year. Previous years of this study were funded by the Centers for Disease Control and Prevention (CDC), National Federation of State High School Associations (NFHS), the National Operating Committee on Standards for Athletic Equipment (NOCSAE), the Research Institute at Nationwide Children's Hospital, DonJoy Orthotics, EyeBlack, and The Ohio State University.

During the 2019-20 school year, the National High School Sports-Related Injury Surveillance Study transitioned from Dr. Dawn Comstock at the University of Colorado to Dr. Christy Collins at the Datalys Center for Sports Injury Research and Prevention, Inc. Dr. Collins worked with Dr. Comstock on the National High School Sports-Related Injury Surveillance Study during the 2005-06 through 2013-14 school years and is carrying on the important work of this surveillance system.

1.3 Specific Aims

The continuing objective of this study is to maintain the National High School Sports-Related Injury Surveillance Study among a convenience sample of US high schools. The specific aims of this study are:

A. To determine the incidence (number) of injuries among US high school boys' football, boys' and girls' soccer, girls' volleyball, boys' and girls' basketball, boys' and girls' wrestling, boys' baseball, girls' softball, girls' field hockey, boys' ice hockey, boys' and girls' lacrosse, boys' and girls' track & field, boys' and girls' cross country, and cheerleading athletes.
B. To calculate the rate of injuries per 1,000 athlete-competitions, per 1,000 athlete-practices, and per 1,000 athlete-exposures for US high school athletes in the 19 sports of interest.
C. To provide detailed information about the injuries sustained by US high school athletes including the type, site, severity, initial and subsequent treatment/care, outcome, etc.
D. To provide detailed information about the injury events including athlete demographics, position played, phase of play/activity, etc.
E. To identify potential risk or protective factors.

1.4 Project Design

The National High School Sports-Related Injury Surveillance Study defined an injury as:

A. An injury that occurred as a result of participation in an organized high school competition or practice and
B. Required medical attention by a team physician, certified athletic trainer, personal physician, or emergency department/urgent care facility and
C. Resulted in restriction of the high school athlete's participation for one or more days beyond the day of injury OR
D. Any fracture, concussion, dental injury, or exertional heat event regardless of whether or not it resulted in restriction of the student-athlete's participation.

An athlete exposure was defined as one athlete participating in one practice or competition where he or she is exposed to the possibility of athletic injury. Exposure was expressed in three parts:

A. Number of athlete-practices = the sum of the number of athletes at each practice during the past week. For example, if 20 athletes practiced on Monday through Thursday and 18 practiced on Friday, the number of athlete-practices would equal 98.
B. Number of athlete-competitions = the sum of the number of athletes at each competition during the past week. For example, if 9 athletes played in a Freshman game, 12 in a JV game, and 14 in a Varsity game, the number of athlete-competitions would equal 35.
C. Number of athlete-performances = the sum of the number of cheerleading athletes at each performance during the past week. For example, if 9 cheerleading athletes performed 3 times in one weekend, the number of athlete-performances would equal 27.

1.5 Sample Recruitment

Certified athletic trainers (AT) who provide care to high school athletes were eligible to participate. Eligible ATs received an email introducing the study and inviting them to participate. A three-stage sampling methodology was used to select study schools from all schools with ATs who expressed an interest in participating as reporters.

A. All schools were categorized into 8 sampling strata by geographic location (northeast, midwest, south, and west) and high school size (enrollment <= 1,000 or > 1,000 students). Participant schools were then randomly selected from each substrata to obtain 100 study schools to report for each of the 9 sports included in the original National High School Sports-Related Injury Surveillance Study (boys' football, soccer, basketball, wrestling, and baseball and girls' soccer, volleyball, basketball, and softball). This subset of 100 study schools were the randomly selected, nationally representative sample.
B. All schools not selected in step 1 who offered any of the more rarely offered 9 sports included in the expansion of the National High School Sports-Related Injury Surveillance Study (boys' ice hockey and lacrosse and girls' field hockey, lacrosse, and wrestling) were selected for the convenience sample in an attempt to obtain as large a sample as possible reporting for these more rarely offered sports.
C. A random sample of all schools not selected in step 1 or step 2 who offered the remaining sports of interest in the expansion of the National High School Sports-Related Injury Surveillance Study (boys' and girls' track & field, cross country, and cheerleading) were selected in an attempt to ensure at least 100 schools were reporting for each of the 19 sports of interest.

This three-step sampling methodology resulted in a large, nationally disperse convenience sample of US high schools. Participating ATs were offered a $300-$350 honorarium depending on the number of sports reported along with individualized school injury report and 10 Category B CEUs following the study's conclusion. As a result of the convenience sample methodology, different schools reported for the different sports of interest. See the table below:

School Participation by Sport, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	# Schools in Random Sample	# Schools in Convenience Sample	# Schools Total
Original Sports			
Football	83	17	100
Boys' Soccer	79	23	102
Girls' Soccer	78	21	99
Girls' Volleyball	81	19	100
Boys' Basketball	83	30	113
Girls' Basketball	84	28	112
Boys' Wrestling	74	22	96
Boys' Baseball	79	28	107
Girls' Softball	75	24	99
Convenience Sports			
Girls' Field Hockey	21	10	31
Boys' Ice Hockey	11	8	19
Boys' Lacrosse	32	16	48
Girls' Lacrosse	32	15	47
Boys' Track and Field	44	17	61
Girls' Track and Field	45	16	61
Boys' Cross Country	39	18	57
Girls' Cross Country	35	17	52
Cheerleading	42	9	51
Girls' Wrestling	34	8	42
Total	**90**	**34**	**124**

1.6 Data Collection

ATs enrolled in the National High School Sports-Related Injury Surveillance Study received an email every Monday throughout the study period reminding them to enter their school's data into the RIO surveillance system. Each participating AT was asked to complete 48 weekly exposure reports: one for each week from July 22, 2024 through June 22, 2025. Exposure reports collected exposure information (number of athlete-competitions, athlete-practices, and athlete-performances for cheerleading) and the number of reportable injuries sustained by student athletes for each sport currently in session at their school. For each reportable injury, the AT was asked to complete an injury report. The injury report collected detailed information about the injured player (e.g., age, year in school, etc.), the injury (e.g., site, type, severity, etc.) and the injury event (e.g., position played, phase of play, etc.). The internet-based surveillance tool provided ATs with the ability to view all their submitted data throughout the study and update reports as needed (e.g., need for surgery, days till resuming play, etc.).

1.7 Data Management

In an effort to decrease loss-to follow up, a log of reporters' utilization of the internet-based injury surveillance system was maintained throughout the study period. Reporters who repeatedly failed to log on to complete the weekly exposure and injury reports or who had errors with their reporting were contacted by the study staff and either reminded to report, asked to correct errors, or assessed for their willingness to continue participating in the study.

1.8 Data Analysis

Data were analyzed using SAS software, version 9.4. Although fractures, concussions, dental injuries, and exertional heat illnesses resulting in <1 day time loss were collected, unless otherwise noted, analyses in this report excluded these injuries.

Injury rates were calculated as the ratio of unweighted case counts per 1,000 athlete-exposures, and they were compared using rate ratios (RR) with 95% confidence intervals (CIs). The following is an example of the RR calculation comparing the rate of injury in boys' soccer to the rate of injury in girls' soccer:

$$RR = \frac{\text{\# boys' soccer injuries / total \# boys' soccer athlete-exposures}}{\text{\# girls' soccer injuries / total \# girls' soccer athlete-exposures}}$$

Injury proportions were compared using injury proportion ratios (IPR) and corresponding 95% CIs. The following is an example of the IPR calculation comparing the proportion of boys' soccer concussions to the proportion of girls' soccer concussions:

$$IPR = \frac{\text{\# boys' soccer concussions / total \# boys' soccer injuries}}{\text{\# girls' soccer concussions / total \# girls' soccer injuries}}$$

An RR or IPR >1.00 suggests a risk association while an RR or IPR <1.00 suggests a protective association. CIs not including 1.00 were considered statistically significant.

II. Overall Injury Epidemiology

REPORTING INFORMATION ONLINE

Table 2.1 Injury Rates by Sport and Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Event Type	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Overall	***Total***	***5,592***	***2,574,616***	***2.17***
	Competition	3,081	692,361	4.45
	Performance	18	18,082	1.00
	Practice	2,493	1,864,173	1.34
Boys' Football	***Total***	***1,789***	***441,662***	***4.05***
	Competition	1,092	78,612	13.89
	Practice	697	363,050	1.92
Boys' Soccer	***Total***	***427***	***218,731***	***1.95***
	Competition	283	70,437	4.02
	Practice	144	148,294	0.97
Girls' Soccer	***Total***	***489***	***168,509***	***2.90***
	Competition	343	53,311	6.43
	Practice	146	115,198	1.27
Girls' Volleyball	***Total***	***244***	***174,374***	***1.40***
	Competition	122	62,571	1.95
	Practice	122	111,803	1.09
Boys' Basketball	***Total***	***416***	***238,927***	***1.74***
	Competition	198	74,638	2.65
	Practice	218	164,289	1.33
Girls' Basketball	***Total***	***317***	***154,423***	***2.05***
	Competition	202	49,591	4.07
	Practice	115	104,832	1.10
Boys' Wrestling	***Total***	***530***	***183,990***	***2.88***
	Competition	236	47,341	4.99
	Practice	294	136,649	2.15

Girls' Wrestling	***Total***	***118***	***35,275***	***3.35***
	Competition	51	7,435	6.86
	Practice	67	27,840	2.41
Boys' Baseball	***Total***	***206***	***185,065***	***1.11***
	Competition	118	69,493	1.70
	Practice	88	115,572	0.76
Girls' Softball	***Total***	***154***	***115,592***	***1.33***
	Competition	80	40,812	1.96
	Practice	74	74,780	0.99
Girls' Field Hockey	***Total***	***86***	***45,792***	***1.88***
	Competition	51	15,708	3.25
	Practice	35	30,084	1.16
Boys' Ice Hockey	***Total***	***51***	***36,210***	***1.41***
	Competition	46	12,408	3.71
	Practice	5	23,802	0.21
Boys' Lacrosse	***Total***	***220***	***87,482***	***2.51***
	Competition	113	26,055	4.34
	Practice	107	61,427	1.74
Girls' Lacrosse	***Total***	***123***	***65,425***	***1.88***
	Competition	60	20,902	2.87
	Practice	63	44,523	1.41
Boys' Track and Field	***Total***	***124***	***128,148***	***0.97***
	Competition	37	23,024	1.61
	Practice	87	105,124	0.83
Girls' Track and Field	***Total***	***100***	***111,916***	***0.89***
	Competition	26	20,451	1.27
	Practice	74	91,465	0.81

Boys' Cross Country	***Total***	***60***	***53,701***	***1.12***
	Competition	10	8,173	1.22
	Practice	50	45,528	1.10
Girls' Cross Country	***Total***	***49***	***46,567***	***1.05***
	Competition	8	6,999	1.14
	Practice	41	39,568	1.04
Cheerleading	***Total***	***89***	***82,827***	***1.07***
	Competition	5	4,400	1.14
	Performance	18	18,082	1.00
	Practice	66	60,345	1.09

* Only includes injuries resulting in ≥1 day time loss.

Table 2.2 Proportion of Injuries Resulting in Time Loss, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	< 1 Day Time Loss	≥ 1 Day Time Loss	Time Loss Data Missing	Total
	%	%	%	%
Overall	***4.3%***	***91.5%***	***4.2%***	***100.0%***
Boys' Football	4.0%	92.3%	3.7%	100.0%
Boys' Soccer	2.8%	93.2%	3.9%	100.0%
Girls' Soccer	4.3%	90.4%	5.4%	100.0%
Girls' Volleyball	7.4%	89.7%	2.9%	100.0%
Boys' Basketball	5.9%	90.6%	3.5%	100.0%
Girls' Basketball	5.8%	87.6%	6.6%	100.0%
Boys' Wrestling	3.4%	90.1%	6.5%	100.0%
Girls' Wrestling	5.3%	90.1%	4.6%	100.0%
Boys' Baseball	5.2%	90.0%	4.8%	100.0%
Girls' Softball	5.4%	92.2%	2.4%	100.0%
Girls' Field Hockey	6.4%	91.5%	2.1%	100.0%
Boys' Ice Hockey	5.5%	92.7%	1.8%	100.0%
Boys' Lacrosse	1.3%	94.8%	3.9%	100.0%
Girls' Lacrosse	3.8%	93.9%	2.3%	100.0%
Boys' Track and Field	3.1%	95.4%	1.5%	100.0%
Girls' Track and Field	0.0%	98.0%	2.0%	100.0%
Boys' Cross Country	7.7%	92.3%	0.0%	100.0%
Girls' Cross Country	5.8%	94.2%	0.0%	100.0%
Cheerleading	3.8%	84.8%	11.4%	100.0%

* By study definition, non-time loss injuries were fractures, concussions, dental injuries, and exertional heat events that resulted in < 1 day time loss. These injuries are not included in any other analyses because they accounted for a small proportion of all injuries.

Table 2.3 Demographic Characteristics of Injured Athletes by Sex, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

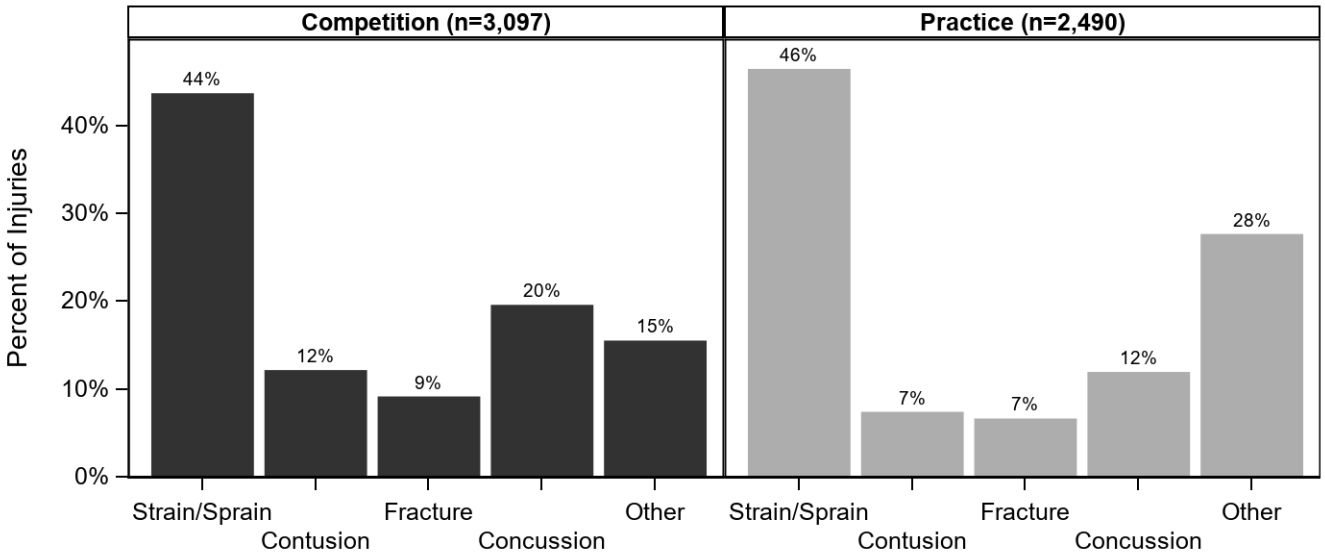
	Male		Female	
Year in School	**n**	**%**	**n**	**%**
Freshman	795	22.2%	418	25.5%
Sophomore	863	24.1%	450	27.4%
Junior	968	27.1%	412	25.1%
Senior	951	26.6%	360	22.0%
Total **	***3,577***	***100.0%***	***1,640***	***100.0%***

Age (years)		
Minimum	11	12
Maximum	19	18
Mean (SD)	15.9 (1.3)	15.7 (1.2)
n	2,976	1,337

BMI		
Minimum	14.6	13.3
Maximum	59.4	38.7
Mean (SD)	24.5 (4.7)	22.0 (3.3)
n	2,112	963

* All analyses in this report present un-weighted data.
** Throughout this report, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 2.1 Injury Diagnosis by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year



* Competition includes cheerleading performance related injuries.

Table 2.4 Body Site of Injury by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face	690	22.3%	397	15.9%	1,087	19.4%
Ankle	585	18.9%	414	16.6%	999	17.9%
Knee	475	15.3%	358	14.4%	833	14.9%
Hip/Thigh/Upper Leg	283	9.1%	344	13.8%	627	11.2%
Hand/Wrist	248	8.0%	197	7.9%	445	8.0%
Shoulder	239	7.7%	154	6.2%	393	7.0%
Lower Leg	121	3.9%	196	7.9%	317	5.7%
Trunk	119	3.8%	126	5.1%	245	4.4%
Arm/Elbow	127	4.1%	107	4.3%	234	4.2%
Foot	94	3.0%	110	4.4%	204	3.6%
Other	61	2.0%	35	1.4%	96	1.7%
Neck	35	1.1%	24	1.0%	59	1.1%
Systemic	22	0.7%	31	1.2%	53	0.9%
Total	***3,099***	***100.0%***	***2,493***	***100.0%***	***5,592***	***100.0%***

* Competition includes cheerleading performance related injuries. These were not summarized individually due to them totaling less than 1.0% of all injuries. Totals and n's are not always equal due to slight rounding or missing responses.

Table 2.5 Most Commonly Injured Ankle Structures, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Male (n=550)		Female (n=404)		Overall (n=954)	
Ankle Ligament Injuries	**n**	**%**	**n**	**%**	**n**	**%**
Anterior Talofibular Ligament	373	67.8%	294	72.8%	667	69.9%
Calcaneofibular Ligament	154	28.0%	123	30.4%	277	29.0%
Anterior Tibiofibular Ligament	104	18.9%	93	23.0%	197	20.6%
Posterior Talofibular Ligament	49	8.9%	45	11.1%	94	9.9%
Deltoid Ligament	36	6.5%	23	5.7%	59	6.2%
Posterior Tibiofibular Ligament	15	2.7%	19	4.7%	34	3.6%

* Multiple ligament responses allowed per injury report. Totals and n's are not always equal due to slight rounding or missing responses.

Table 2.6 Most Commonly Injured Knee Structures, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Male (n=534)		Female (n=261)		Overall (n=795)	
Knee Ligament Injuries	**n**	**%**	**n**	**%**	**n**	**%**
Patella and/or Patellar Tendon	157	29.4%	84	32.2%	241	30.3%
Anterior Cruciate Ligament	95	17.8%	70	26.8%	165	20.8%
Medial Collateral Ligament	119	22.3%	30	11.5%	149	18.7%
Torn Cartilage (Meniscus)	100	18.7%	38	14.6%	138	17.4%
Lateral Collateral Ligament	21	3.9%	9	3.4%	30	3.8%
Posterior Cruciate Ligament	12	2.2%	6	2.3%	18	2.3%

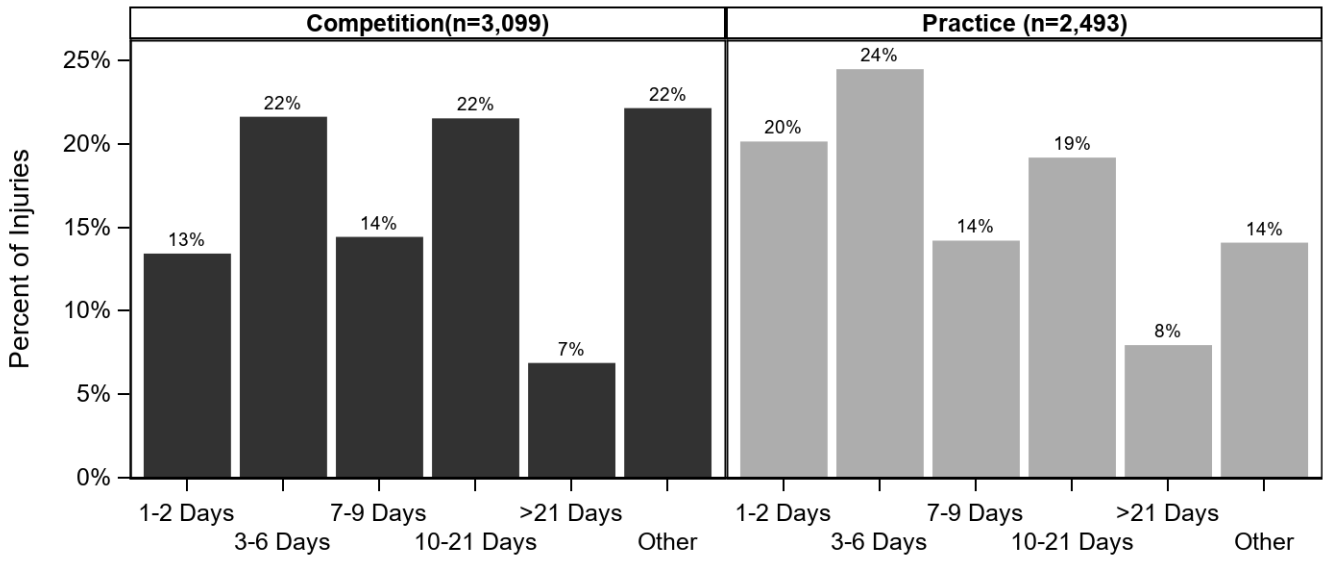
* Multiple ligament responses allowed per injury report. Totals and n's are not always equal due to slight rounding or missing responses.

Table 2.7 Ten Most Common Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition (n=3,097)		Practice (n=2,490)		Overall (n=5,587)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Ankle Strain/Sprain	540	17.4%	380	15.3%	920	16.5%
Head/Face Concussion	604	19.5%	296	11.9%	900	16.1%
Hip/Thigh/Upper Leg Strain/Sprain	195	6.3%	277	11.1%	472	8.4%
Knee Strain/Sprain	222	7.2%	143	5.7%	365	6.5%
Knee Other	157	5.1%	179	7.2%	336	6.0%
Shoulder Other	120	3.9%	75	3.0%	195	3.5%
Hand/Wrist Fracture	116	3.7%	73	2.9%	189	3.4%
Shoulder Strain/Sprain	105	3.4%	66	2.7%	171	3.1%
Hand/Wrist Strain/Sprain	75	2.4%	77	3.1%	152	2.7%
Lower Leg Other	17	0.5%	128	5.1%	145	2.6%

* Competition includes cheerleading performance related injuries. These were not summarized individually due to them totaling less than 1.0% of all injuries.

Figure 2.2 Time Loss by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year



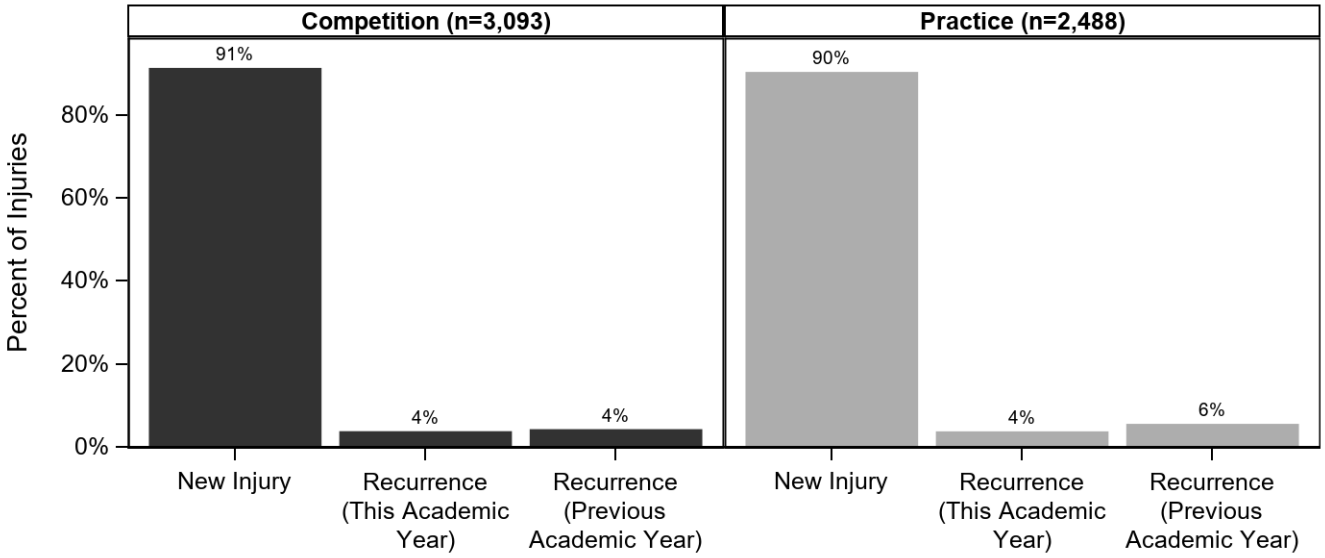
* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play. Competition includes cheerleading performance related injuries

Table 2.8 Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	222	7.3%	109	4.4%	331	6.0%
Did Not Require Surgery	2,827	92.7%	2,359	95.6%	5,186	94.0%
Total	***3,049***	***100.0%***	***2,468***	***100.0%***	***5,517***	***100.0%***

* Competition includes cheerleading performance related injuries. Totals and n's are not always equal due to slight rounding or missing responses.

Figure 2.3 New and Recurring Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year



* Competition includes cheerleading performance related injuries.

Table 2.9 Time during Season of Injury, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	1,082	19.4%
Regular Season	4,183	75.2%
Post Season	291	5.2%
Unknown/Other	10	0.2%
Total	***5,566***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 2.10 Practice-Related Variables, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	186	7.8%
Second 1/2 Hour	295	12.4%
1-2 Hours into Practice	1,121	46.9%
>2 Hours into Practice	110	4.6%
Unknown	676	28.3%
Total	***2,388***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 2.11 Methods for Injury Evaluation and Assessment, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Injuries Evaluated By:	n=5,592	%
Certified Athletic Trainer	5,268	94.2%
Orthopedic Physician	897	16.0%
Physician/Pediatrician	807	14.4%
Other	97	1.7%
Nurse Practitioner	96	1.7%
Physician's Assistant	87	1.6%
Neurologist/Neuropsychologist	36	0.6%
Chiropractor	20	0.4%
School Nurse	17	0.3%

Assessment Method:	n=5,592	%
Evaluation	5,513	98.6%
X-Ray	1,888	33.8%
MRI	632	11.3%
CT-Scan	104	1.9%
Blood Work/Lab Test	76	1.4%
Other	34	0.6%

* Multiple responses allowed per injury report. Totals and n's are not always equal due to slight rounding or missing responses.

III. Boys' Football Injury Epidemiology

REPORTING INFORMATION ONLINE

Table 3.1 Football Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***1,789***	***441,662***	***4.05***
Competition	1,092	78,612	13.89
Practice	697	363,050	1.92

* All analyses in this report present un-weighted data

Table 3.2 Demographic Characteristics of Injured Football Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	407	23.7%
Sophomore	417	24.3%
Junior	464	27.0%
Senior	428	24.9%
Total	***1,716***	***100.0%***

Age (years)	
Minimum	13
Maximum	18
Mean (SD)	15.7 (1.2)
n	1,426

BMI	
Minimum	14.6
Maximum	59.4
Mean (SD)	25.9 (5.4)
n	984

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 3.1 Diagnosis of Football Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

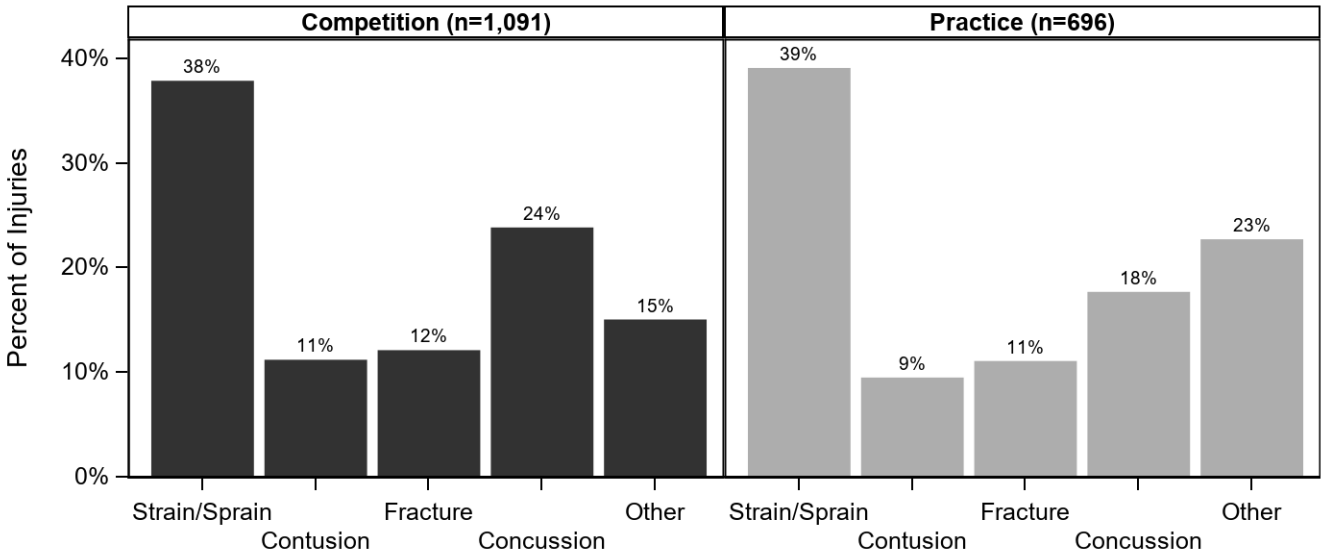


Table 3.3 Body Site of Football Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

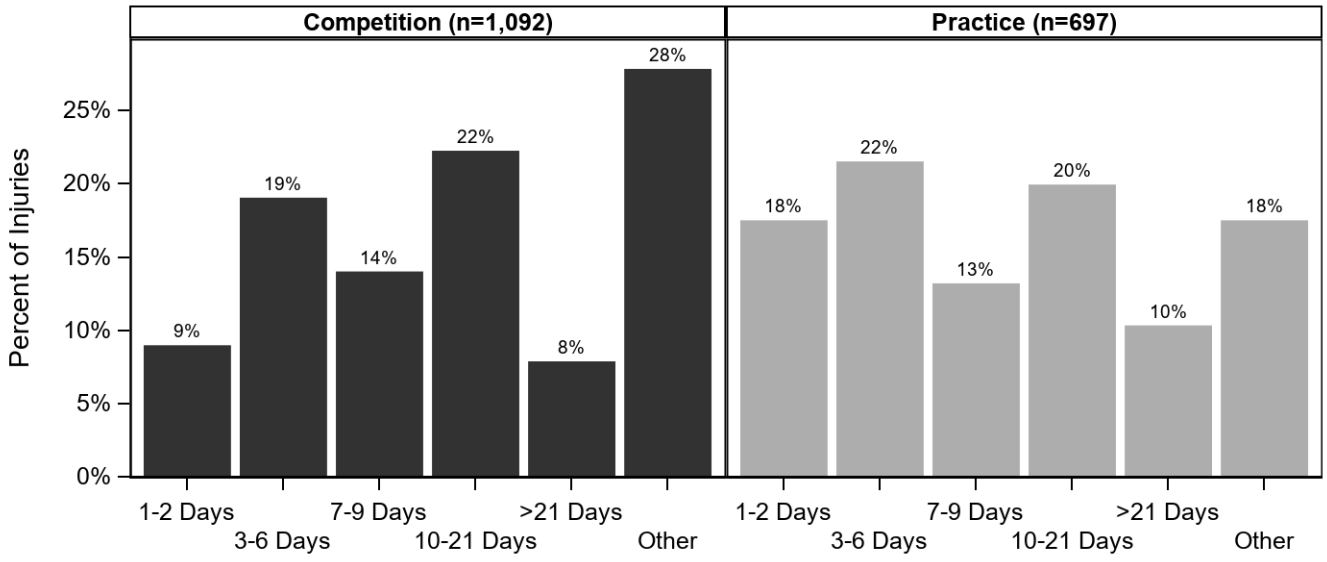
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face	269	24.6%	131	18.8%	400	22.4%
Knee	170	15.6%	93	13.3%	263	14.7%
Ankle	143	13.1%	75	10.8%	218	12.2%
Hand/Wrist	107	9.8%	88	12.6%	195	10.9%
Shoulder	113	10.3%	62	8.9%	175	9.8%
Hip/Thigh/Upper Leg	61	5.6%	79	11.3%	140	7.8%
Arm/Elbow	53	4.9%	33	4.7%	86	4.8%
Trunk	43	3.9%	37	5.3%	80	4.5%
Lower Leg	43	3.9%	32	4.6%	75	4.2%
Foot	31	2.8%	29	4.2%	60	3.4%
Other	36	3.3%	21	3.0%	57	3.2%
Neck	19	1.7%	8	1.1%	27	1.5%
Systemic	4	0.4%	9	1.3%	13	0.7%
Total	***1,092***	***100.0%***	***697***	***100.0%***	***1,789***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 3.4 Ten Most Common Football Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=1,091)		Practice (n=696)		Overall (n=1,787)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face Concussion	259	23.7%	123	17.7%	382	21.4%
Ankle Strain/Sprain	132	12.1%	65	9.3%	197	11.0%
Knee Strain/Sprain	98	9.0%	43	6.2%	141	7.9%
Hand/Wrist Fracture	53	4.9%	39	5.6%	92	5.1%
Hip/Thigh/Upper Leg Strain/Sprain	28	2.6%	61	8.8%	89	5.0%
Shoulder Other	57	5.2%	32	4.6%	89	5.0%
Knee Other	46	4.2%	40	5.7%	86	4.8%
Shoulder Strain/Sprain	48	4.4%	24	3.4%	72	4.0%
Hand/Wrist Strain/Sprain	29	2.7%	31	4.5%	60	3.4%
Hip/Thigh/Upper Leg Contusion	28	2.6%	11	1.6%	39	2.2%

Figure 3.2 Time Loss of Football Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 3.5 Football Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	112	10.4%	46	6.7%	158	9.0%
Did Not Require Surgery	961	89.6%	642	93.3%	1,603	91.0%
Total	***1,073***	***100.0%***	***688***	***100.0%***	***1,761***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 3.3 History of Football Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

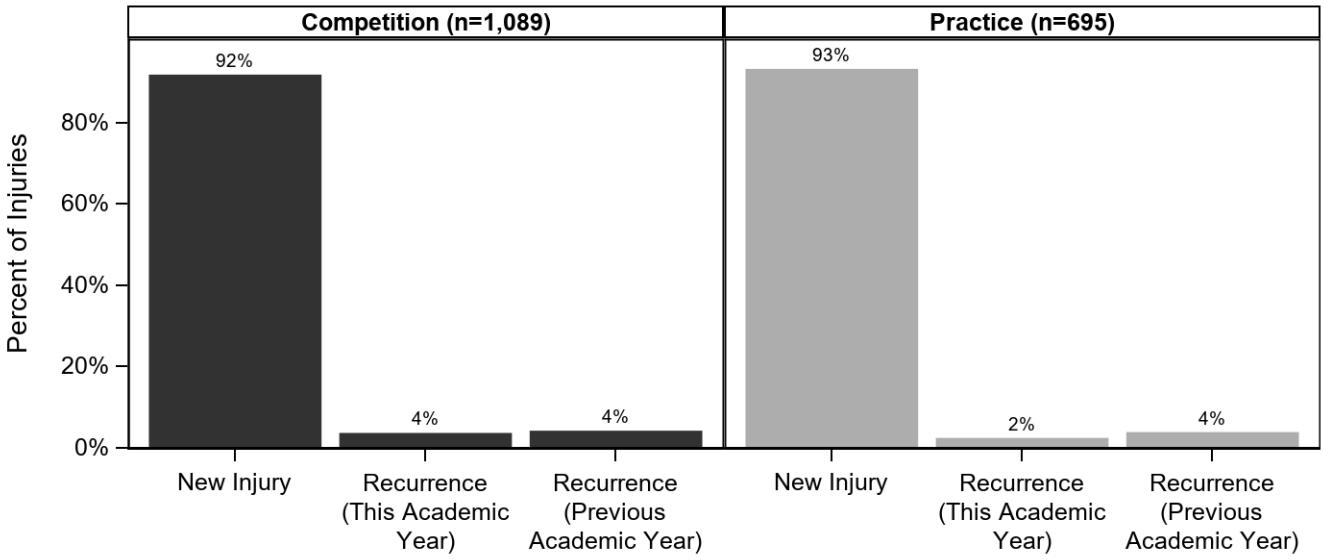


Table 3.6 Time during Season of Football Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	350	19.7%
Regular Season	1,334	75.2%
Post Season	89	5.0%
Unknown/Other	1	0.1%
Total	***1,774***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 3.7 Competition-Related Variables for Football Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	11	1.1%
First Quarter	122	12.5%
Second Quarter	280	28.6%
Third Quarter	306	31.3%
Fourth Quarter	259	26.5%
Overtime	1	0.1%
Total	***979***	***100.0%***

Field Location		
End Zone	16	1.6%
Red Zone (20 Yard Line to Goal Line)	152	15.4%
Between the 20 Yard Lines	553	55.9%
Off the Field	5	0.5%
Unknown	263	26.6%
Total	***989***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 3.8 Practice-Related Variables for Football Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	40	6.0%
Second 1/2 Hour	73	10.9%
1-2 Hours into Practice	334	49.9%
>2 Hours into Practice	48	7.2%
Unknown	174	26.0%
Total	***669***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 3.4 Player Position of Football Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

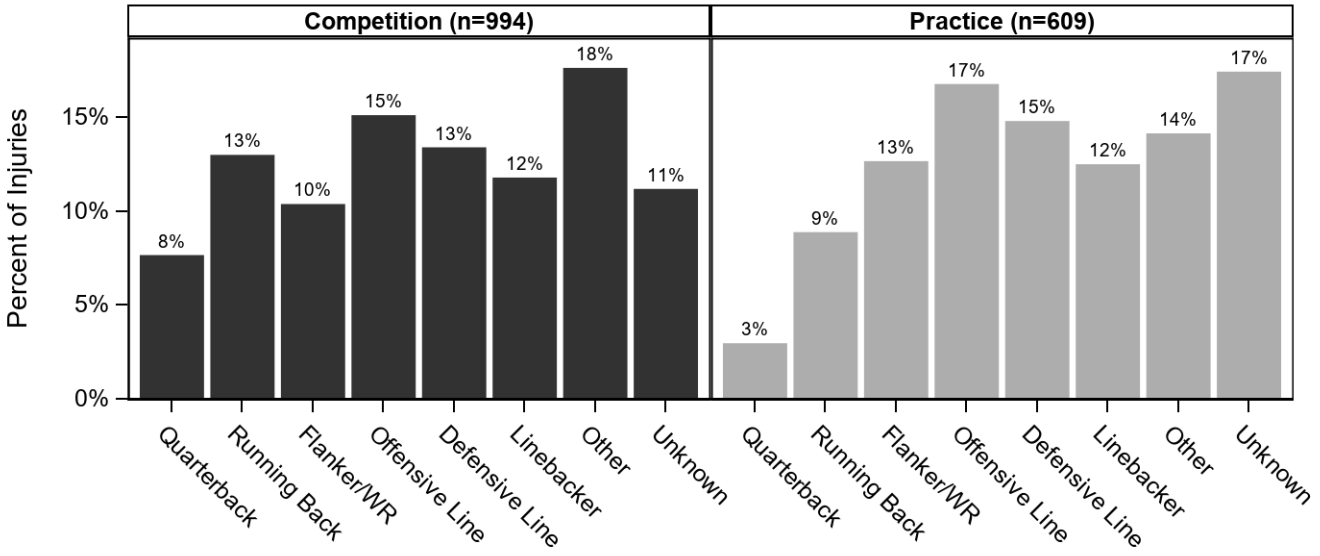


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Table 3.9 Activities Leading to Football Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
Being Tackled	300	29.8%	78	12.5%	378	23.2%
Tackling	261	25.9%	104	16.7%	365	22.4%
Blocking	160	15.9%	89	14.3%	249	15.3%
Unknown	87	8.6%	75	12.1%	162	10.0%
Being Blocked	73	7.3%	53	8.5%	126	7.7%
N/A **	13	1.3%	89	14.3%	102	6.3%
Stepped On, Fell On or Kicked	45	4.5%	33	5.3%	78	4.8%
Rotation Around a Planted Foot/Inversion	33	3.3%	37	5.9%	70	4.3%
Other	22	2.2%	42	6.8%	64	3.9%
Contact with Ball	8	0.8%	9	1.4%	17	1.0%
Contact with Blocking Sled/Dummy	0	0.0%	8	1.3%	8	0.5%
Uneven Playing Surface	3	0.3%	5	0.8%	8	0.5%
Contact with Seats, Bleacher or Table	1	0.1%	0	0.0%	1	0.1%
Total	***1,006***	***100.0%***	***622***	***100.0%***	***1,628***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.
** N/A category consists of skin infections, overuse injuries, heat illness, etc.

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Table 3.10 Activity Resulting in Football Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Being Blocked	39	6.1%	16	9.2%	12	6.2%	48	14.5%	11	3.8%
Being Tackled	125	19.7%	67	38.5%	52	26.8%	96	29.0%	38	13.1%
Blocking	109	17.1%	15	8.6%	25	12.9%	56	16.9%	44	15.1%
Contact with Ball	3	0.5%	1	0.6%	7	3.6%	0	0.0%	6	2.1%
Contact with Blocking Sled/Dummy	3	0.5%	0	0.0%	2	1.0%	0	0.0%	3	1.0%
Contact with Seats, Bleacher or Table	0	0.0%	0	0.0%	1	0.5%	0	0.0%	0	0.0%
N/A **	40	6.3%	1	0.6%	3	1.5%	0	0.0%	58	19.9%
Other	29	4.6%	4	2.3%	12	6.2%	6	1.8%	12	4.1%
Rotation Around a Planted Foot/Inversion	54	8.5%	2	1.1%	4	2.1%	0	0.0%	10	3.4%
Stepped On, Fell On or Kicked	37	5.8%	19	10.9%	15	7.7%	1	0.3%	6	2.1%
Tackling	126	19.8%	35	20.1%	45	23.2%	87	26.3%	72	24.7%
Uneven Playing Surface	5	0.8%	0	0.0%	2	1.0%	0	0.0%	1	0.3%
Unknown	66	10.4%	14	8.0%	14	7.2%	37	11.2%	30	10.3%
Total	***636***	***100.0%***	***174***	***100.0%***	***194***	***100.0%***	***331***	***100.0%***	***291***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.
** N/A category consists of skin infections, overuse injuries, heat illness, etc.

IV. Boys' Soccer Injury Epidemiology

Table 4.1 Boys' Soccer Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***427***	***218,731***	***1.95***
Competition	283	70,437	4.02
Practice	144	148,294	0.97

* All analyses in this report present un-weighted data.

Table 4.2 Demographic Characteristics of Injured Boys' Soccer Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	85	21.2%
Sophomore	98	24.4%
Junior	90	22.4%
Senior	128	31.9%
Total	***401***	***100.0%***

Age (years)	
Minimum	12
Maximum	18
Mean (SD)	16.0 (1.3)
n	348

BMI	
Minimum	16.3
Maximum	36.1
Mean (SD)	22.4 (2.8)
n	260

* Throughout this report, totals and n's represent the total un-weighted numbers of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 4.1 Diagnosis of Boys' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

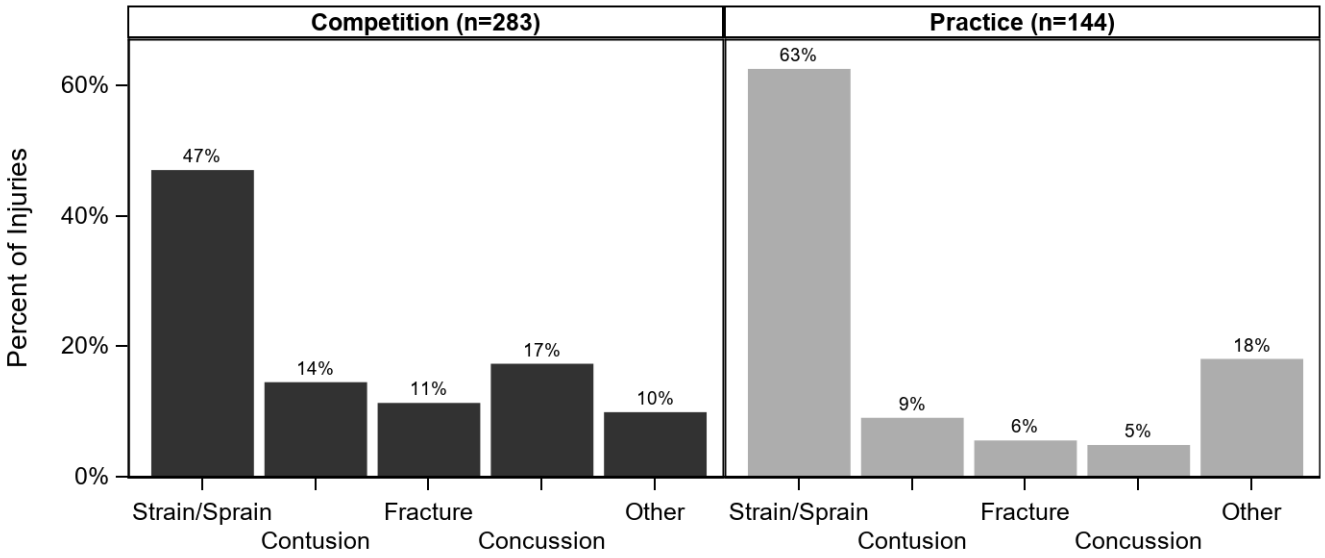


Table 4.3 Body Site of Boys' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

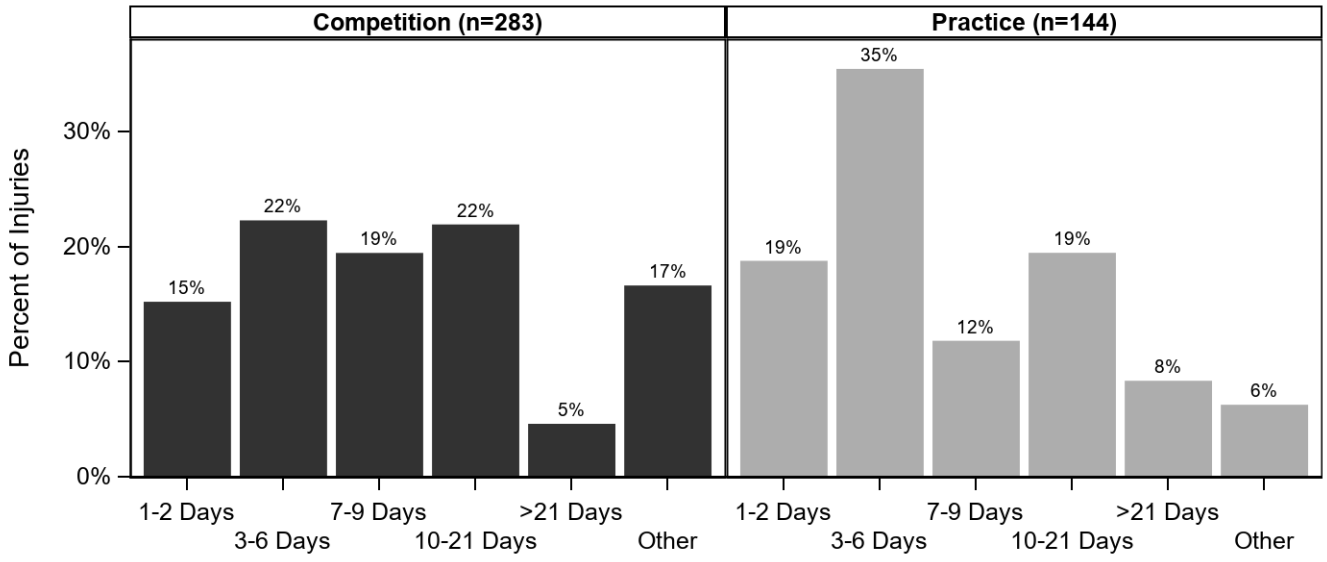
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Ankle	73	25.8%	29	20.1%	102	23.9%
Hip/Thigh/Upper Leg	52	18.4%	43	29.9%	95	22.2%
Head/Face	59	20.8%	10	6.9%	69	16.2%
Knee	35	12.4%	24	16.7%	59	13.8%
Foot	21	7.4%	12	8.3%	33	7.7%
Hand/Wrist	14	4.9%	6	4.2%	20	4.7%
Lower Leg	11	3.9%	7	4.9%	18	4.2%
Shoulder	7	2.5%	3	2.1%	10	2.3%
Trunk	4	1.4%	6	4.2%	10	2.3%
Arm/Elbow	4	1.4%	2	1.4%	6	1.4%
Other	1	0.4%	1	0.7%	2	0.5%
Systemic	1	0.4%	1	0.7%	2	0.5%
Neck	1	0.4%	0	0.0%	1	0.2%
Total	***283***	***100.0%***	***144***	***100.0%***	***427***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 4.4 Ten Most Common Boys' Soccer Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=283)		Practice (n=144)		Overall (n=427)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Ankle Strain/Sprain	61	21.6%	28	19.4%	89	20.8%
Hip/Thigh/Upper Leg Strain/Sprain	39	13.8%	35	24.3%	74	17.3%
Head/Face Concussion	49	17.3%	7	4.9%	56	13.1%
Knee Other	14	4.9%	13	9.0%	27	6.3%
Knee Strain/Sprain	14	4.9%	9	6.3%	23	5.4%
Hip/Thigh/Upper Leg Contusion	13	4.6%	5	3.5%	18	4.2%
Foot Contusion	8	2.8%	4	2.8%	12	2.8%
Hand/Wrist Fracture	10	3.5%	2	1.4%	12	2.8%
Foot Strain/Sprain	6	2.1%	3	2.1%	9	2.1%
Knee Contusion	6	2.1%	2	1.4%	8	1.9%

Figure 4.2 Time Loss of Boys' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 4.5 Boys' Soccer Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	8	2.9%	3	2.1%	11	2.6%
Did Not Require Surgery	271	97.1%	138	97.9%	409	97.4%
Total	***279***	***100.0%***	***141***	***100.0%***	***420***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 4.3 History of Boys' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

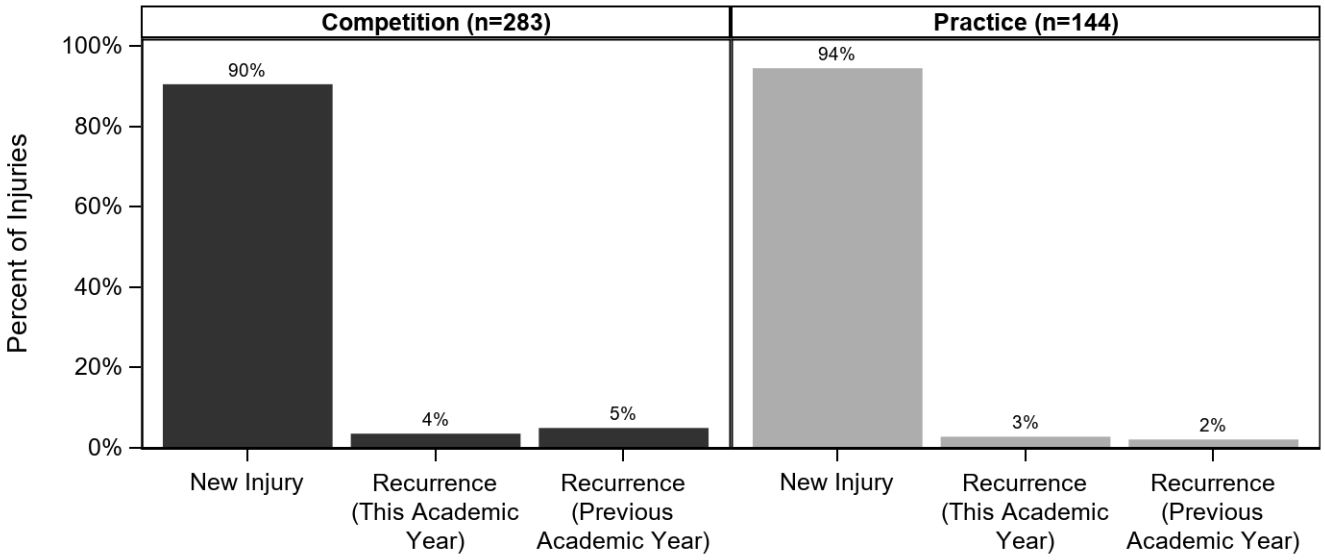


Table 4.6 Time during Season of Boys' Soccer Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	103	24.2%
Regular Season	297	69.7%
Post Season	26	6.1%
Total	***426***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 4.7 Competition-Related Variables for Boys' Soccer Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	7	2.8%
First Half	58	22.9%
Second Half	131	51.8%
Unknown	57	22.5%
Total	***253***	***100.0%***

Field Location		
Goal Box (Defense)	26	10.4%
Goal Box (Offense)	13	5.2%
Side of Goal Box (Defense)	9	3.6%
Side of Goal Box (Offense)	13	5.2%
Top of Goal Box Extended to Center Line (Offense)	52	20.9%
Top of Goal Box Extended to Center Line (Defense)	34	13.7%
Off the Field	2	0.8%
Unknown	100	40.2%
Total	***249***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 4.8 Practice-Related Variables for Boys' Soccer Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	11	7.8%
Second 1/2 Hour	20	14.2%
1-2 Hours into Practice	72	51.1%
>2 Hours into Practice	1	0.7%
Unknown	37	26.2%
Total	***141***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 4.4 Player Position of Boys' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

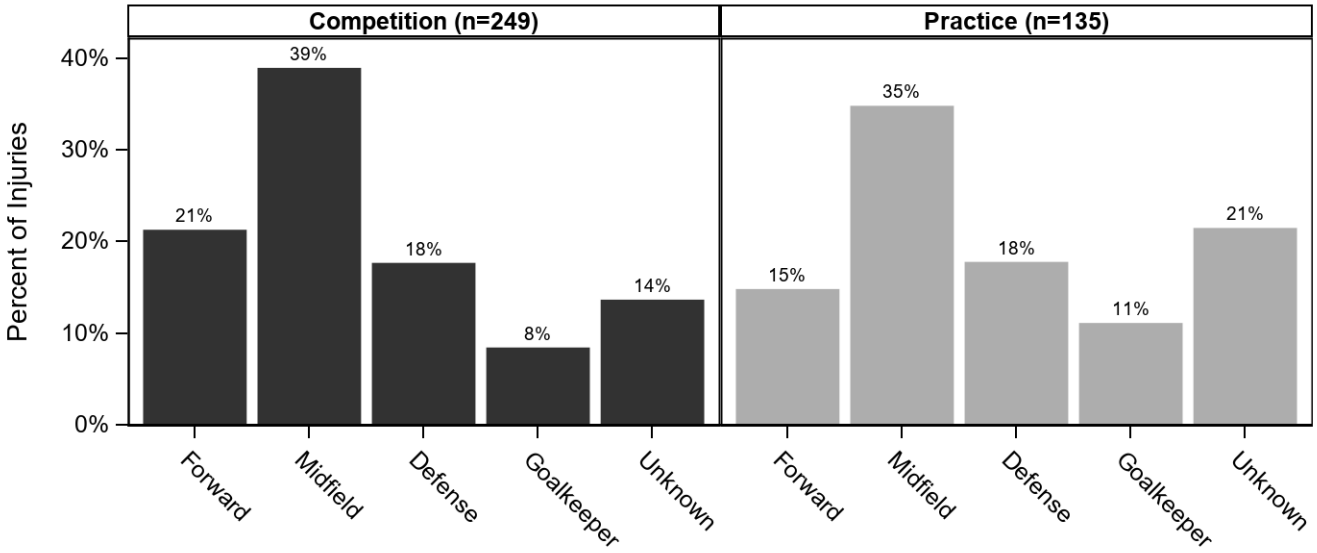


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Table 4.9 Activities Leading to Boys' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
General Play	54	21.2%	35	25.9%	89	22.8%
Unknown	43	16.9%	20	14.8%	63	16.2%
Defending	29	11.4%	7	5.2%	36	9.2%
Ball Handling/Dribbling	28	11.0%	8	5.9%	36	9.2%
Goaltending	18	7.1%	13	9.6%	31	7.9%
Chasing Loose Ball	18	7.1%	12	8.9%	30	7.7%
Shooting	14	5.5%	12	8.9%	26	6.7%
Heading Ball	18	7.1%	2	1.5%	20	5.1%
Conditioning	1	0.4%	14	10.4%	15	3.8%
Passing	10	3.9%	4	3.0%	14	3.6%
Receiving Pass	7	2.7%	3	2.2%	10	2.6%
Other	3	1.2%	4	3.0%	7	1.8%
Receiving a Slide Tackle	6	2.4%	0	0.0%	6	1.5%
Attempting a Slide Tackle	5	2.0%	0	0.0%	5	1.3%
Blocking Shot	1	0.4%	1	0.7%	2	0.5%
Total	***255***	***100.0%***	***135***	***100.0%***	***390***	***100.0%***

* Totals and n’s are not always equal due to slight rounding or missing responses.

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Table 4.10 Activity Resulting in Boys' Soccer Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Attempting a Slide Tackle	4	1.9%	0	0.0%	0	0.0%	0	0.0%	1	2.0%
Ball Handling/Dribbling	22	10.5%	4	8.5%	5	13.2%	2	4.3%	3	6.1%
Blocking Shot	2	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Chasing Loose Ball	20	9.6%	3	6.4%	3	7.9%	3	6.4%	1	2.0%
Conditioning	8	3.8%	0	0.0%	0	0.0%	0	0.0%	7	14.3%
Defending	16	7.7%	8	17.0%	5	13.2%	3	6.4%	4	8.2%
General Play	51	24.4%	10	21.3%	7	18.4%	4	8.5%	17	34.7%
Goaltending	9	4.3%	5	10.6%	4	10.5%	10	21.3%	3	6.1%
Heading Ball	3	1.4%	2	4.3%	1	2.6%	14	29.8%	0	0.0%
Other	5	2.4%	0	0.0%	1	2.6%	1	2.1%	0	0.0%
Passing	9	4.3%	2	4.3%	2	5.3%	0	0.0%	1	2.0%
Receiving Pass	6	2.9%	1	2.1%	1	2.6%	1	2.1%	1	2.0%
Receiving a Slide Tackle	2	1.0%	1	2.1%	1	2.6%	0	0.0%	2	4.1%
Shooting	19	9.1%	4	8.5%	0	0.0%	0	0.0%	3	6.1%
Unknown	33	15.8%	7	14.9%	8	21.1%	9	19.1%	6	12.2%
Total	***209***	***100.0%***	***47***	***100.0%***	***38***	***100.0%***	***47***	***100.0%***	***49***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

V. Girls' Soccer Injury Epidemiology

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Table 5.1 Girls' Soccer Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***489***	***168,509***	***2.90***
Competition	343	53,311	6.43
Practice	146	115,198	1.27

* All analyses in this report present un-weighted data

Table 5.2 Demographic Characteristics of Injured Girls' Soccer Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	97	22.0%
Sophomore	114	25.9%
Junior	114	25.9%
Senior	115	26.1%
Total	***440***	***100.0%***

Age (years)	
Minimum	13
Maximum	18
Mean (SD)	15.7 (1.2)
n	355

BMI	
Minimum	15.0
Maximum	35.9
Mean (SD)	22.1 (3.3)
n	250

* Throughout this report, totals and n's represent the total un-weighted numbers of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 5.1 Diagnosis of Girls' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

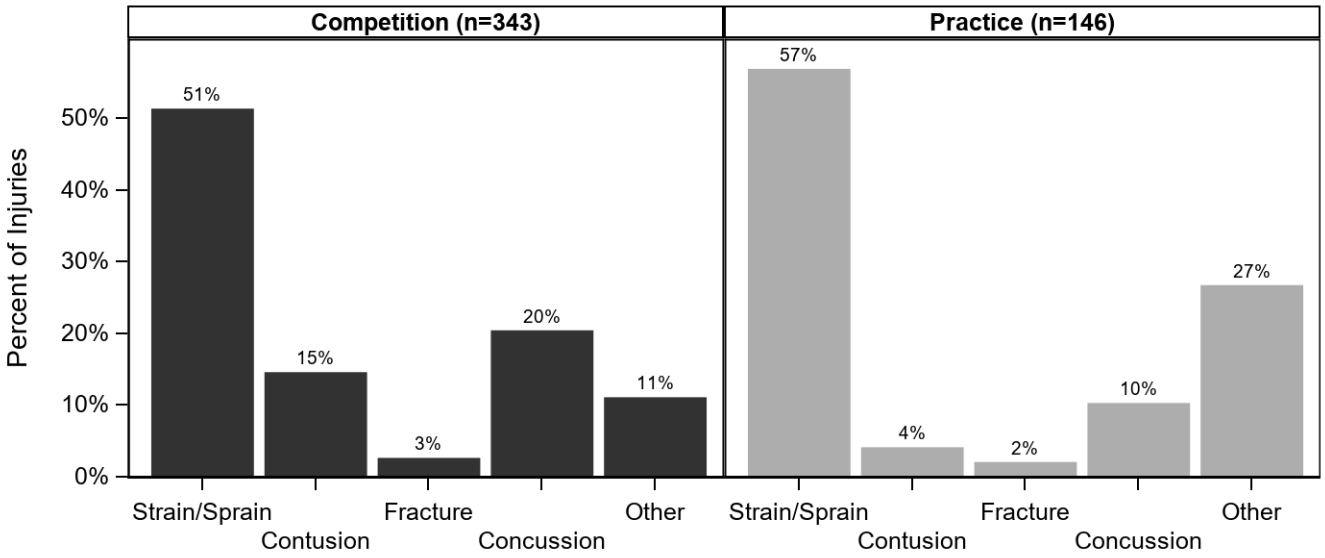


Table 5.3 Body Site of Girls' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

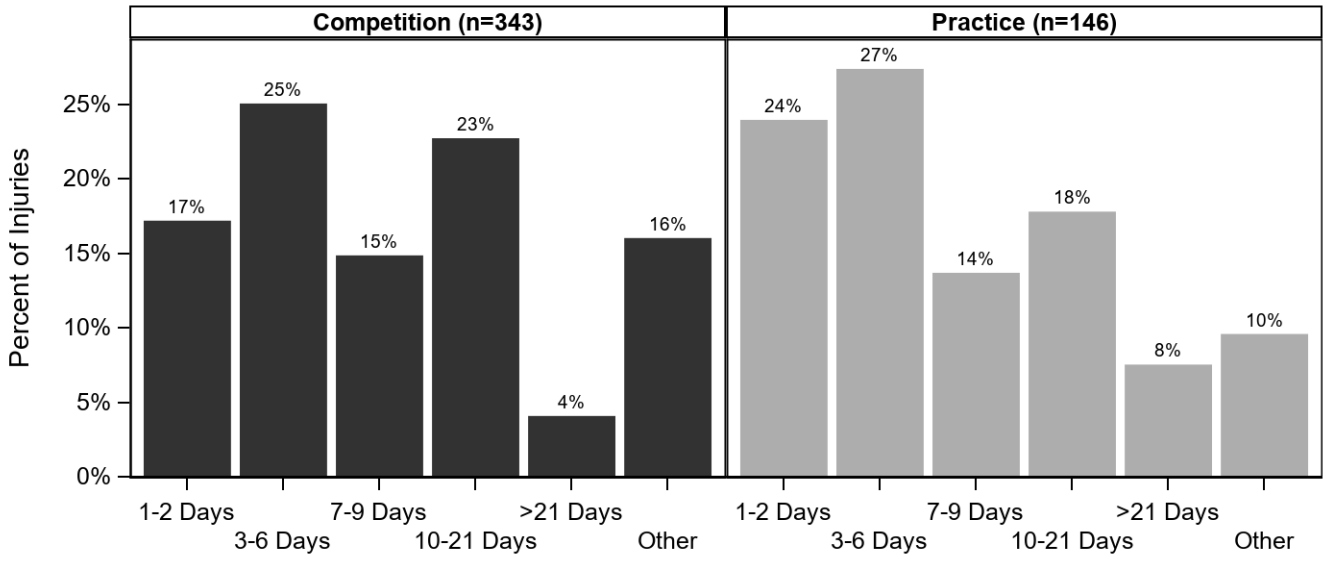
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Ankle	82	23.9%	35	24.0%	117	23.9%
Knee	76	22.2%	22	15.1%	98	20.0%
Head/Face	76	22.2%	18	12.3%	94	19.2%
Hip/Thigh/Upper Leg	49	14.3%	33	22.6%	82	16.8%
Lower Leg	16	4.7%	20	13.7%	36	7.4%
Foot	12	3.5%	9	6.2%	21	4.3%
Hand/Wrist	11	3.2%	5	3.4%	16	3.3%
Trunk	11	3.2%	1	0.7%	12	2.5%
Shoulder	4	1.2%	0	0.0%	4	0.8%
Neck	2	0.6%	1	0.7%	3	0.6%
Arm/Elbow	2	0.6%	0	0.0%	2	0.4%
Other	2	0.6%	0	0.0%	2	0.4%
Systemic	0	0.0%	2	1.4%	2	0.4%
Total	***343***	***100.0%***	***146***	***100.0%***	***489***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 5.4 Ten Most Common Girls' Soccer Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=343)		Practice (n=146)		Overall (n=489)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Ankle Strain/Sprain	79	23.0%	34	23.3%	113	23.1%
Head/Face Concussion	70	20.4%	15	10.3%	85	17.4%
Hip/Thigh/Upper Leg Strain/Sprain	38	11.1%	28	19.2%	66	13.5%
Knee Strain/Sprain	34	9.9%	6	4.1%	40	8.2%
Knee Other	24	7.0%	15	10.3%	39	8.0%
Knee Contusion	16	4.7%	1	0.7%	17	3.5%
Lower Leg Other	1	0.3%	13	8.9%	14	2.9%
Lower Leg Strain/Sprain	7	2.0%	6	4.1%	13	2.7%
Foot Strain/Sprain	4	1.2%	5	3.4%	9	1.8%
Hip/Thigh/Upper Leg Contusion	9	2.6%	0	0.0%	9	1.8%

Figure 5.2 Time Loss of Girls' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 5.5 Girls' Soccer Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	25	7.3%	4	2.7%	29	5.9%
Did Not Require Surgery	317	92.7%	142	97.3%	459	94.1%
Total	***342***	***100.0%***	***146***	***100.0%***	***488***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 5.3 History of Girls' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

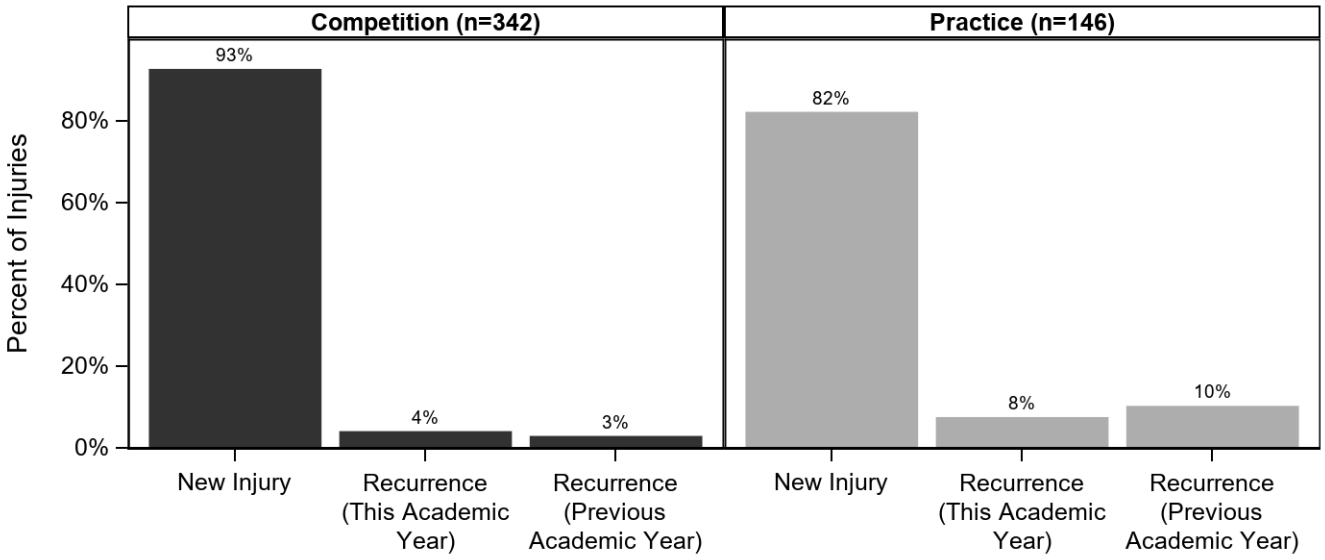


Table 5.6 Time during Season of Girls' Soccer Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	78	16.0%
Regular Season	379	77.5%
Post Season	32	6.5%
Total	***489***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 5.7 Competition-Related Variables for Girls' Soccer Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	3	0.9%
First Half	77	24.3%
Second Half	180	56.8%
Unknown	57	18.0%
Total	***317***	***100.0%***

Field Location		
Goal Box (Defense)	46	14.6%
Goal Box (Offense)	22	7.0%
Side of Goal Box (Defense)	13	4.1%
Side of Goal Box (Offense)	24	7.6%
Top of Goal Box Extended to Center Line (Offense)	53	16.9%
Top of Goal Box Extended to Center Line (Defense)	46	14.6%
Off the Field	2	0.6%
Unknown	108	34.4%
Total	***314***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 5.8 Practice-Related Variables for Girls' Soccer Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	9	6.4%
Second 1/2 Hour	17	12.1%
1-2 Hours into Practice	66	46.8%
>2 Hours into Practice	2	1.4%
Unknown	47	33.3%
Total	***141***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 5.4 Player Position of Girls' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

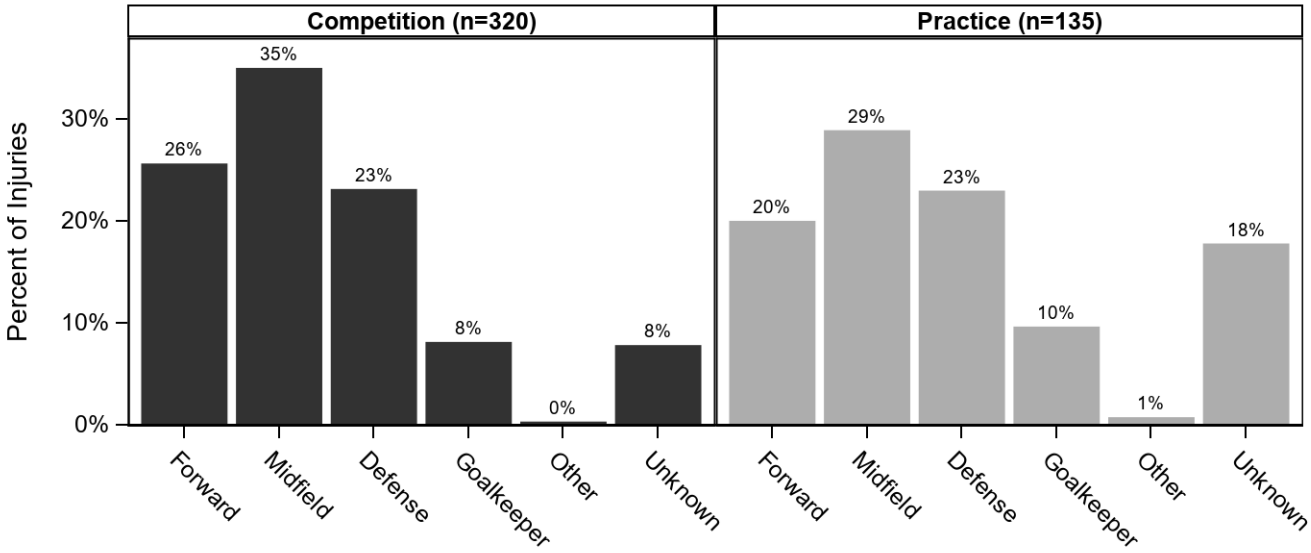


Table 5.9 Activities Leading to Girls' Soccer Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
General Play	77	23.9%	48	35.6%	125	27.4%
Defending	53	16.5%	11	8.1%	64	14.0%
Unknown	39	12.1%	22	16.3%	61	13.3%
Ball Handling/Dribbling	32	9.9%	8	5.9%	40	8.8%
Chasing Loose Ball	29	9.0%	5	3.7%	34	7.4%
Goaltending	21	6.5%	5	3.7%	26	5.7%
Shooting	13	4.0%	7	5.2%	20	4.4%
Passing	14	4.3%	6	4.4%	20	4.4%
Heading Ball	14	4.3%	4	3.0%	18	3.9%
Receiving Pass	17	5.3%	0	0.0%	17	3.7%
Conditioning	1	0.3%	13	9.6%	14	3.1%
Blocking Shot	8	2.5%	3	2.2%	11	2.4%
Other	0	0.0%	3	2.2%	3	0.7%
Attempting a Slide Tackle	3	0.9%	0	0.0%	3	0.7%
Receiving a Slide Tackle	1	0.3%	0	0.0%	1	0.2%
Total	***322***	***100.0%***	***135***	***100.0%***	***457***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

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Table 5.10 Activity Resulting in Girls' Soccer Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Attempting a Slide Tackle	2	0.8%	0	0.0%	0	0.0%	0	0.0%	1	1.4%
Ball Handling/Dribbling	29	11.9%	6	11.3%	1	8.3%	0	0.0%	4	5.8%
Blocking Shot	4	1.6%	0	0.0%	1	8.3%	6	7.5%	0	0.0%
Chasing Loose Ball	19	7.8%	6	11.3%	3	25.0%	3	3.8%	3	4.3%
Conditioning	8	3.3%	0	0.0%	0	0.0%	0	0.0%	6	8.7%
Defending	35	14.4%	9	17.0%	2	16.7%	10	12.5%	8	11.6%
General Play	74	30.5%	12	22.6%	0	0.0%	14	17.5%	25	36.2%
Goaltending	8	3.3%	3	5.7%	2	16.7%	8	10.0%	5	7.2%
Heading Ball	0	0.0%	0	0.0%	0	0.0%	17	21.3%	1	1.4%
Other	1	0.4%	1	1.9%	0	0.0%	0	0.0%	1	1.4%
Passing	15	6.2%	2	3.8%	0	0.0%	0	0.0%	3	4.3%
Receiving Pass	6	2.5%	6	11.3%	0	0.0%	4	5.0%	1	1.4%
Receiving a Slide Tackle	1	0.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Shooting	14	5.8%	4	7.5%	1	8.3%	0	0.0%	1	1.4%
Unknown	27	11.1%	4	7.5%	2	16.7%	18	22.5%	10	14.5%
Total	***243***	***100.0%***	***53***	***100.0%***	***12***	***100.0%***	***80***	***100.0%***	***69***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

VI. GIRLS' VOLLEYBALL INJURY EPIDEMIOLOGY

Table 6.1 Girls' Volleyball Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***244***	***174,374***	***1.40***
Competition	122	62,571	1.95
Practice	122	111,803	1.09

* All analyses in this report present un-weighted data.

Table 6.2 Demographic Characteristics of Injured Girls' Volleyball Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	62	26.8%
Sophomore	65	28.1%
Junior	59	25.5%
Senior	45	19.5%
Total	***231***	***100.0%***

Age (years)	
Minimum	13
Maximum	18
Mean (SD)	15.5 (1.2)
n	186

BMI	
Minimum	16.3
Maximum	30.9
Mean (SD)	21.8 (2.8)
n	134

* Throughout this report, totals and n's represent the total un-weighted numbers of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 6.1 Diagnosis of Girls' Volleyball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

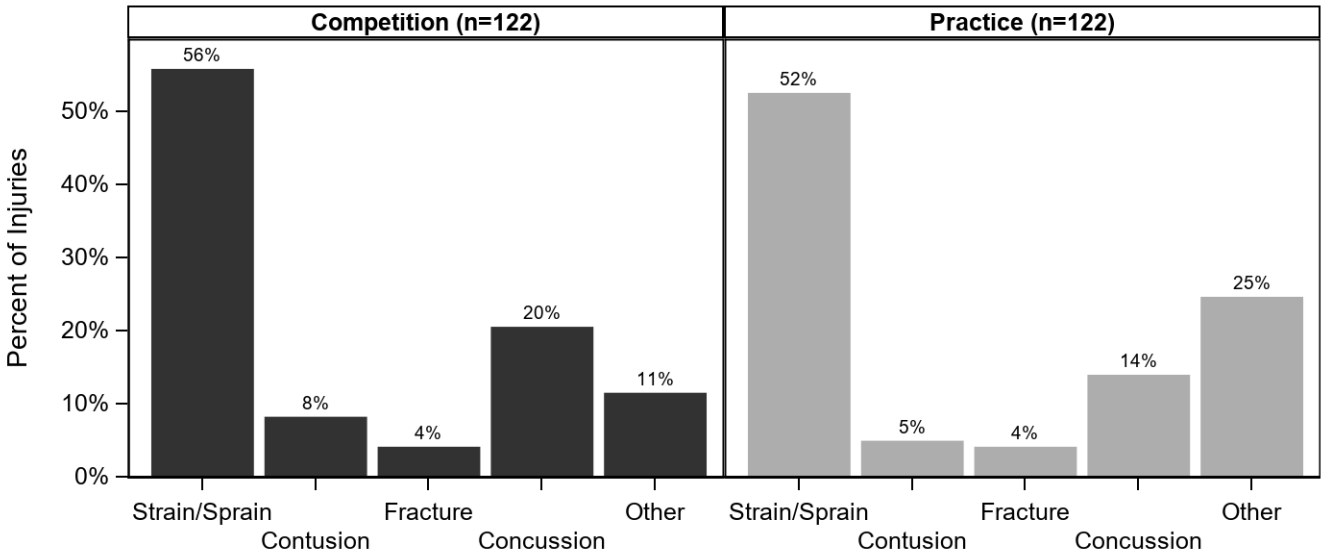


Table 6.3 Body Site of Girls' Volleyball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

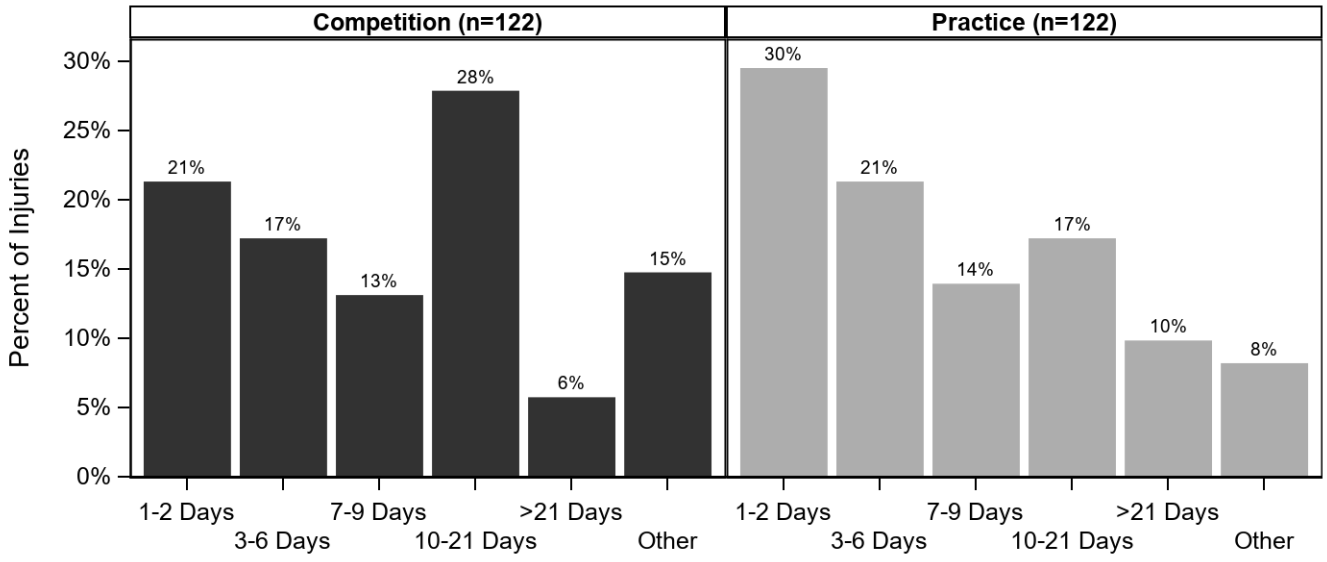
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Ankle	44	36.1%	32	26.2%	76	31.1%
Head/Face	27	22.1%	23	18.9%	50	20.5%
Knee	15	12.3%	15	12.3%	30	12.3%
Shoulder	11	9.0%	15	12.3%	26	10.7%
Hand/Wrist	11	9.0%	10	8.2%	21	8.6%
Trunk	2	1.6%	9	7.4%	11	4.5%
Hip/Thigh/Upper Leg	4	3.3%	4	3.3%	8	3.3%
Arm/Elbow	3	2.5%	4	3.3%	7	2.9%
Lower Leg	1	0.8%	5	4.1%	6	2.5%
Foot	3	2.5%	2	1.6%	5	2.0%
Systemic	1	0.8%	1	0.8%	2	0.8%
Neck	0	0.0%	1	0.8%	1	0.4%
Other	0	0.0%	1	0.8%	1	0.4%
Total	***122***	***100.0%***	***122***	***100.0%***	***244***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 6.4 Ten Most Common Girls' Volleyball Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=122)		Practice (n=122)		Overall (n=244)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Ankle Strain/Sprain	40	32.8%	30	24.6%	70	28.7%
Head/Face Concussion	25	20.5%	17	13.9%	42	17.2%
Hand/Wrist Strain/Sprain	9	7.4%	7	5.7%	16	6.6%
Knee Strain/Sprain	9	7.4%	7	5.7%	16	6.6%
Shoulder Other	7	5.7%	8	6.6%	15	6.1%
Shoulder Strain/Sprain	4	3.3%	7	5.7%	11	4.5%
Knee Other	3	2.5%	6	4.9%	9	3.7%
Hip/Thigh/Upper Leg Strain/Sprain	3	2.5%	3	2.5%	6	2.5%
Ankle Fracture	4	3.3%	1	0.8%	5	2.0%
Trunk Other	1	0.8%	4	3.3%	5	2.0%

Figure 6.2 Time Loss of Girls' Volleyball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 6.5 Girls' Volleyball Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	6	5.0%	2	1.6%	8	3.3%
Did Not Require Surgery	113	95.0%	120	98.4%	233	96.7%
Total	***119***	***100.0%***	***122***	***100.0%***	***241***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 6.3 History of Girls' Volleyball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

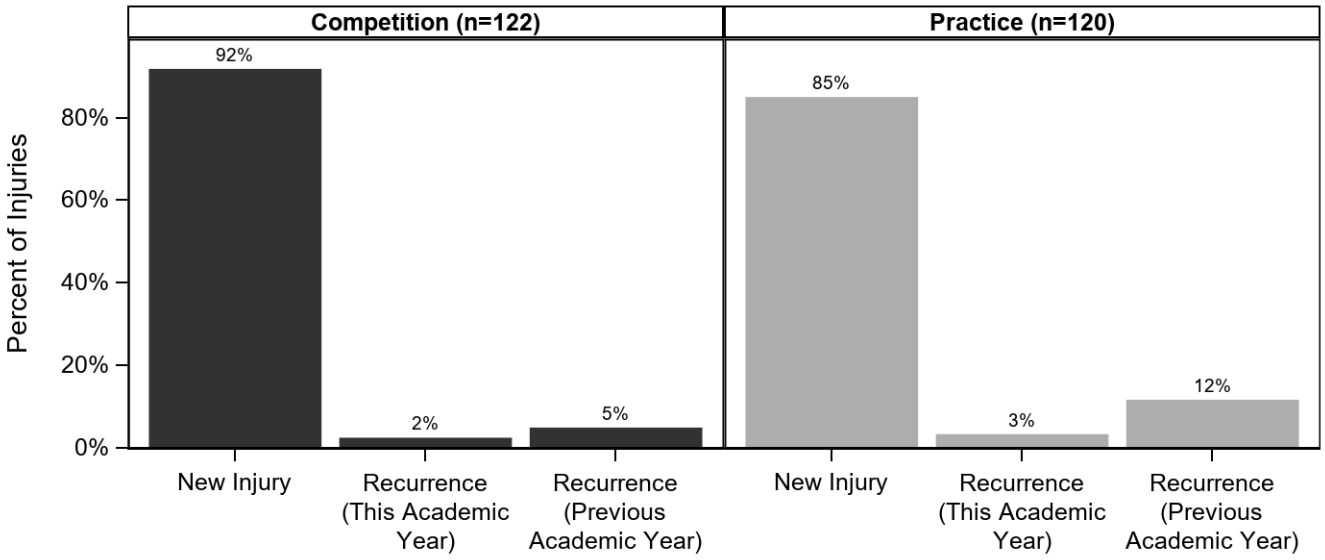


Table 6.6 Time during Season of Girls' Volleyball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	37	15.2%
Regular Season	198	81.1%
Post Season	9	3.7%
Total	***244***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 6.7 Competition-Related Variables for Girls' Volleyball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	9	8.0%
First Set	14	12.5%
Second Set	25	22.3%
Third Set	26	23.2%
Fifth Set	2	1.8%
Unknown	36	32.1%
Total	***112***	***100.0%***

Court Location		
Right Back (Server)	5	4.5%
Right Forward	16	14.4%
Outside Court (Your Side)	3	2.7%
Middle Forward	12	10.8%
Left Forward	8	7.2%
Left Back	14	12.6%
Outside the Playable Area	5	4.5%
At the Net	10	9.0%
Unknown	38	34.2%
Total	***111***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 6.8 Practice-Related Variables for Girls' Volleyball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	14	11.9%
Second 1/2 Hour	17	14.4%
1-2 Hours into Practice	47	39.8%
>2 Hours into Practice	7	5.9%
Unknown	33	28.0%
Total	***118***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 6.4 Player Position of Girls' Volleyball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

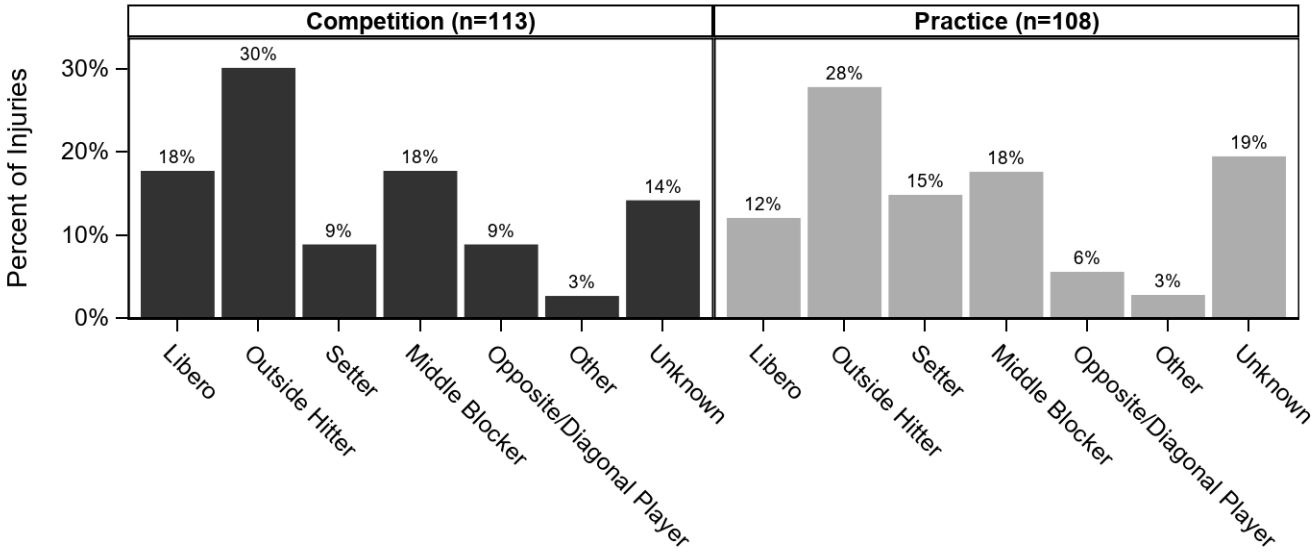


Table 6.9 Activities Leading to Girls' Volleyball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
General Play	21	18.6%	29	26.9%	50	22.6%
Blocking	28	24.8%	18	16.7%	46	20.8%
Digging	21	18.6%	5	4.6%	26	11.8%
Unknown	8	7.1%	17	15.7%	25	11.3%
Passing	10	8.8%	11	10.2%	21	9.5%
Spiking	8	7.1%	8	7.4%	16	7.2%
Serving	5	4.4%	8	7.4%	13	5.9%
Setting	6	5.3%	7	6.5%	13	5.9%
Other	6	5.3%	4	3.7%	10	4.5%
Conditioning	0	0.0%	1	0.9%	1	0.5%
Total	***113***	***100.0%***	***108***	***100.0%***	***221***	***100.0%***

* Totals and n’s are not always equal due to slight rounding or missing responses.

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Table 6.10 Activity Resulting in Girls' Volleyball Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Blocking	37	29.8%	3	21.4%	3	37.5%	2	4.9%	1	2.9%
Conditioning	1	0.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Digging	11	8.9%	5	35.7%	0	0.0%	8	19.5%	2	5.9%
General Play	19	15.3%	4	28.6%	2	25.0%	14	34.1%	11	32.4%
Other	2	1.6%	1	7.1%	0	0.0%	5	12.2%	2	5.9%
Passing	10	8.1%	0	0.0%	1	12.5%	9	22.0%	1	2.9%
Serving	5	4.0%	1	7.1%	0	0.0%	1	2.4%	6	17.6%
Setting	10	8.1%	0	0.0%	0	0.0%	0	0.0%	3	8.8%
Spiking	12	9.7%	0	0.0%	1	12.5%	0	0.0%	3	8.8%
Unknown	17	13.7%	0	0.0%	1	12.5%	2	4.9%	5	14.7%
Total	***124***	***100.0%***	***14***	***100.0%***	***8***	***100.0%***	***41***	***100.0%***	***34***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

VII. Boys' Basketball Injury Epidemiology

Table 7.1 Boys' Basketball Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***416***	***238,927***	***1.74***
Competition	198	74,638	2.65
Practice	218	164,289	1.33

* All analyses in this report present un-weighted data.

Table 7.2 Demographic Characteristics of Injured Boys' Basketball Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	100	24.5%
Sophomore	93	22.8%
Junior	95	23.3%
Senior	120	29.4%
Total	***408***	***100.0%***

Age (years)	
Minimum	14
Maximum	19
Mean (SD)	16.2 (1.3)
n	315

BMI	
Minimum	15.8
Maximum	35.1
Mean (SD)	23.2 (3.4)
n	231

* Throughout this report, totals and n's represent the total un-weighted numbers of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 7.1 Diagnosis of Boys' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

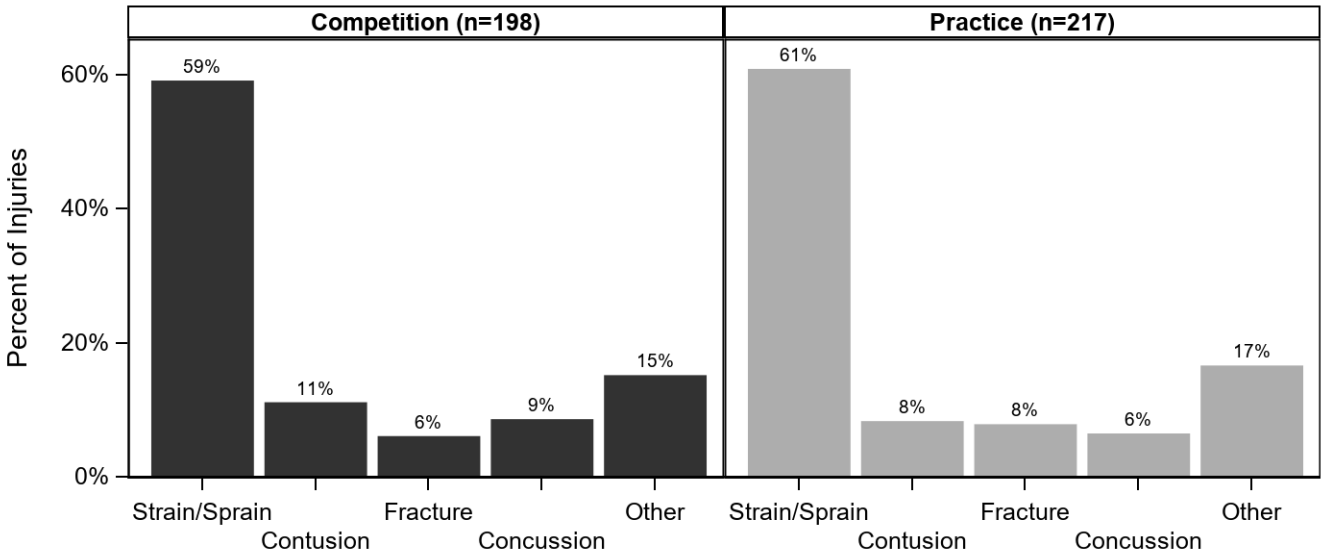


Table 7.3 Body Site of Boys' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

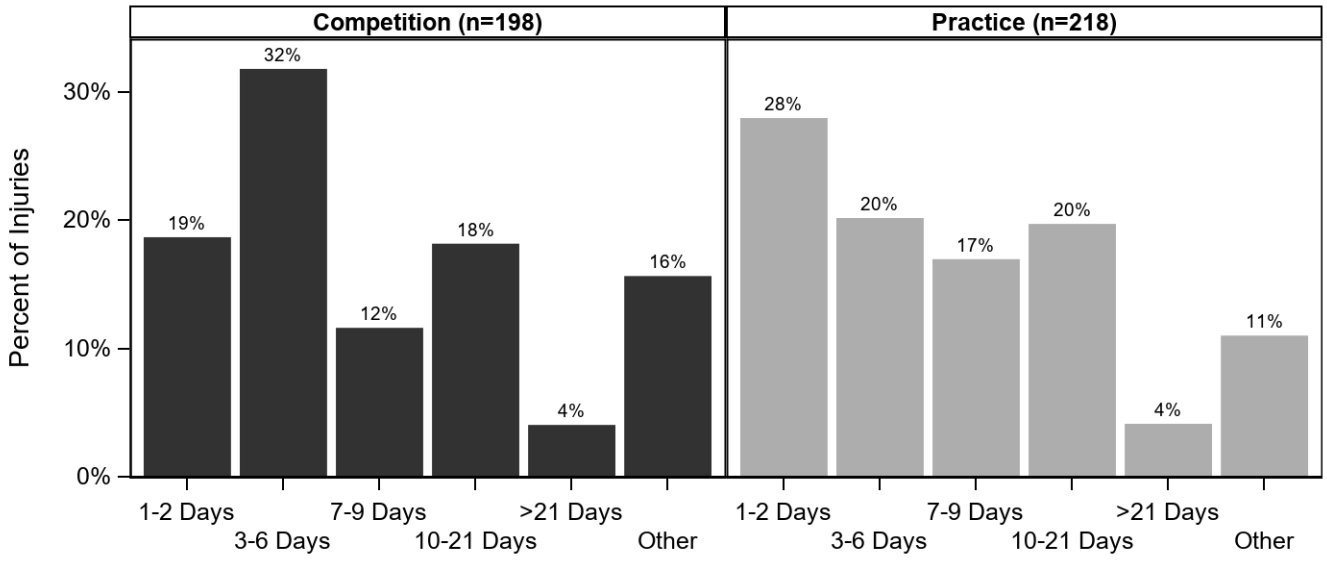
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Ankle	80	40.4%	85	39.0%	165	39.7%
Head/Face	32	16.2%	29	13.3%	61	14.7%
Knee	26	13.1%	30	13.8%	56	13.5%
Hand/Wrist	14	7.1%	21	9.6%	35	8.4%
Hip/Thigh/Upper Leg	15	7.6%	20	9.2%	35	8.4%
Trunk	8	4.0%	8	3.7%	16	3.8%
Foot	4	2.0%	11	5.0%	15	3.6%
Lower Leg	6	3.0%	7	3.2%	13	3.1%
Shoulder	8	4.0%	1	0.5%	9	2.2%
Systemic	3	1.5%	2	0.9%	5	1.2%
Arm/Elbow	1	0.5%	2	0.9%	3	0.7%
Other	1	0.5%	2	0.9%	3	0.7%
Total	***198***	***100.0%***	***218***	***100.0%***	***416***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 7.4 Ten Most Common Boys' Basketball Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=198)		Practice (n=217)		Overall (n=415)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Ankle Strain/Sprain	75	37.9%	83	38.2%	158	38.1%
Head/Face Concussion	17	8.6%	14	6.5%	31	7.5%
Knee Strain/Sprain	13	6.6%	11	5.1%	24	5.8%
Hip/Thigh/Upper Leg Strain/Sprain	7	3.5%	15	6.9%	22	5.3%
Knee Other	6	3.0%	15	6.9%	21	5.1%
Head/Face Other	9	4.5%	6	2.8%	15	3.6%
Hand/Wrist Strain/Sprain	7	3.5%	7	3.2%	14	3.4%
Hand/Wrist Fracture	4	2.0%	6	2.8%	10	2.4%
Hip/Thigh/Upper Leg Contusion	6	3.0%	4	1.8%	10	2.4%
Knee Contusion	7	3.5%	3	1.4%	10	2.4%

Figure 7.2 Time Loss of Boys' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 7.5 Boys' Basketball Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	11	5.6%	9	4.2%	20	4.9%
Did Not Require Surgery	185	94.4%	205	95.8%	390	95.1%
Total	***196***	***100.0%***	***214***	***100.0%***	***410***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 7.3 History of Boys' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

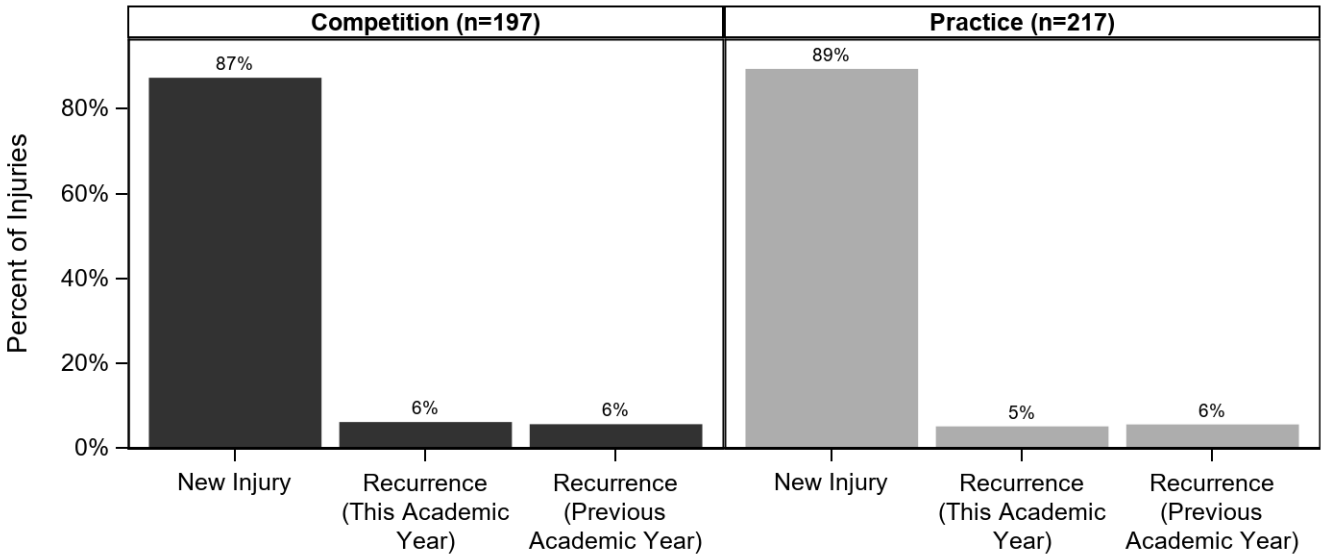


Table 7.6 Time during Season of Boys' Basketball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	73	17.6%
Regular Season	322	77.8%
Post Season	18	4.3%
Unknown/Other	1	0.2%
Total	***414***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 7.7 Competition-Related Variables for Boys' Basketball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	4	2.2%
First Quarter	13	7.1%
Second Quarter	39	21.2%
Third Quarter	45	24.5%
Fourth Quarter	50	27.2%
Unknown	33	17.9%
Total	***184***	***100.0%***

Court Location		
Inside Lane (Offense)	43	23.9%
Inside Lane (Defense)	28	15.6%
Between 3 Point Arc and Lane (Offense)	12	6.7%
Between 3 Point Arc and Lane (Defense)	12	6.7%
Outside 3 Point Arc (Offense)	8	4.4%
Outside 3 Point Arc (Defense)	12	6.7%
Out of Bounds	7	3.9%
Off the Court	1	0.6%
Backcourt	1	0.6%
Unknown	56	31.1%
Total	***180***	***100.0%***

* Totals and n’s are not always equal due to slight rounding or missing responses.

Table 7.8 Practice-Related Variables for Boys' Basketball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	18	8.6%
Second 1/2 Hour	42	20.1%
1-2 Hours into Practice	107	51.2%
>2 Hours into Practice	10	4.8%
Unknown	32	15.3%
Total	***209***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 7.4 Player Position of Boys' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

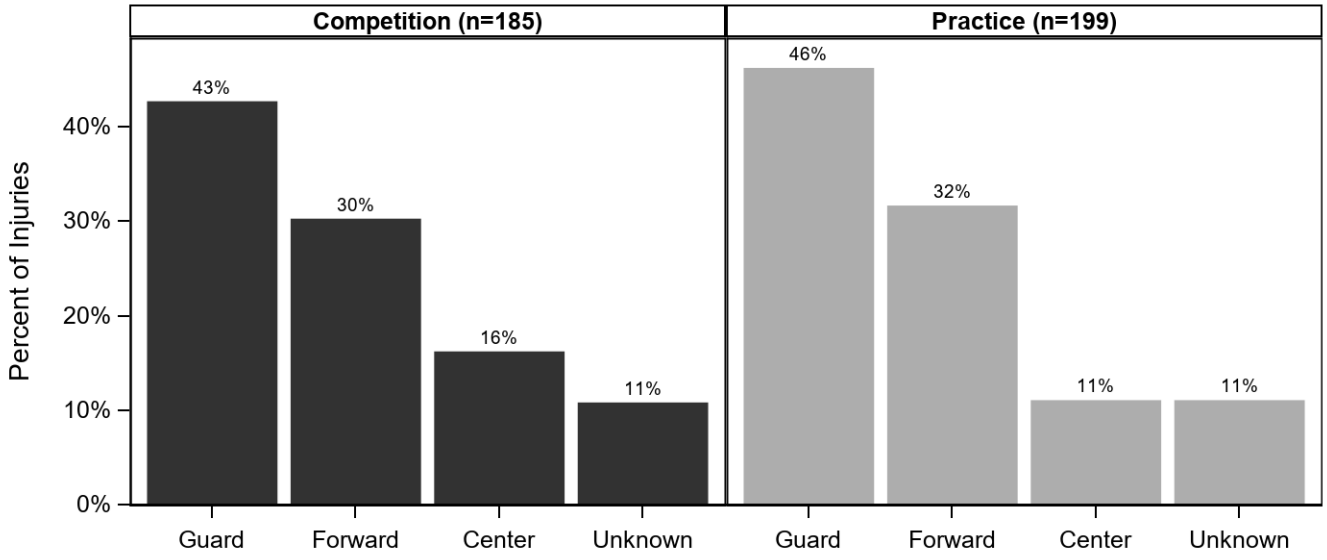


Table 7.9 Activities Leading to Boys' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
Rebounding	42	22.6%	47	23.4%	89	23.0%
General Play	30	16.1%	53	26.4%	83	21.4%
Defending	21	11.3%	28	13.9%	49	12.7%
Shooting	29	15.6%	14	7.0%	43	11.1%
Chasing Loose Ball	21	11.3%	17	8.5%	38	9.8%
Unknown	18	9.7%	10	5.0%	28	7.2%
Ball Handling/Dribbling	11	5.9%	9	4.5%	20	5.2%
Conditioning	0	0.0%	13	6.5%	13	3.4%
Receiving Pass	6	3.2%	4	2.0%	10	2.6%
Other	6	3.2%	3	1.5%	9	2.3%
Passing	1	0.5%	2	1.0%	3	0.8%
Screening	1	0.5%	1	0.5%	2	0.5%
Total	***186***	***100.0%***	***201***	***100.0%***	***387***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

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Table 7.10 Activity Resulting in Boys' Basketball Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Ball Handling/Dribbling	15	6.4%	3	8.6%	0	0.0%	1	3.6%	1	1.6%
Chasing Loose Ball	14	6.0%	4	11.4%	4	14.3%	8	28.6%	8	13.1%
Conditioning	10	4.3%	1	2.9%	0	0.0%	0	0.0%	2	3.3%
Defending	27	11.5%	10	28.6%	4	14.3%	5	17.9%	3	4.9%
General Play	47	20.1%	7	20.0%	5	17.9%	3	10.7%	21	34.4%
Other	5	2.1%	0	0.0%	3	10.7%	0	0.0%	1	1.6%
Passing	1	0.4%	1	2.9%	1	3.6%	0	0.0%	0	0.0%
Rebounding	72	30.8%	3	8.6%	5	17.9%	4	14.3%	5	8.2%
Receiving Pass	2	0.9%	0	0.0%	3	10.7%	2	7.1%	3	4.9%
Screening	1	0.4%	0	0.0%	0	0.0%	0	0.0%	1	1.6%
Shooting	28	12.0%	4	11.4%	3	10.7%	3	10.7%	5	8.2%
Unknown	12	5.1%	2	5.7%	0	0.0%	2	7.1%	11	18.0%
Total	***234***	***100.0%***	***35***	***100.0%***	***28***	***100.0%***	***28***	***100.0%***	***61***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

VIII. Girls' Basketball Injury Epidemiology

Table 8.1 Girls' Basketball Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***317***	***154,423***	***2.05***
Competition	202	49,591	4.07
Practice	115	104,832	1.10

* All analyses in this report present un-weighted data.

Table 8.2 Demographic Characteristics of Injured Girls' Basketball Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	86	29.4%
Sophomore	67	22.9%
Junior	73	24.9%
Senior	67	22.9%
Total	***293***	***100.0%***

Age (years)	
Minimum	11
Maximum	18
Mean (SD)	15.8 (1.4)
n	237

BMI	
Minimum	14.5
Maximum	37.9
Mean (SD)	22.0 (3.5)
n	159

* Throughout this report, totals and n's represent the total un-weighted numbers of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 8.1 Diagnosis of Girls' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

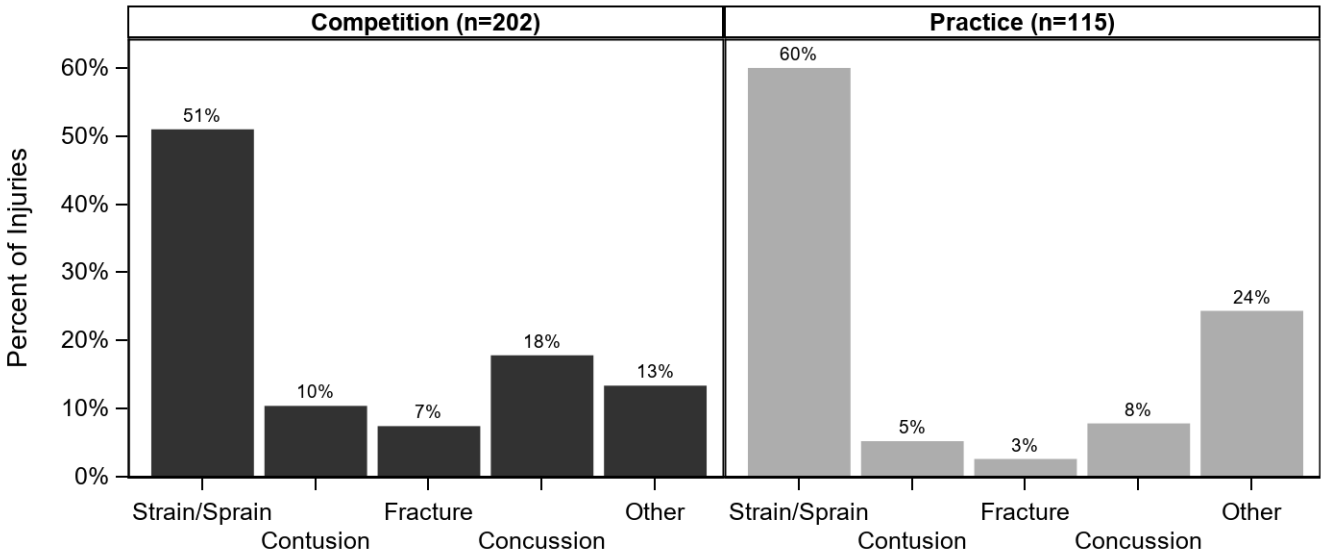


Table 8.3 Body Site of Girls' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

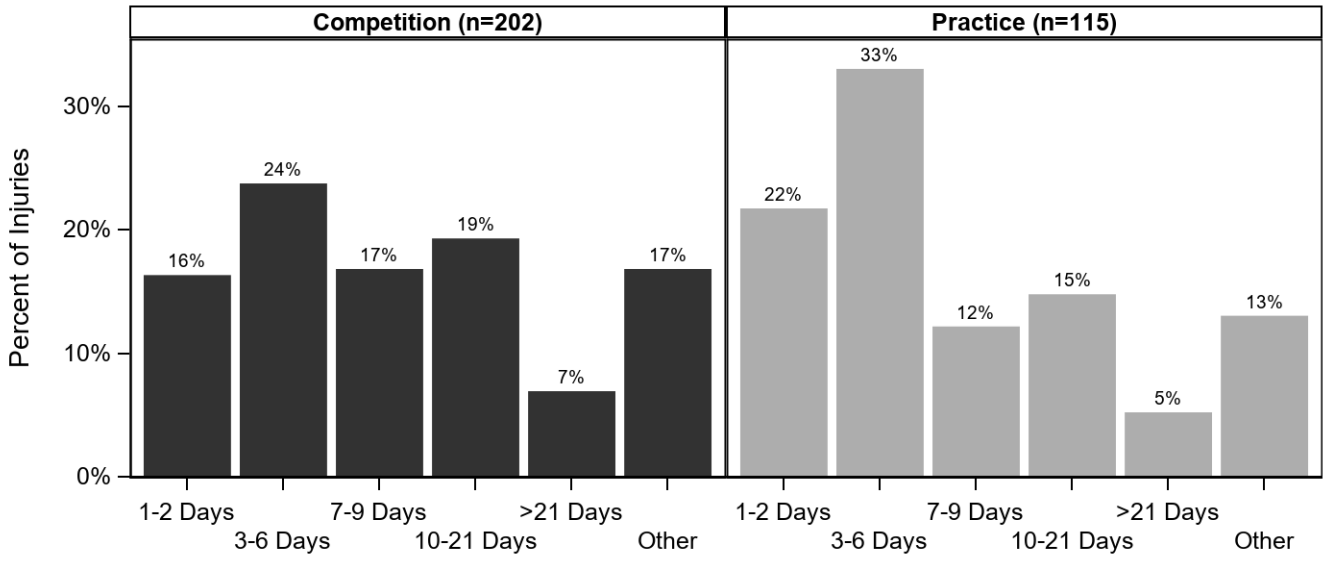
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Ankle	73	36.1%	37	32.2%	110	34.7%
Head/Face	54	26.7%	9	7.8%	63	19.9%
Knee	34	16.8%	22	19.1%	56	17.7%
Hand/Wrist	15	7.4%	8	7.0%	23	7.3%
Hip/Thigh/Upper Leg	4	2.0%	14	12.2%	18	5.7%
Lower Leg	4	2.0%	10	8.7%	14	4.4%
Foot	5	2.5%	5	4.3%	10	3.2%
Trunk	3	1.5%	4	3.5%	7	2.2%
Systemic	3	1.5%	3	2.6%	6	1.9%
Shoulder	4	2.0%	1	0.9%	5	1.6%
Arm/Elbow	3	1.5%	1	0.9%	4	1.3%
Other	0	0.0%	1	0.9%	1	0.3%
Total	***202***	***100.0%***	***115***	***100.0%***	***317***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 8.4 Ten Most Common Girls' Basketball Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=202)		Practice (n=115)		Overall (n=317)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Ankle Strain/Sprain	69	34.2%	37	32.2%	106	33.4%
Head/Face Concussion	36	17.8%	8	7.0%	44	13.9%
Knee Strain/Sprain	16	7.9%	9	7.8%	25	7.9%
Knee Other	12	5.9%	11	9.6%	23	7.3%
Hip/Thigh/Upper Leg Strain/Sprain	2	1.0%	11	9.6%	13	4.1%
Hand/Wrist Fracture	9	4.5%	3	2.6%	12	3.8%
Head/Face Contusion	7	3.5%	1	0.9%	8	2.5%
Knee Contusion	6	3.0%	2	1.7%	8	2.5%
Lower Leg Strain/Sprain	3	1.5%	5	4.3%	8	2.5%
Hand/Wrist Strain/Sprain	5	2.5%	2	1.7%	7	2.2%

Figure 8.2 Time Loss of Girls' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 8.5 Girls' Basketball Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	17	8.6%	5	4.4%	22	7.1%
Did Not Require Surgery	181	91.4%	108	95.6%	289	92.9%
Total	***198***	***100.0%***	***113***	***100.0%***	***311***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 8.3 History of Girls' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

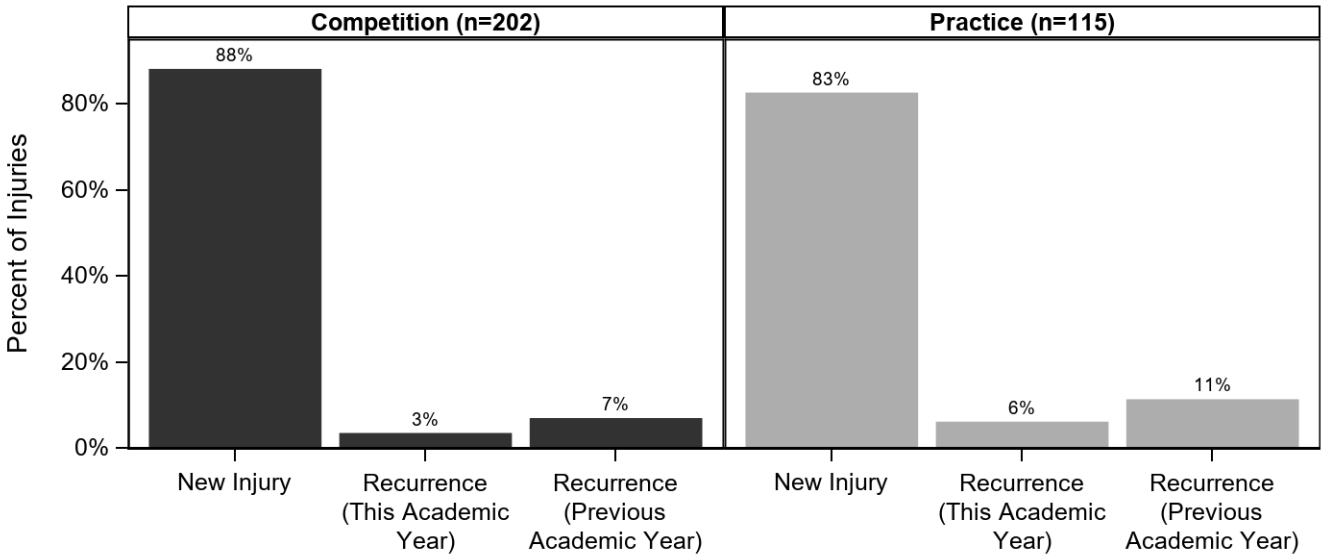


Table 8.6 Time during Season of Girls' Basketball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	52	16.5%
Regular Season	254	80.4%
Post Season	10	3.2%
Total	***316***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 8.7 Competition-Related Variables for Girls' Basketball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	3	1.6%
First Quarter	16	8.8%
Second Quarter	41	22.5%
Third Quarter	43	23.6%
Fourth Quarter	48	26.4%
Unknown	31	17.0%
Total	***182***	***100.0%***

Court Location		
Inside Lane (Offense)	40	22.1%
Inside Lane (Defense)	36	19.9%
Between 3 Point Arc and Lane (Offense)	10	5.5%
Between 3 Point Arc and Lane (Defense)	18	9.9%
Outside 3 Point Arc (Offense)	11	6.1%
Outside 3 Point Arc (Defense)	12	6.6%
Out of Bounds	1	0.6%
Off the Court	1	0.6%
Backcourt	5	2.8%
Unknown	47	26.0%
Total	***181***	***100.0%***

* Totals and n’s are not always equal due to slight rounding or missing responses.

Table 8.8 Practice-Related Variables for Girls' Basketball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	12	11.0%
Second 1/2 Hour	29	26.6%
1-2 Hours into Practice	34	31.2%
>2 Hours into Practice	5	4.6%
Unknown	29	26.6%
Total	***109***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 8.4 Player Position of Girls' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

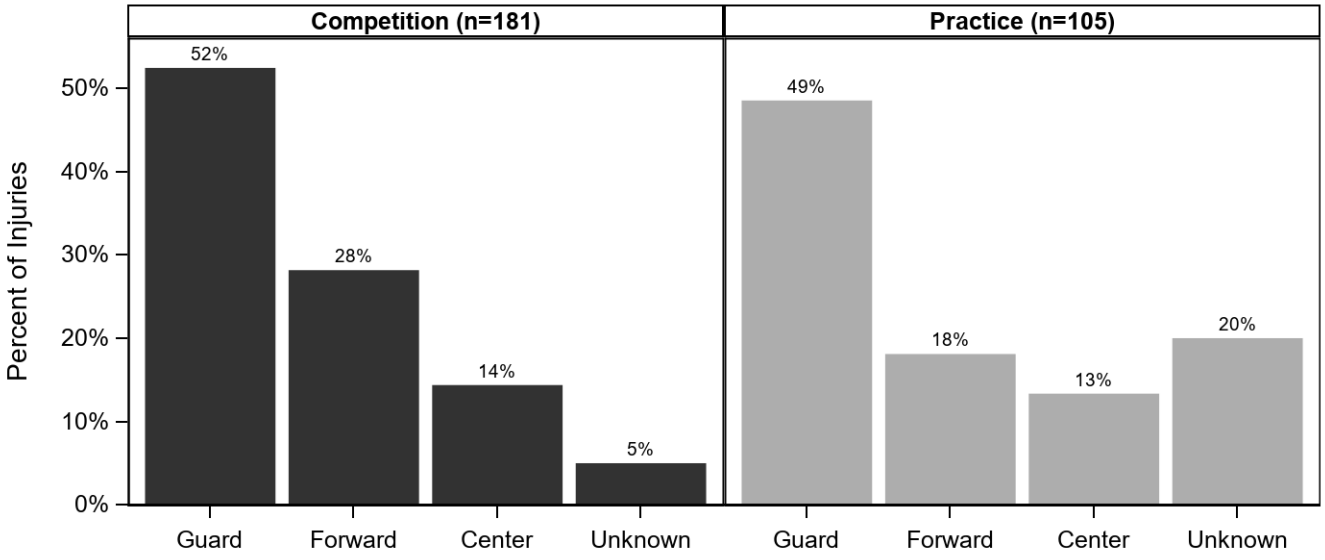


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Table 8.9 Activities Leading to Girls' Basketball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
General Play	29	15.8%	32	30.2%	61	21.1%
Defending	41	22.4%	12	11.3%	53	18.3%
Rebounding	36	19.7%	12	11.3%	48	16.6%
Unknown	19	10.4%	14	13.2%	33	11.4%
Chasing Loose Ball	18	9.8%	7	6.6%	25	8.7%
Ball Handling/Dribbling	18	9.8%	6	5.7%	24	8.3%
Shooting	14	7.7%	7	6.6%	21	7.3%
Receiving Pass	4	2.2%	5	4.7%	9	3.1%
Conditioning	0	0.0%	8	7.5%	8	2.8%
Passing	2	1.1%	1	0.9%	3	1.0%
Other	1	0.5%	2	1.9%	3	1.0%
Screening	1	0.5%	0	0.0%	1	0.3%
Total	***183***	***100.0%***	***106***	***100.0%***	***289***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

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Table 8.10 Activity Resulting in Girls' Basketball Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Ball Handling/Dribbling	17	11.0%	2	7.7%	0	0.0%	3	7.7%	2	3.8%
Chasing Loose Ball	11	7.1%	7	26.9%	2	11.8%	3	7.7%	2	3.8%
Conditioning	5	3.2%	0	0.0%	0	0.0%	0	0.0%	3	5.8%
Defending	27	17.4%	3	11.5%	8	47.1%	8	20.5%	7	13.5%
General Play	36	23.2%	0	0.0%	0	0.0%	8	20.5%	17	32.7%
Other	1	0.6%	0	0.0%	0	0.0%	1	2.6%	1	1.9%
Passing	1	0.6%	0	0.0%	0	0.0%	1	2.6%	1	1.9%
Rebounding	30	19.4%	8	30.8%	2	11.8%	5	12.8%	3	5.8%
Receiving Pass	3	1.9%	1	3.8%	4	23.5%	1	2.6%	0	0.0%
Screening	1	0.6%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Shooting	10	6.5%	1	3.8%	0	0.0%	3	7.7%	7	13.5%
Unknown	13	8.4%	4	15.4%	1	5.9%	6	15.4%	9	17.3%
Total	***155***	***100.0%***	***26***	***100.0%***	***17***	***100.0%***	***39***	***100.0%***	***52***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

IX. Boys' Wrestling Injury Epidemiology

Table 9.1 Boys' Wrestling Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***530***	***183,990***	***2.88***
Competition	236	47,341	4.99
Practice	294	136,649	2.15

* All analyses in this chapter present un-weighted data.

Table 9.2 Demographic Characteristics of Injured Boys' Wrestling Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	117	23.4%
Sophomore	109	21.8%
Junior	149	29.7%
Senior	126	25.1%
Total	***501***	***100.0%***

Age (years)	
Minimum	13
Maximum	19
Mean (SD)	15.9 (1.3)
n	413

BMI	
Minimum	17.2
Maximum	41.8
Mean (SD)	23.7 (4.2)
n	262

* Throughout this chapter, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 9.1 Diagnosis of Boys' Wrestling Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

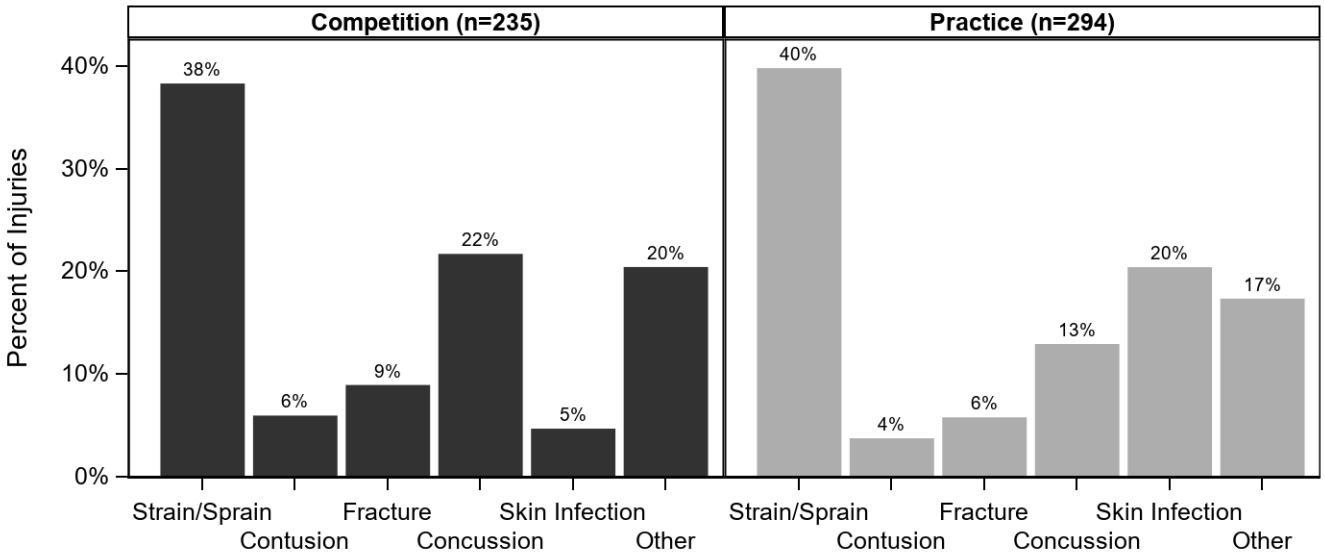


Table 9.3 Body Site of Boys' Wrestling Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

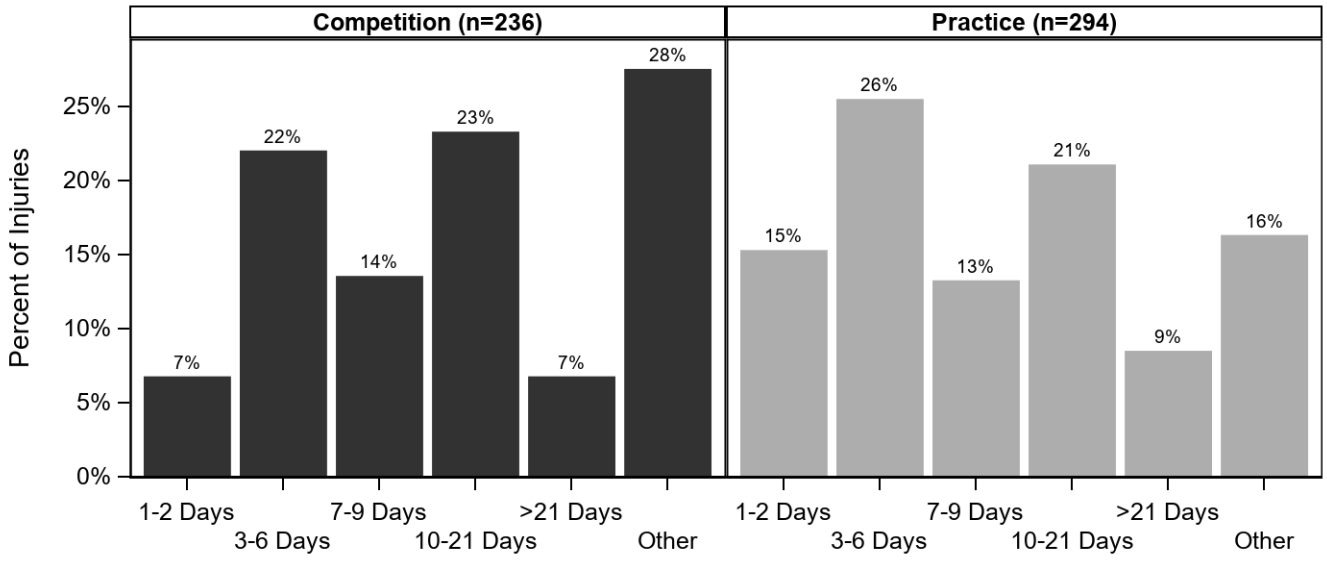
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face	55	23.3%	72	24.5%	127	24.0%
Knee	46	19.5%	49	16.7%	95	17.9%
Shoulder	33	14.0%	31	10.5%	64	12.1%
Arm/Elbow	27	11.4%	30	10.2%	57	10.8%
Hand/Wrist	17	7.2%	25	8.5%	42	7.9%
Ankle	13	5.5%	25	8.5%	38	7.2%
Trunk	17	7.2%	14	4.8%	31	5.8%
Hip/Thigh/Upper Leg	8	3.4%	12	4.1%	20	3.8%
Neck	7	3.0%	9	3.1%	16	3.0%
Foot	1	0.4%	12	4.1%	13	2.5%
Systemic	3	1.3%	7	2.4%	10	1.9%
Other	8	3.4%	1	0.3%	9	1.7%
Lower Leg	1	0.4%	7	2.4%	8	1.5%
Total	***236***	***100.0%***	***294***	***100.0%***	***530***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 9.4 Ten Most Common Boys' Wrestling Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=235)		Practice (n=294)		Overall (n=529)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face Concussion	50	21.3%	38	12.9%	88	16.6%
Knee Other	25	10.6%	24	8.2%	49	9.3%
Shoulder Strain/Sprain	20	8.5%	17	5.8%	37	7.0%
Ankle Strain/Sprain	12	5.1%	24	8.2%	36	6.8%
Knee Strain/Sprain	13	5.5%	21	7.1%	34	6.4%
Head/Face Other	2	0.9%	31	10.5%	33	6.2%
Arm/Elbow Strain/Sprain	16	6.8%	13	4.4%	29	5.5%
Arm/Elbow Other	8	3.4%	16	5.4%	24	4.5%
Shoulder Other	13	5.5%	11	3.7%	24	4.5%
Hand/Wrist Fracture	11	4.7%	7	2.4%	18	3.4%

Figure 9.2 Time Loss of Boys' Wrestling Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 9.5 Boys' Wrestling Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	13	5.7%	13	4.4%	26	5.0%
Did Not Require Surgery	216	94.3%	280	95.6%	496	95.0%
Total	***229***	***100.0%***	***293***	***100.0%***	***522***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 9.3 History of Boys' Wrestling Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

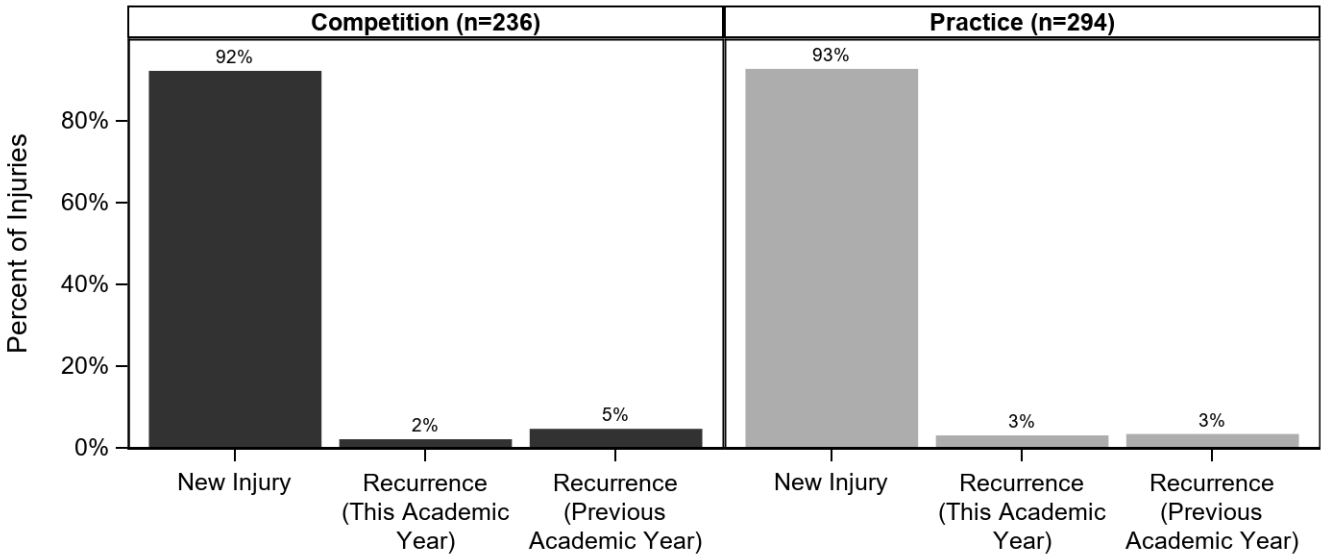


Table 9.6 Time during Season of Boys' Wrestling Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	80	15.1%
Regular Season	414	78.1%
Post Season	34	6.4%
Unknown/Other	2	0.4%
Total	***530***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 9.7 Competition-Related Variables for Boys' Wrestling Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	6	2.9%
First Period	22	10.7%
Second Period	52	25.2%
Third Period	32	15.5%
Overtime	1	0.5%
Unknown	93	45.1%
Total	***206***	***100.0%***

Mat Location		
Within 28ft Circle	145	68.7%
Out of Bounds	3	1.4%
Unknown	63	29.9%
Total	***211***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 9.8 Practice-Related Variables for Boys' Wrestling Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	27	9.8%
Second 1/2 Hour	18	6.5%
1-2 Hours into Practice	115	41.8%
>2 Hours into Practice	16	5.8%
Unknown	99	36.0%
Total	***275***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 9.9 Activities Leading to Boys' Wrestling Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
Takedown	89	41.8%	55	21.2%	144	30.4%
Unknown	51	23.9%	54	20.8%	105	22.2%
Sparring	21	9.9%	54	20.8%	75	15.9%
N/A **	8	3.8%	57	21.9%	65	13.7%
Fall	14	6.6%	7	2.7%	21	4.4%
Reversal	6	2.8%	9	3.5%	15	3.2%
Other	6	2.8%	6	2.3%	12	2.5%
Conditioning	0	0.0%	10	3.8%	10	2.1%
Near Fall	6	2.8%	4	1.5%	10	2.1%
Riding	9	4.2%	0	0.0%	9	1.9%
Escape	3	1.4%	4	1.5%	7	1.5%
Total	***213***	***100.0%***	***260***	***100.0%***	***473***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.
** N/A category consists of skin infections, overuse injuries, heat illness, etc.

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Table 9.10 Activity Resulting in Boys' Wrestling Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	n	%	n	%	n	%	n	%	n	%
Conditioning	8	4.5%	0	0.0%	0	0.0%	1	1.3%	1	0.6%
Escape	6	3.4%	0	0.0%	0	0.0%	0	0.0%	1	0.6%
Fall	8	4.5%	0	0.0%	6	16.2%	4	5.1%	3	1.9%
N/A **	0	0.0%	0	0.0%	0	0.0%	0	0.0%	65	41.7%
Near Fall	8	4.5%	1	4.5%	0	0.0%	0	0.0%	1	0.6%
Other	3	1.7%	1	4.5%	1	2.7%	4	5.1%	3	1.9%
Reversal	7	3.9%	0	0.0%	1	2.7%	3	3.8%	4	2.6%
Riding	3	1.7%	2	9.1%	1	2.7%	1	1.3%	2	1.3%
Sparring	33	18.4%	5	22.7%	6	16.2%	16	20.5%	15	9.6%
Takedown	63	35.2%	10	45.5%	11	29.7%	28	35.9%	32	20.5%
Unknown	40	22.3%	3	13.6%	11	29.7%	21	26.9%	29	18.6%
Total	***179***	***100.0%***	***22***	***100.0%***	***37***	***100.0%***	***78***	***100.0%***	***156***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.
** N/A category consists of skin infections, overuse injuries, heat illness, etc.

X. Girls' Wrestling Injury Epidemiology

Table 10.1 Girls' Wrestling Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***118***	***35,275***	***3.35***
Competition	51	7,435	6.86
Practice	67	27,840	2.41

* All analyses in this chapter present un-weighted data.

Table 10.2 Demographic Characteristics of Injured Girls' Wrestling Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	37	33.0%
Sophomore	30	26.8%
Junior	22	19.6%
Senior	23	20.5%
Total	***112***	***100.0%***

Age (years)	
Minimum	14
Maximum	18
Mean (SD)	15.7 (1.3)
n	93

BMI	
Minimum	16.9
Maximum	35.0
Mean (SD)	23.9 (4.1)
n	63

* Throughout this chapter, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 10.1 Diagnosis of Girls' Wrestling Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

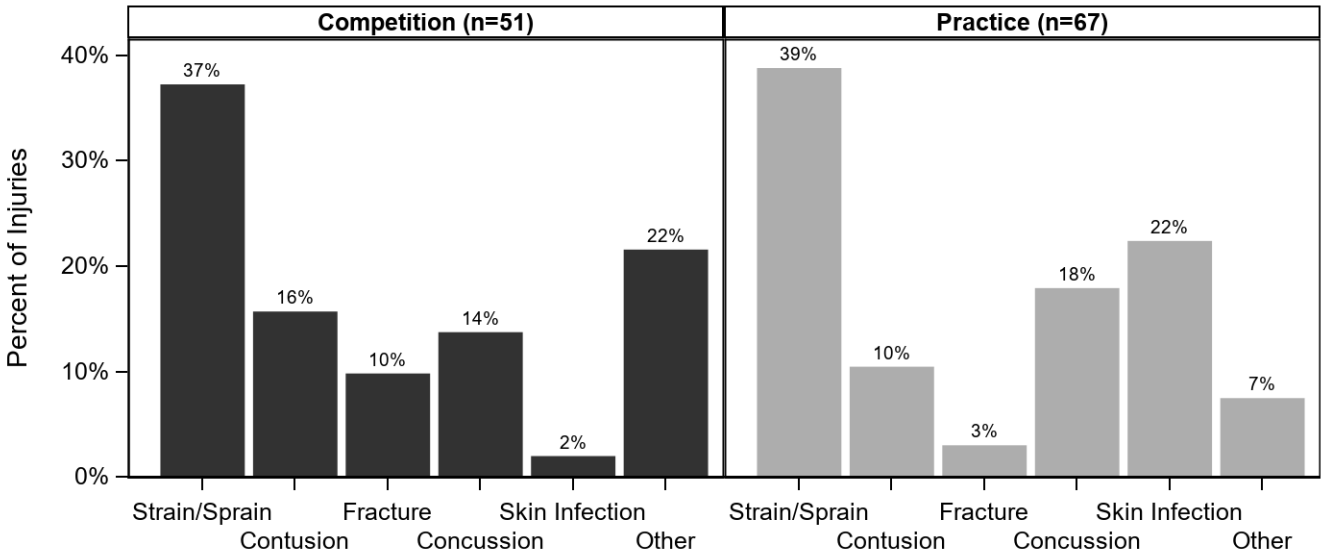


Table 10.3 Body Site of Girls' Wrestling Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

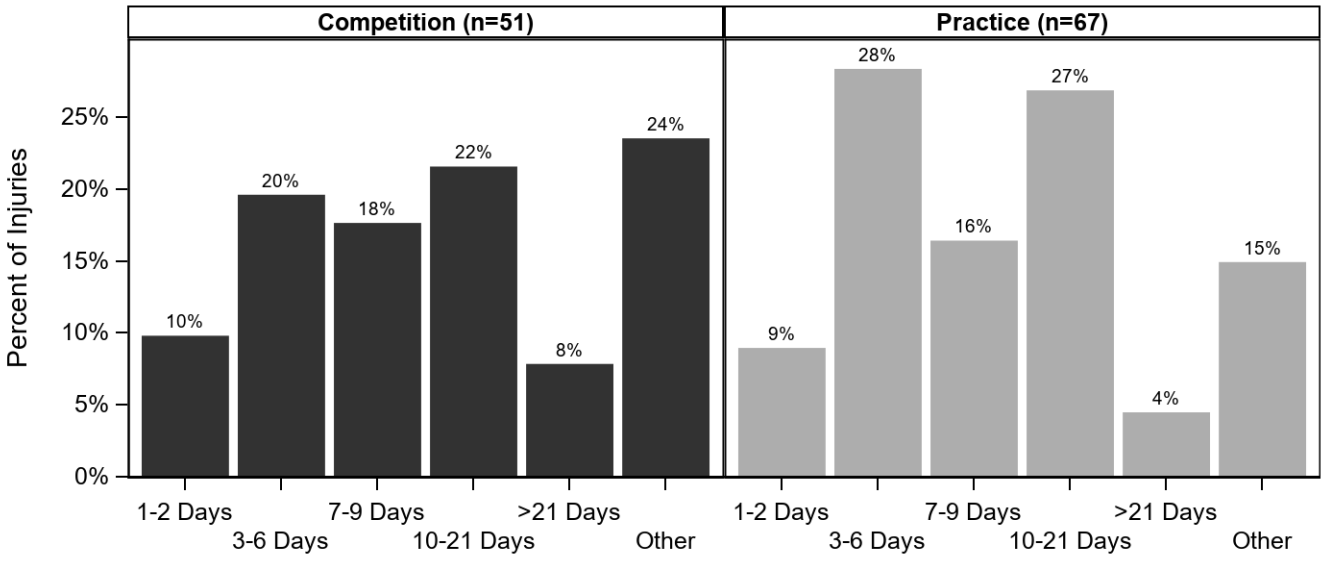
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face	11	21.6%	18	26.9%	29	24.6%
Ankle	7	13.7%	13	19.4%	20	16.9%
Arm/Elbow	4	7.8%	13	19.4%	17	14.4%
Knee	8	15.7%	8	11.9%	16	13.6%
Shoulder	10	19.6%	6	9.0%	16	13.6%
Trunk	4	7.8%	3	4.5%	7	5.9%
Hand/Wrist	2	3.9%	3	4.5%	5	4.2%
Hip/Thigh/Upper Leg	2	3.9%	2	3.0%	4	3.4%
Foot	1	2.0%	1	1.5%	2	1.7%
Other	1	2.0%	0	0.0%	1	0.8%
Systemic	1	2.0%	0	0.0%	1	0.8%
Total	***51***	***100.0%***	***67***	***100.0%***	***118***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 10.4 Ten Most Common Girls' Wrestling Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=51)		Practice (n=67)		Overall (n=118)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Ankle Strain/Sprain	7	13.7%	13	19.4%	20	16.9%
Head/Face Concussion	7	13.7%	12	17.9%	19	16.1%
Arm/Elbow Other	2	3.9%	9	13.4%	11	9.3%
Shoulder Other	6	11.8%	3	4.5%	9	7.6%
Knee Contusion	3	5.9%	4	6.0%	7	5.9%
Head/Face Other	1	2.0%	5	7.5%	6	5.1%
Knee Strain/Sprain	3	5.9%	3	4.5%	6	5.1%
Shoulder Strain/Sprain	4	7.8%	2	3.0%	6	5.1%
Arm/Elbow Strain/Sprain	0	0.0%	3	4.5%	3	2.5%
Hand/Wrist Strain/Sprain	2	3.9%	1	1.5%	3	2.5%

Figure 10.2 Time Loss of Girls' Wrestling Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 10.5 Girls' Wrestling Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	3	5.9%	2	3.0%	5	4.2%
Did Not Require Surgery	48	94.1%	65	97.0%	113	95.8%
Total	***51***	***100.0%***	***67***	***100.0%***	***118***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 10.3 History of Girls' Wrestling Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

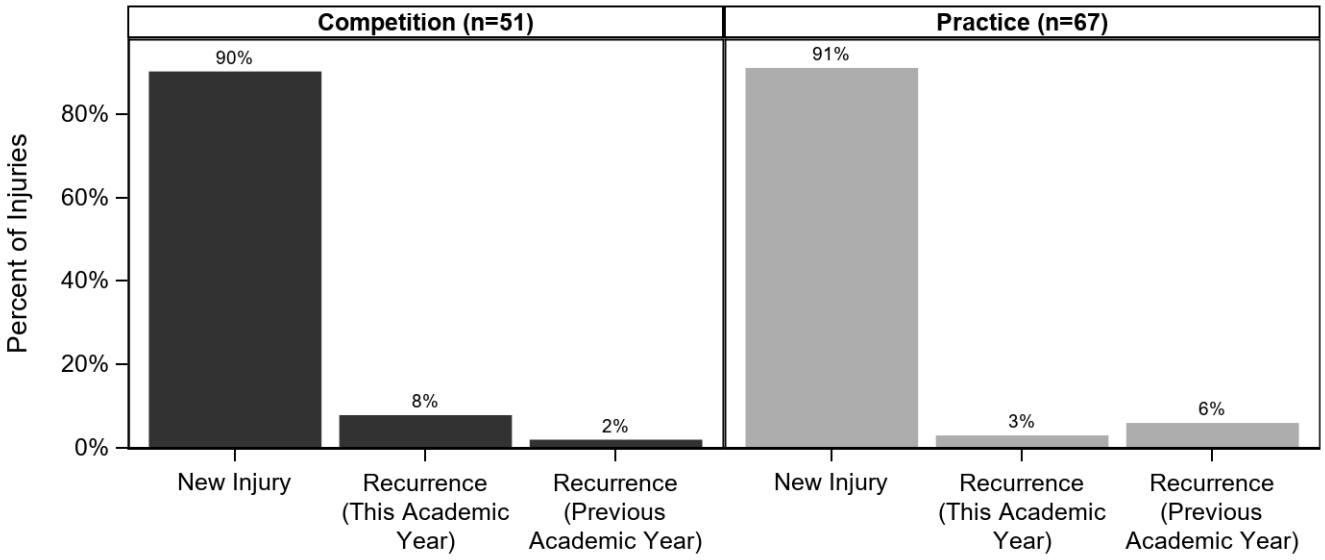


Table 10.6 Time during Season of Girls' Wrestling Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	21	17.8%
Regular Season	88	74.6%
Post Season	9	7.6%
Total	***118***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 10.7 Competition-Related Variables for Girls' Wrestling Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	2	4.5%
First Period	7	15.9%
Second Period	7	15.9%
Third Period	6	13.6%
Unknown	22	50.0%
Total	***44***	***100.0%***

Mat Location		
Within 28ft Circle	29	64.4%
Unknown	16	35.6%
Total	***45***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 10.8 Practice-Related Variables for Girls' Wrestling Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	7	10.8%
Second 1/2 Hour	6	9.2%
1-2 Hours into Practice	20	30.8%
>2 Hours into Practice	2	3.1%
Unknown	30	46.2%
Total	***65***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 10.9 Activities Leading to Girls' Wrestling Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
Takedown	18	39.1%	11	17.7%	29	26.9%
Unknown	10	21.7%	14	22.6%	24	22.2%
N/A **	2	4.3%	14	22.6%	16	14.8%
Sparring	3	6.5%	10	16.1%	13	12.0%
Conditioning	0	0.0%	5	8.1%	5	4.6%
Fall	4	8.7%	1	1.6%	5	4.6%
Escape	1	2.2%	4	6.5%	5	4.6%
Near Fall	4	8.7%	0	0.0%	4	3.7%
Riding	3	6.5%	1	1.6%	4	3.7%
Reversal	1	2.2%	2	3.2%	3	2.8%
Total	***46***	***100.0%***	***62***	***100.0%***	***108***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.
** N/A category consists of skin infections, overuse injuries, heat illness, etc.

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Table 10.10 Activity Resulting in Girls' Wrestling Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Conditioning	4	9.3%	1	8.3%	0	0.0%	0	0.0%	0	0.0%
Escape	4	9.3%	1	8.3%	0	0.0%	0	0.0%	0	0.0%
Fall	1	2.3%	3	25.0%	1	14.3%	0	0.0%	0	0.0%
N/A **	0	0.0%	0	0.0%	0	0.0%	0	0.0%	16	51.6%
Near Fall	2	4.7%	0	0.0%	0	0.0%	0	0.0%	2	6.5%
Reversal	2	4.7%	0	0.0%	1	14.3%	0	0.0%	0	0.0%
Riding	2	4.7%	0	0.0%	1	14.3%	1	6.7%	0	0.0%
Sparring	4	9.3%	1	8.3%	0	0.0%	5	33.3%	3	9.7%
Takedown	11	25.6%	4	33.3%	4	57.1%	5	33.3%	5	16.1%
Unknown	13	30.2%	2	16.7%	0	0.0%	4	26.7%	5	16.1%
Total	***43***	***100.0%***	***12***	***100.0%***	***7***	***100.0%***	***15***	***100.0%***	***31***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.
** N/A category consists of skin infections, overuse injuries, heat illness, etc.

XI. Boys' Baseball Injury Epidemiology

Table 11.1 Boys' Baseball Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***206***	***185,065***	***1.11***
Competition	118	69,493	1.70
Practice	88	115,572	0.76

* All analyses in this chapter present un-weighted data.

Table 11.2 Demographic Characteristics of Injured Boys' Baseball Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	32	16.6%
Sophomore	50	25.9%
Junior	58	30.1%
Senior	53	27.5%
Total	***193***	***100.0%***

Age (years)	
Minimum	13
Maximum	18
Mean (SD)	16.3 (1.2)
n	150

BMI	
Minimum	17.6
Maximum	41.0
Mean (SD)	24.2 (3.7)
n	120

* Throughout this chapter, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 11.1 Diagnosis of Boys' Baseball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

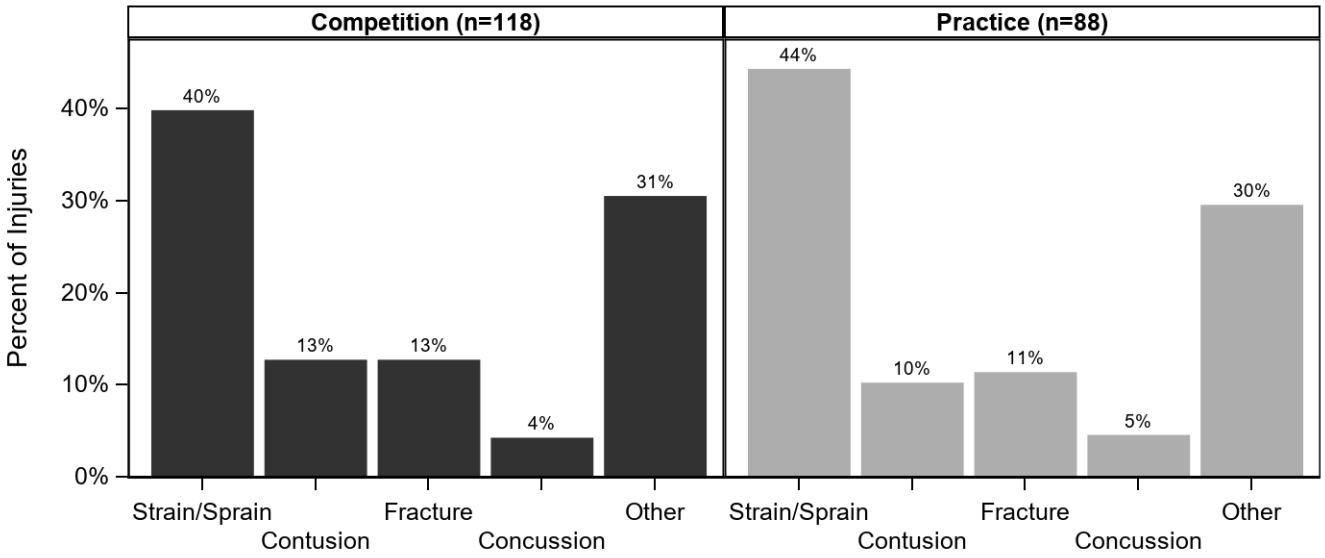


Table 11.3 Body Site of Boys' Baseball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

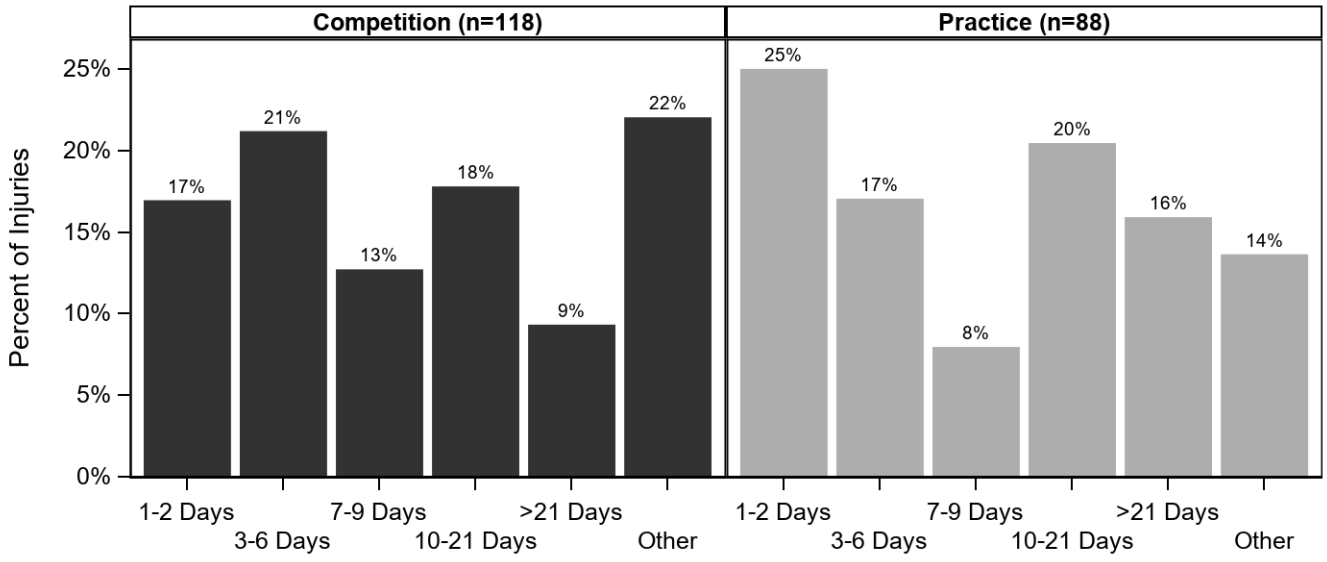
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Shoulder	23	19.5%	16	18.2%	39	18.9%
Hip/Thigh/Upper Leg	16	13.6%	16	18.2%	32	15.5%
Arm/Elbow	15	12.7%	14	15.9%	29	14.1%
Head/Face	14	11.9%	10	11.4%	24	11.7%
Knee	14	11.9%	8	9.1%	22	10.7%
Ankle	10	8.5%	6	6.8%	16	7.8%
Hand/Wrist	12	10.2%	4	4.5%	16	7.8%
Trunk	5	4.2%	7	8.0%	12	5.8%
Lower Leg	6	5.1%	3	3.4%	9	4.4%
Foot	0	0.0%	2	2.3%	2	1.0%
Other	1	0.8%	1	1.1%	2	1.0%
Systemic	1	0.8%	1	1.1%	2	1.0%
Neck	1	0.8%	0	0.0%	1	0.5%
Total	***118***	***100.0%***	***88***	***100.0%***	***206***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 11.4 Ten Most Common Boys' Baseball Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=118)		Practice (n=88)		Overall (n=206)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Hip/Thigh/Upper Leg Strain/Sprain	15	12.7%	14	15.9%	29	14.1%
Shoulder Other	11	9.3%	8	9.1%	19	9.2%
Ankle Strain/Sprain	9	7.6%	5	5.7%	14	6.8%
Knee Other	10	8.5%	4	4.5%	14	6.8%
Shoulder Strain/Sprain	9	7.6%	5	5.7%	14	6.8%
Arm/Elbow Strain/Sprain	7	5.9%	6	6.8%	13	6.3%
Head/Face Concussion	5	4.2%	4	4.5%	9	4.4%
Arm/Elbow Other	5	4.2%	3	3.4%	8	3.9%
Hand/Wrist Fracture	6	5.1%	2	2.3%	8	3.9%
Head/Face Fracture	4	3.4%	3	3.4%	7	3.4%

Figure 11.2 Time Loss of Boys' Baseball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 11.5 Boys' Baseball Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	7	6.0%	5	5.7%	12	5.9%
Did Not Require Surgery	110	94.0%	82	94.3%	192	94.1%
Total	***117***	***100.0%***	***87***	***100.0%***	***204***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 11.3 History of Boys' Baseball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

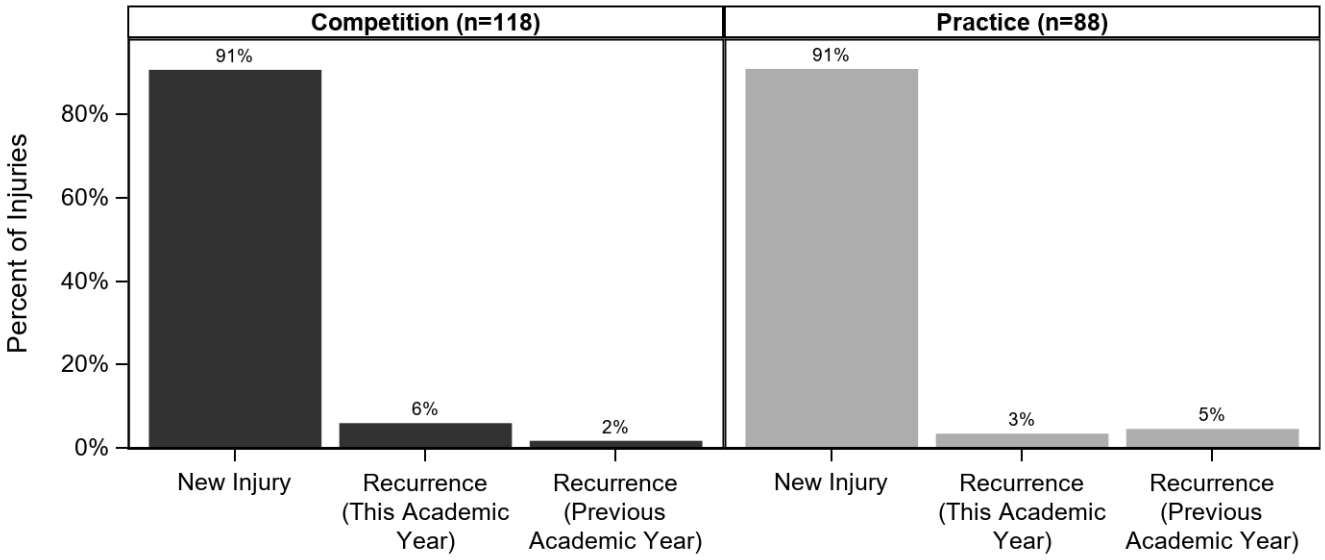


Table 11.6 Time during Season of Boys' Baseball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	49	24.0%
Regular Season	143	70.1%
Post Season	12	5.9%
Total	***204***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 11.7 Competition-Related Variables for Boys' Baseball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	7	6.5%
First Inning	6	5.6%
Second Inning	12	11.1%
Third Inning	13	12.0%
Fourth Inning	16	14.8%
Fifth Inning	15	13.9%
Sixth Inning	6	5.6%
Seventh Inning	4	3.7%
Extra Inning	1	0.9%
Unknown	28	25.9%
Total	***108***	***100.0%***

Field Location		
Pitchers Mound	18	16.7%
Home Plate	21	19.4%
First Base	23	21.3%
Second Base	10	9.3%
Third Base	9	8.3%
Infield	3	2.8%
Outfield	14	13.0%
Foul Territory	1	0.9%
Other	2	1.9%
Unknown	7	6.5%
Total	***108***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 11.8 Practice-Related Variables for Boys' Baseball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	10	11.8%
Second 1/2 Hour	15	17.6%
1-2 Hours into Practice	38	44.7%
>2 Hours into Practice	2	2.4%
Unknown	20	23.5%
Total	***85***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 11.4 Player Position of Boys' Baseball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

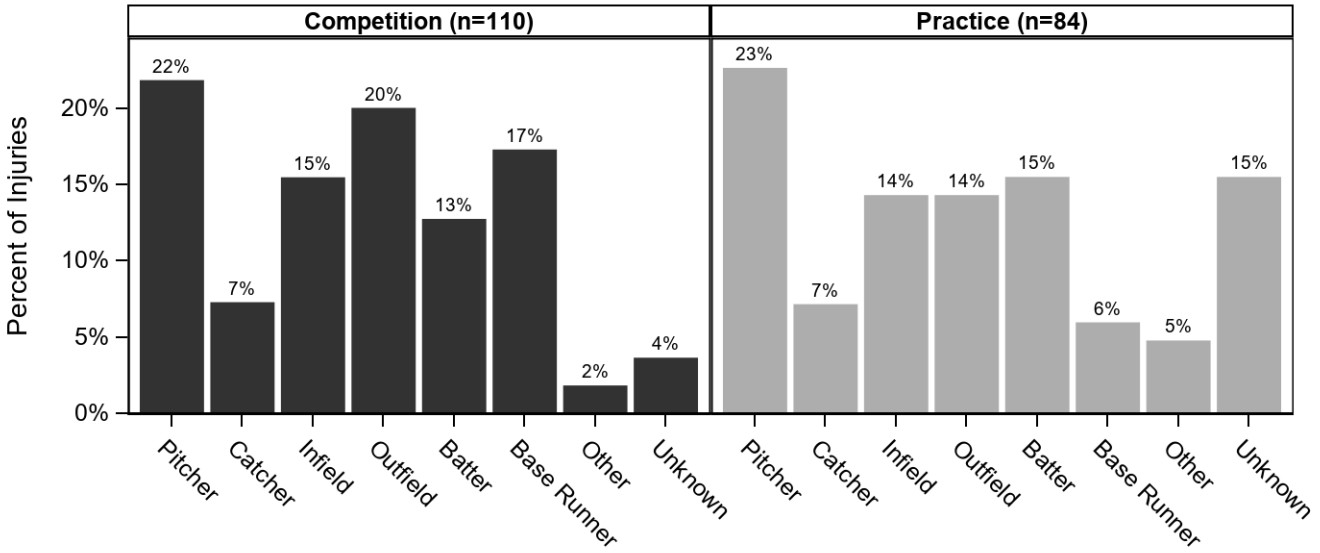


Table 11.9 Activities Leading to Boys' Baseball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
Running Bases	29	26.1%	12	14.1%	41	20.9%
Pitching	21	18.9%	14	16.5%	35	17.9%
Batting	11	9.9%	15	17.6%	26	13.3%
Fielding a Batted Ball	15	13.5%	8	9.4%	23	11.7%
Throwing	5	4.5%	10	11.8%	15	7.7%
Sliding	13	11.7%	2	2.4%	15	7.7%
Catching	8	7.2%	2	2.4%	10	5.1%
Unknown	4	3.6%	4	4.7%	8	4.1%
Conditioning	1	0.9%	6	7.1%	7	3.6%
Fielding a Thrown Ball	2	1.8%	4	4.7%	6	3.1%
Other	2	1.8%	3	3.5%	5	2.6%
General Play	0	0.0%	5	5.9%	5	2.6%
Total	***111***	***100.0%***	***85***	***100.0%***	***196***	***100.0%***

* Totals and n’s are not always equal due to slight rounding or missing responses.

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Table 11.10 Activity Resulting in Boys' Baseball Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Batting	7	8.4%	6	25.0%	5	20.8%	0	0.0%	8	14.3%
Catching	5	6.0%	1	4.2%	0	0.0%	0	0.0%	4	7.1%
Conditioning	6	7.2%	0	0.0%	0	0.0%	0	0.0%	1	1.8%
Fielding a Batted Ball	5	6.0%	5	20.8%	5	20.8%	3	33.3%	5	8.9%
Fielding a Thrown Ball	1	1.2%	2	8.3%	0	0.0%	2	22.2%	1	1.8%
General Play	1	1.2%	1	4.2%	0	0.0%	0	0.0%	3	5.4%
Other	1	1.2%	1	4.2%	0	0.0%	1	11.1%	2	3.6%
Pitching	19	22.9%	3	12.5%	3	12.5%	0	0.0%	10	17.9%
Running Bases	23	27.7%	3	12.5%	4	16.7%	3	33.3%	8	14.3%
Sliding	4	4.8%	1	4.2%	3	12.5%	0	0.0%	7	12.5%
Throwing	7	8.4%	0	0.0%	3	12.5%	0	0.0%	5	8.9%
Unknown	4	4.8%	1	4.2%	1	4.2%	0	0.0%	2	3.6%
Total	***83***	***100.0%***	***24***	***100.0%***	***24***	***100.0%***	***9***	***100.0%***	***56***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

XII. Girls' Softball Injury Epidemiology

Table 12.1 Girls' Softball Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***154***	***115,592***	***1.33***
Competition	80	40,812	1.96
Practice	74	74,780	0.99

* All analyses in this chapter present un-weighted data.

Table 12.2 Demographic Characteristics of Injured Girls' Softball Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	37	25.0%
Sophomore	43	29.1%
Junior	40	27.0%
Senior	28	18.9%
Total	***148***	***100.0%***

Age (years)	
Minimum	13
Maximum	18
Mean (SD)	15.9 (1.2)
n	113

BMI	
Minimum	17.2
Maximum	32.2
Mean (SD)	22.7 (3.3)
n	92

* Throughout this chapter, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 12.1 Diagnosis of Girls' Softball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

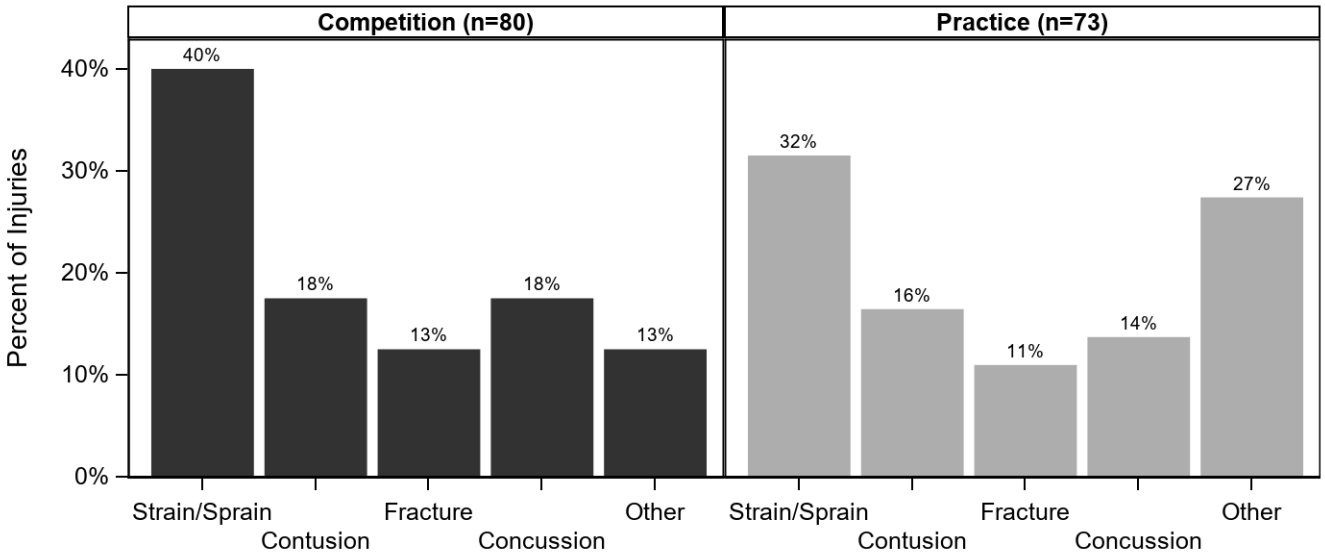


Table 12.3 Body Site of Girls' Softball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

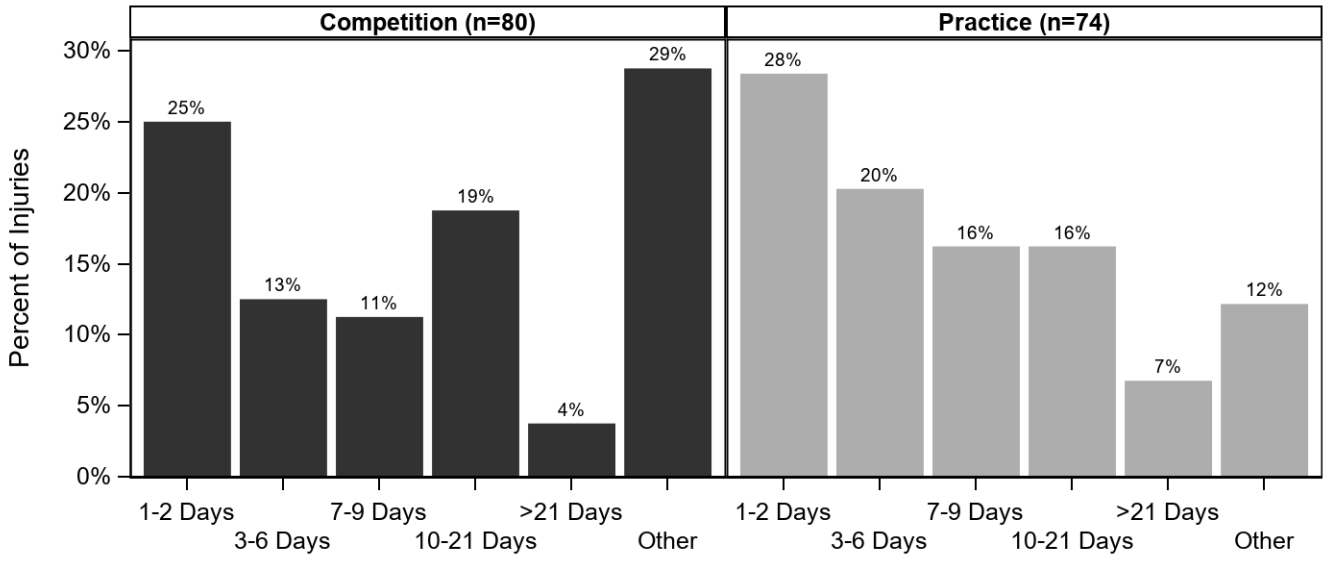
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face	17	21.3%	17	23.0%	34	22.1%
Knee	14	17.5%	11	14.9%	25	16.2%
Ankle	13	16.3%	10	13.5%	23	14.9%
Hand/Wrist	13	16.3%	5	6.8%	18	11.7%
Shoulder	5	6.3%	7	9.5%	12	7.8%
Trunk	2	2.5%	8	10.8%	10	6.5%
Foot	3	3.8%	5	6.8%	8	5.2%
Hip/Thigh/Upper Leg	5	6.3%	3	4.1%	8	5.2%
Arm/Elbow	4	5.0%	3	4.1%	7	4.5%
Lower Leg	2	2.5%	3	4.1%	5	3.2%
Neck	1	1.3%	1	1.4%	2	1.3%
Other	0	0.0%	1	1.4%	1	0.6%
Systemic	1	1.3%	0	0.0%	1	0.6%
Total	***80***	***100.0%***	***74***	***100.0%***	***154***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 12.4 Ten Most Common Girls' Softball Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=80)		Practice (n=73)		Overall (n=153)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face Concussion	14	17.5%	10	13.7%	24	15.7%
Ankle Strain/Sprain	12	15.0%	9	12.3%	21	13.7%
Knee Strain/Sprain	8	10.0%	2	2.7%	10	6.5%
Shoulder Other	4	5.0%	5	6.8%	9	5.9%
Hand/Wrist Fracture	6	7.5%	2	2.7%	8	5.2%
Hip/Thigh/Upper Leg Strain/Sprain	5	6.3%	3	4.1%	8	5.2%
Knee Other	1	1.3%	7	9.6%	8	5.2%
Trunk Strain/Sprain	2	2.5%	5	6.8%	7	4.6%
Knee Contusion	5	6.3%	1	1.4%	6	3.9%
Hand/Wrist Contusion	3	3.8%	2	2.7%	5	3.3%

Figure 12.2 Time Loss of Girls' Softball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 12.5 Girls' Softball Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	6	7.5%	2	2.8%	8	5.3%
Did Not Require Surgery	74	92.5%	70	97.2%	144	94.7%
Total	***80***	***100.0%***	***72***	***100.0%***	***152***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 12.3 History of Girls' Softball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

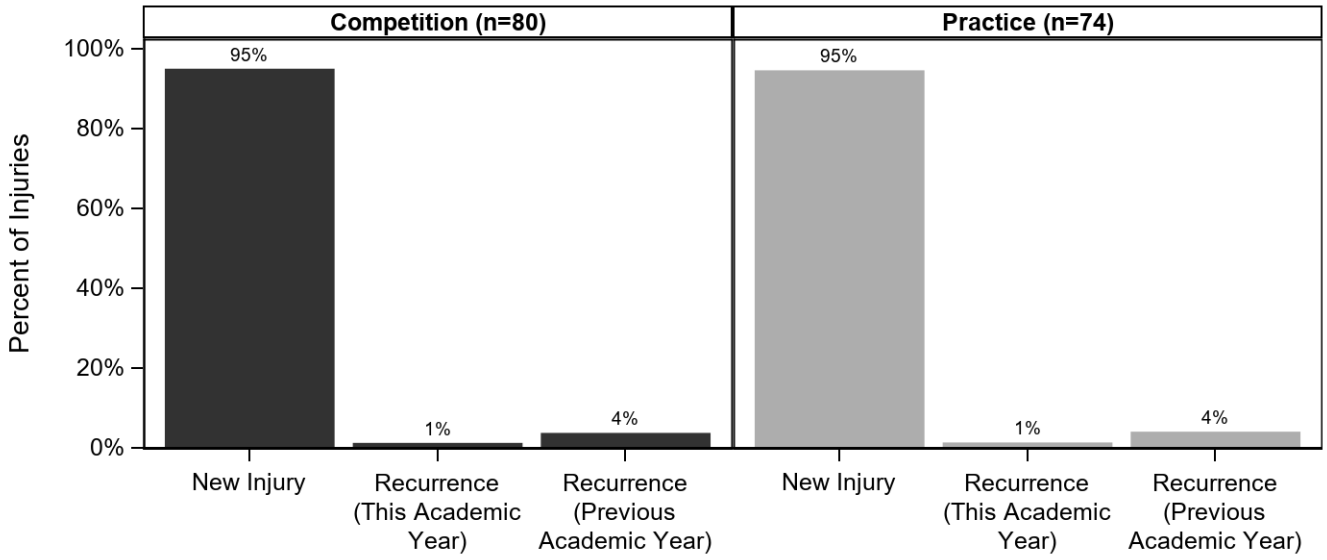


Table 12.6 Time during Season of Girls' Softball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	40	26.0%
Regular Season	107	69.5%
Post Season	7	4.5%
Total	***154***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 12.7 Competition-Related Variables for Girls' Softball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	4	5.4%
First Inning	5	6.8%
Second Inning	1	1.4%
Third Inning	8	10.8%
Fourth Inning	10	13.5%
Fifth Inning	9	12.2%
Sixth Inning	4	5.4%
Seventh Inning	1	1.4%
Unknown	32	43.2%
Total	***74***	***100.0%***

Field Location		
Pitchers Mound	8	10.5%
Home Plate	17	22.4%
First Base	8	10.5%
Second Base	15	19.7%
Third Base	5	6.6%
Infield	2	2.6%
Outfield	5	6.6%
Foul Territory	2	2.6%
Other	5	6.6%
Unknown	9	11.8%
Total	***76***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 12.8 Practice-Related Variables for Girls' Softball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	4	5.6%
Second 1/2 Hour	6	8.3%
1-2 Hours into Practice	42	58.3%
>2 Hours into Practice	5	6.9%
Unknown	15	20.8%
Total	***72***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 12.4 Player Position of Girls' Softball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

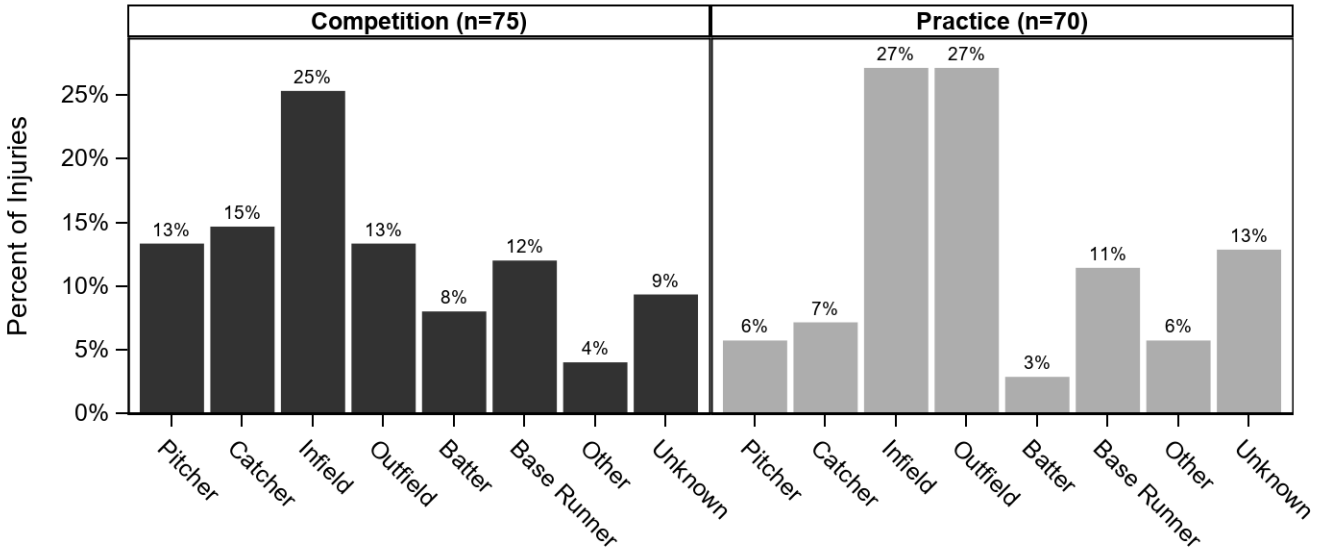


Table 12.9 Activities Leading to Girls' Softball Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
Fielding a Batted Ball	12	15.6%	15	21.1%	27	18.2%
Running Bases	13	16.9%	9	12.7%	22	14.9%
Catching	11	14.3%	9	12.7%	20	13.5%
Sliding	10	13.0%	5	7.0%	15	10.1%
General Play	4	5.2%	9	12.7%	13	8.8%
Batting	6	7.8%	5	7.0%	11	7.4%
Throwing	2	2.6%	8	11.3%	10	6.8%
Pitching	8	10.4%	1	1.4%	9	6.1%
Fielding a Thrown Ball	5	6.5%	3	4.2%	8	5.4%
Other	3	3.9%	2	2.8%	5	3.4%
Unknown	3	3.9%	2	2.8%	5	3.4%
Conditioning	0	0.0%	3	4.2%	3	2.0%
Total	***77***	***100.0%***	***71***	***100.0%***	***148***	***100.0%***

* Totals and n’s are not always equal due to slight rounding or missing responses.

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Table 12.10 Activity Resulting in Girls' Softball Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Batting	2	3.9%	4	16.0%	2	11.1%	0	0.0%	3	10.3%
Catching	2	3.9%	3	12.0%	3	16.7%	10	41.7%	1	3.4%
Conditioning	0	0.0%	0	0.0%	1	5.6%	0	0.0%	2	6.9%
Fielding a Batted Ball	8	15.7%	7	28.0%	4	22.2%	5	20.8%	3	10.3%
Fielding a Thrown Ball	3	5.9%	1	4.0%	2	11.1%	0	0.0%	2	6.9%
General Play	4	7.8%	1	4.0%	1	5.6%	0	0.0%	7	24.1%
Other	1	2.0%	2	8.0%	0	0.0%	2	8.3%	0	0.0%
Pitching	3	5.9%	4	16.0%	1	5.6%	0	0.0%	1	3.4%
Running Bases	15	29.4%	1	4.0%	1	5.6%	3	12.5%	2	6.9%
Sliding	9	17.6%	2	8.0%	1	5.6%	1	4.2%	2	6.9%
Throwing	1	2.0%	0	0.0%	2	11.1%	2	8.3%	5	17.2%
Unknown	3	5.9%	0	0.0%	0	0.0%	1	4.2%	1	3.4%
Total	***51***	***100.0%***	***25***	***100.0%***	***18***	***100.0%***	***24***	***100.0%***	***29***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

XIII. Girls' Field Hockey Injury Epidemiology

Table 13.1 Girls' Field Hockey Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***86***	***45,792***	***1.88***
Competition	51	15,708	3.25
Practice	35	30,084	1.16

* All analyses in this report present un-weighted data.

Table 13.2 Demographic Characteristics of Injured Girls' Field Hockey Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	12	14.8%
Sophomore	23	28.4%
Junior	23	28.4%
Senior	23	28.4%
Total	***81***	***100.0%***

Age (years)	
Minimum	13
Maximum	18
Mean (SD)	15.8 (1.2)
n	71

BMI	
Minimum	15.5
Maximum	28.3
Mean (SD)	20.9 (2.5)
n	59

* Throughout this chapter, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 13.1 Diagnosis of Girls' Field Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

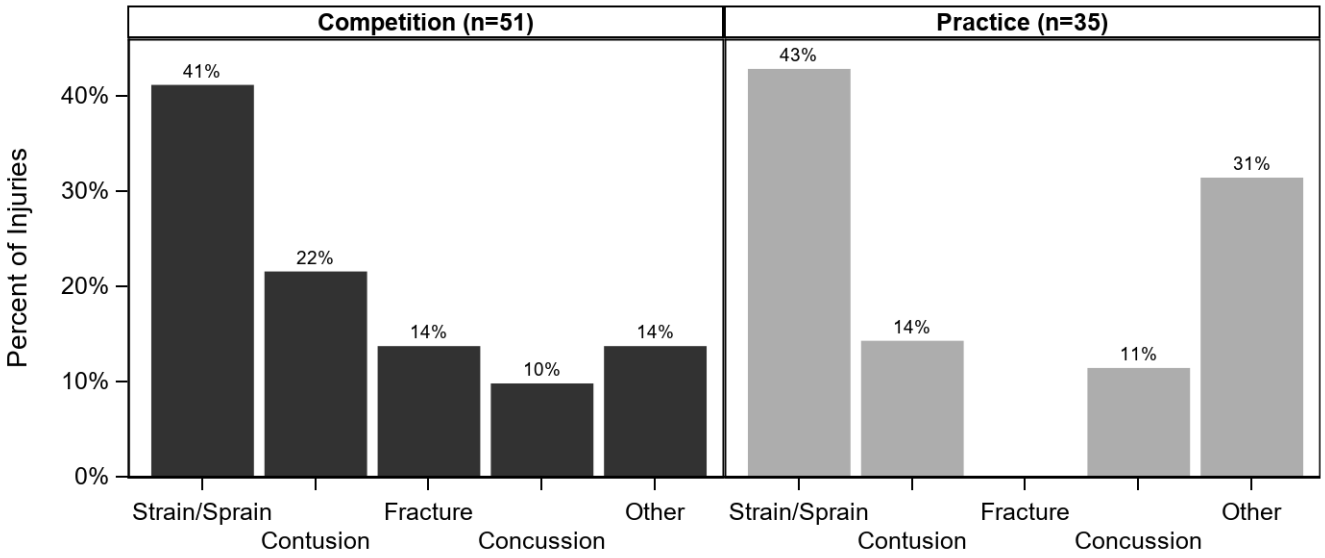


Table 13.3 Body Site of Girls' Field Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

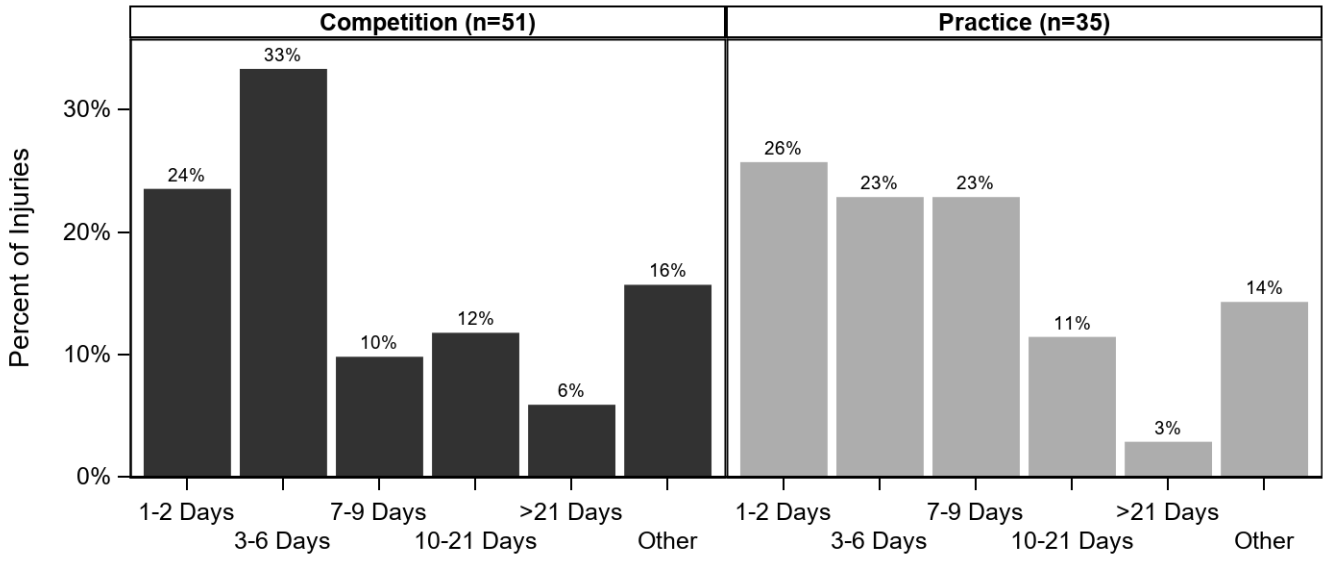
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Hip/Thigh/Upper Leg	12	23.5%	8	22.9%	20	23.3%
Head/Face	8	15.7%	8	22.9%	16	18.6%
Knee	5	9.8%	7	20.0%	12	14.0%
Hand/Wrist	7	13.7%	2	5.7%	9	10.5%
Ankle	5	9.8%	3	8.6%	8	9.3%
Foot	3	5.9%	2	5.7%	5	5.8%
Lower Leg	4	7.8%	1	2.9%	5	5.8%
Trunk	2	3.9%	2	5.7%	4	4.7%
Systemic	2	3.9%	1	2.9%	3	3.5%
Shoulder	1	2.0%	1	2.9%	2	2.3%
Arm/Elbow	1	2.0%	0	0.0%	1	1.2%
Neck	1	2.0%	0	0.0%	1	1.2%
Total	***51***	***100.0%***	***35***	***100.0%***	***86***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 13.4 Ten Most Common Girls' Field Hockey Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=51)		Practice (n=35)		Overall (n=86)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Hip/Thigh/Upper Leg Strain/Sprain	10	19.6%	7	20.0%	17	19.8%
Head/Face Concussion	5	9.8%	4	11.4%	9	10.5%
Ankle Strain/Sprain	4	7.8%	2	5.7%	6	7.0%
Knee Other	1	2.0%	5	14.3%	6	7.0%
Foot Contusion	2	3.9%	2	5.7%	4	4.7%
Hand/Wrist Fracture	4	7.8%	0	0.0%	4	4.7%
Knee Strain/Sprain	2	3.9%	2	5.7%	4	4.7%
Hand/Wrist Contusion	2	3.9%	1	2.9%	3	3.5%
Head/Face Contusion	1	2.0%	2	5.7%	3	3.5%
Head/Face Other	1	2.0%	2	5.7%	3	3.5%

Figure 13.2 Time Loss of Girls' Field Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 13.5 Girls' Field Hockey Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	1	2.0%	1	2.9%	2	2.4%
Did Not Require Surgery	49	98.0%	33	97.1%	82	97.6%
Total	***50***	***100.0%***	***34***	***100.0%***	***84***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 13.3 History of Girls' Field Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

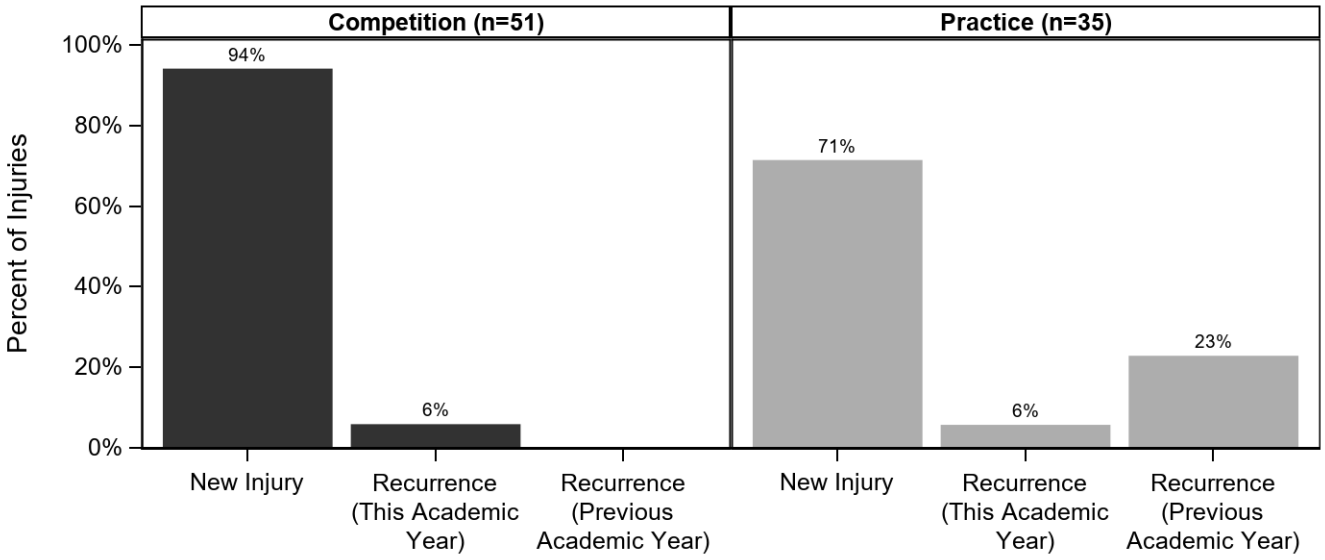


Table 13.6 Time during Season of Girls' Field Hockey Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	12	14.0%
Regular Season	67	77.9%
Post Season	7	8.1%
Total	***86***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 13.7 Competition-Related Variables for Girls' Field Hockey Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	3	5.9%
Unknown	15	29.4%
Second Quarter	14	27.5%
Third Quarter	11	21.6%
Fourth Quarter	8	15.7%
Total	***51***	***100.0%***

Field Location		
Goal Area/Circle	4	7.8%
Within 16-yard Arc	3	5.9%
Within 25-yard Line	6	11.8%
Between 25-yard Line and Center Line	14	27.5%
Sideline	2	3.9%
Unknown	22	43.1%
Total	***51***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 13.8 Practice-Related Variables for Girls' Field Hockey Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	1	3.0%
Second 1/2 Hour	4	12.1%
1-2 Hours into Practice	15	45.5%
>2 Hours into Practice	1	3.0%
Unknown	12	36.4%
Total	***33***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 13.4 Player Position of Girls' Field Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

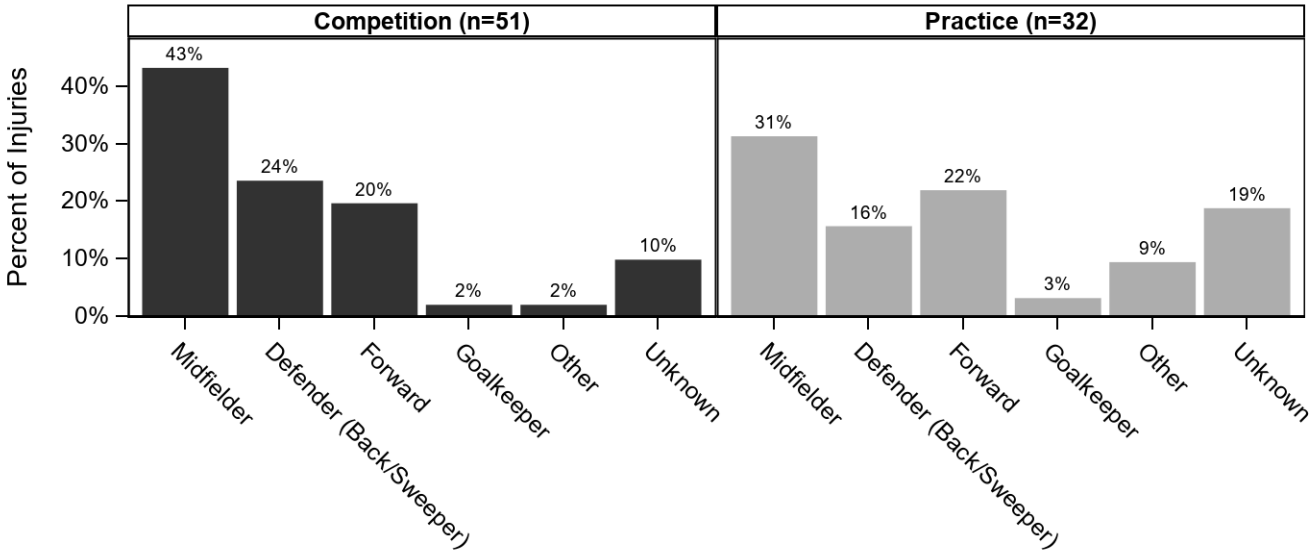


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Table 13.9 Activities Leading to Girls' Field Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
General Play	15	29.4%	17	53.1%	32	38.6%
Defending	14	27.5%	1	3.1%	15	18.1%
Unknown	9	17.6%	3	9.4%	12	14.5%
Chasing a Loose Ball	2	3.9%	2	6.3%	4	4.8%
Conditioning	0	0.0%	3	9.4%	3	3.6%
Other	1	2.0%	2	6.3%	3	3.6%
Ball Handling/Dribbling	3	5.9%	0	0.0%	3	3.6%
Passing	3	5.9%	0	0.0%	3	3.6%
Blocking Shot	1	2.0%	1	3.1%	2	2.4%
Goaltending	1	2.0%	1	3.1%	2	2.4%
Receiving Pass	1	2.0%	1	3.1%	2	2.4%
Shooting	0	0.0%	1	3.1%	1	1.2%
Penalty Corner	1	2.0%	0	0.0%	1	1.2%
Total	***51***	***100.0%***	***32***	***100.0%***	***83***	***100.0%***

* Totals and n’s are not always equal due to slight rounding or missing responses.

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Table 13.10 Activity Resulting in Girls' Field Hockey Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Ball Handling/Dribbling	3	8.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Blocking Shot	0	0.0%	0	0.0%	1	14.3%	0	0.0%	1	5.9%
Chasing a Loose Ball	1	2.8%	0	0.0%	0	0.0%	2	25.0%	1	5.9%
Conditioning	2	5.6%	0	0.0%	0	0.0%	0	0.0%	1	5.9%
Defending	2	5.6%	9	60.0%	1	14.3%	3	37.5%	0	0.0%
General Play	20	55.6%	2	13.3%	1	14.3%	2	25.0%	7	41.2%
Goaltending	1	2.8%	0	0.0%	0	0.0%	0	0.0%	1	5.9%
Other	1	2.8%	1	6.7%	0	0.0%	0	0.0%	1	5.9%
Passing	2	5.6%	0	0.0%	1	14.3%	0	0.0%	0	0.0%
Penalty Corner	0	0.0%	0	0.0%	1	14.3%	0	0.0%	0	0.0%
Receiving Pass	0	0.0%	2	13.3%	0	0.0%	0	0.0%	0	0.0%
Shooting	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	5.9%
Unknown	4	11.1%	1	6.7%	2	28.6%	1	12.5%	4	23.5%
Total	***36***	***100.0%***	***15***	***100.0%***	***7***	***100.0%***	***8***	***100.0%***	***17***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

XIV. Boys' Ice Hockey Injury Epidemiology

Table 14.1 Boys' Ice Hockey Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***51***	***36,210***	***1.41***
Competition	46	12,408	3.71
Practice	5	23,802	0.21

* All analyses in this chapter present un-weighted data.

Table 14.2 Demographic Characteristics of Injured Boys' Ice Hockey Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	7	14.3%
Sophomore	22	44.9%
Junior	9	18.4%
Senior	11	22.4%
Total	***49***	***100.0%***

Age (years)	
Minimum	14
Maximum	18
Mean (SD)	15.9 (1.2)
n	32

BMI	
Minimum	18.0
Maximum	28.8
Mean (SD)	23.0 (2.0)
n	32

* Throughout this report, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 14.1 Diagnosis of Boys' Ice Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

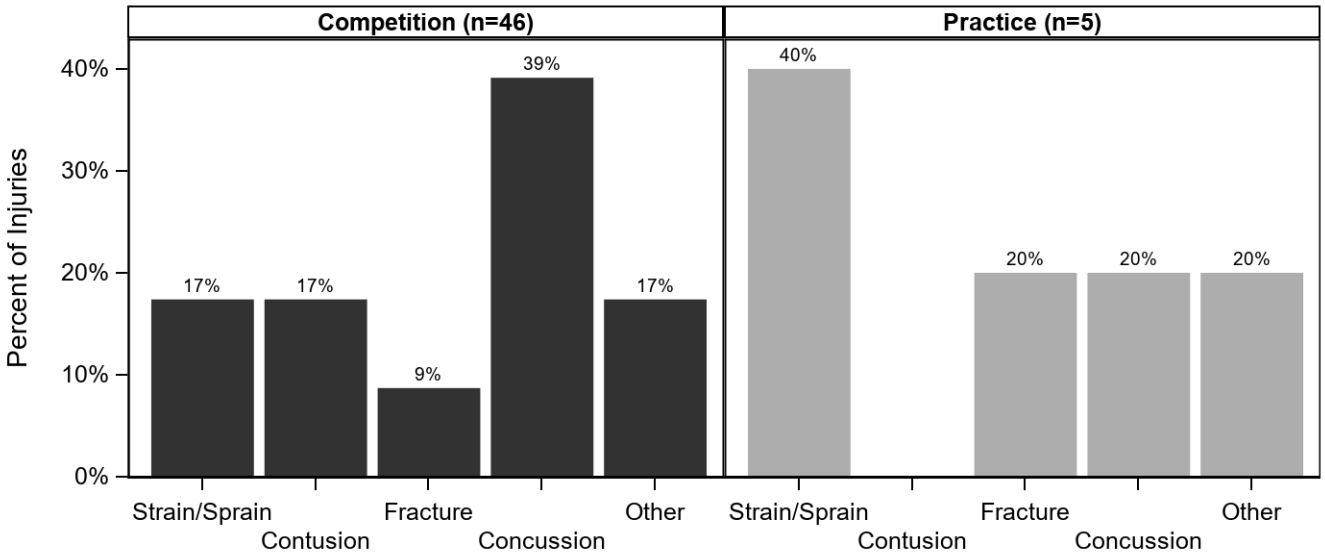


Table 14.3 Body Site of Boys' Ice Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

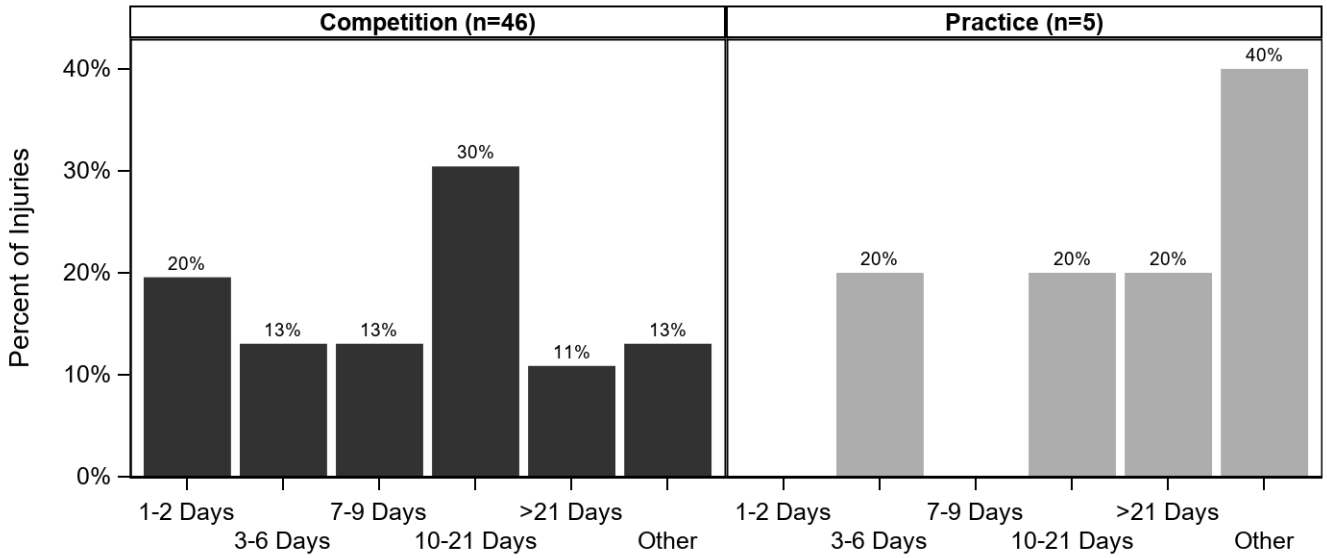
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face	18	39.1%	1	20.0%	19	37.3%
Shoulder	10	21.7%	0	0.0%	10	19.6%
Knee	5	10.9%	2	40.0%	7	13.7%
Other	3	6.5%	1	20.0%	4	7.8%
Hip/Thigh/Upper Leg	2	4.3%	1	20.0%	3	5.9%
Trunk	3	6.5%	0	0.0%	3	5.9%
Hand/Wrist	2	4.3%	0	0.0%	2	3.9%
Lower Leg	2	4.3%	0	0.0%	2	3.9%
Arm/Elbow	1	2.2%	0	0.0%	1	2.0%
Total	***46***	***100.0%***	***5***	***100.0%***	***51***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 14.4 Ten Most Common Boys' Ice Hockey Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=46)		Practice (n=5)		Overall (n=51)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face Concussion	18	39.1%	1	20.0%	19	37.3%
Shoulder Strain/Sprain	5	10.9%	0	0.0%	5	9.8%
Other Fracture	3	6.5%	1	20.0%	4	7.8%
Knee Contusion	3	6.5%	0	0.0%	3	5.9%
Shoulder Other	3	6.5%	0	0.0%	3	5.9%
Hip/Thigh/Upper Leg Strain/Sprain	1	2.2%	1	20.0%	2	3.9%
Knee Other	1	2.2%	1	20.0%	2	3.9%
Knee Strain/Sprain	1	2.2%	1	20.0%	2	3.9%
Trunk Other	2	4.3%	0	0.0%	2	3.9%
Arm/Elbow Other	1	2.2%	0	0.0%	1	2.0%

Figure 14.2 Time Loss of Boys' Ice Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 14.5 Boys' Ice Hockey Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	1	2.2%	1	20.0%	2	4.0%
Did Not Require Surgery	44	97.8%	4	80.0%	48	96.0%
Total	***45***	***100.0%***	***5***	***100.0%***	***50***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 14.3 History of Boys' Ice Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

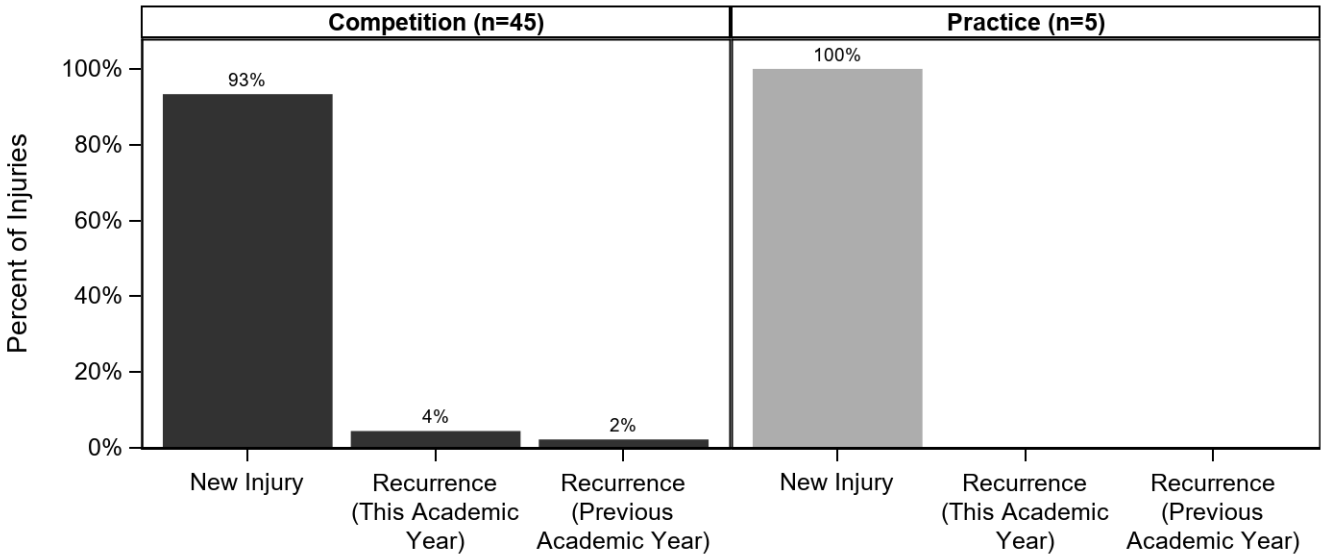


Table 14.6 Time during Season of Boys' Ice Hockey Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	5	9.8%
Regular Season	41	80.4%
Post Season	5	9.8%
Total	***51***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 14.7 Competition-Related Variables for Boys' Ice Hockey Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
First Period	8	17.8%
Second Period	14	31.1%
Third Period	17	37.8%
Unknown	6	13.3%
Total	***45***	***100.0%***

Rink Location		
Corner	4	8.9%
Behind Goal	4	8.9%
Goal Area	1	2.2%
Between Goal Line and Blue Line	19	42.2%
Neutral Zone	9	20.0%
Bench	1	2.2%
Other	1	2.2%
Unknown	6	13.3%
Total	***45***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 14.8 Practice-Related Variables for Boys' Ice Hockey Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
1-2 Hours into Practice	3	60.0%
Unknown	2	40.0%
Total	***5***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 14.4 Player Position of Boys' Ice Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

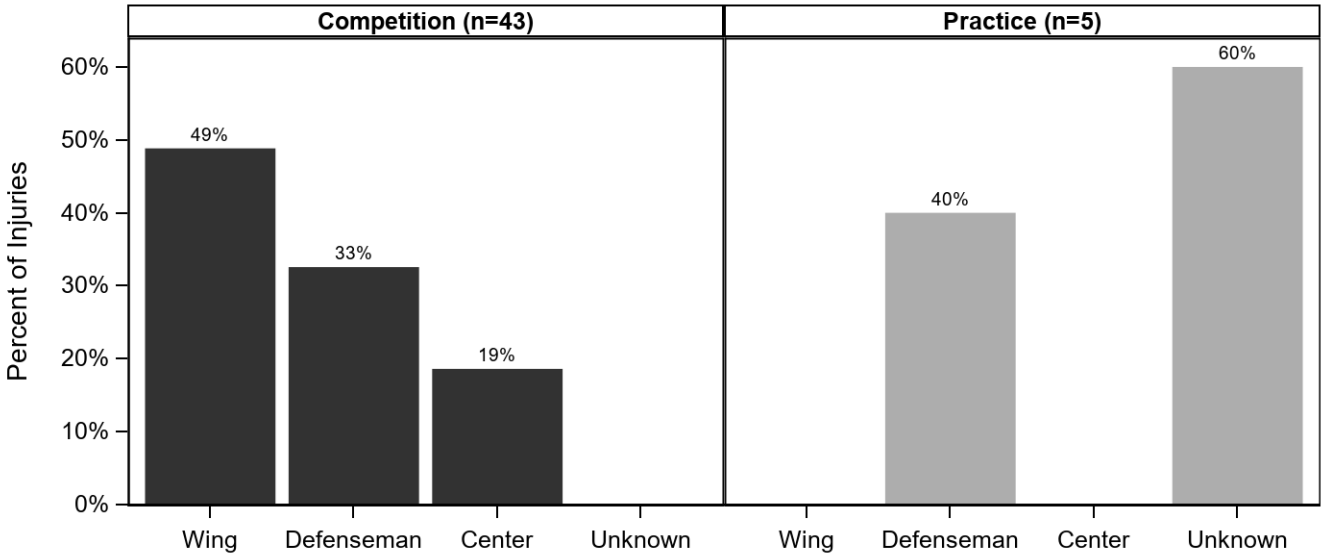


Table 14.9 Activities Leading to Boys' Ice Hockey Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
Being Checked	24	53.3%	1	20.0%	25	50.0%
Skating	7	15.6%	2	40.0%	9	18.0%
Checking	6	13.3%	1	20.0%	7	14.0%
Unknown	3	6.7%	0	0.0%	3	6.0%
Chasing Loose Puck	2	4.4%	0	0.0%	2	4.0%
Receiving Pass	0	0.0%	1	20.0%	1	2.0%
Other	1	2.2%	0	0.0%	1	2.0%
Passing	1	2.2%	0	0.0%	1	2.0%
Line Change	1	2.2%	0	0.0%	1	2.0%
Total	***45***	***100.0%***	***5***	***100.0%***	***50***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

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Table 14.10 Activity Resulting in Boys' Ice Hockey Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Being Checked	4	40.0%	3	37.5%	1	20.0%	13	68.4%	4	50.0%
Chasing Loose Puck	1	10.0%	0	0.0%	0	0.0%	0	0.0%	1	12.5%
Checking	2	20.0%	2	25.0%	1	20.0%	1	5.3%	1	12.5%
Line Change	0	0.0%	0	0.0%	0	0.0%	1	5.3%	0	0.0%
Other	0	0.0%	1	12.5%	0	0.0%	0	0.0%	0	0.0%
Passing	0	0.0%	0	0.0%	1	20.0%	0	0.0%	0	0.0%
Receiving Pass	1	10.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Skating	2	20.0%	1	12.5%	1	20.0%	4	21.1%	1	12.5%
Unknown	0	0.0%	1	12.5%	1	20.0%	0	0.0%	1	12.5%
Total	***10***	***100.0%***	***8***	***100.0%***	***5***	***100.0%***	***19***	***100.0%***	***8***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

XV. Boys' Lacrosse Injury Epidemiology

Table 15.1 Boys' Lacrosse Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***220***	***87,482***	***2.51***
Competition	113	26,055	4.34
Practice	107	61,427	1.74

* All analyses in this chapter present un-weighted data.

Table 15.2 Demographic Characteristics of Injured Boys' Lacrosse Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	30	14.6%
Sophomore	52	25.4%
Junior	59	28.8%
Senior	64	31.2%
Total	***205***	***100.0%***

Age (years)	
Minimum	13
Maximum	19
Mean (SD)	16.4 (1.1)
n	187

BMI	
Minimum	17.0
Maximum	35.9
Mean (SD)	23.4 (3.2)
n	149

* Throughout this report, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 15.1 Diagnosis of Boys' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

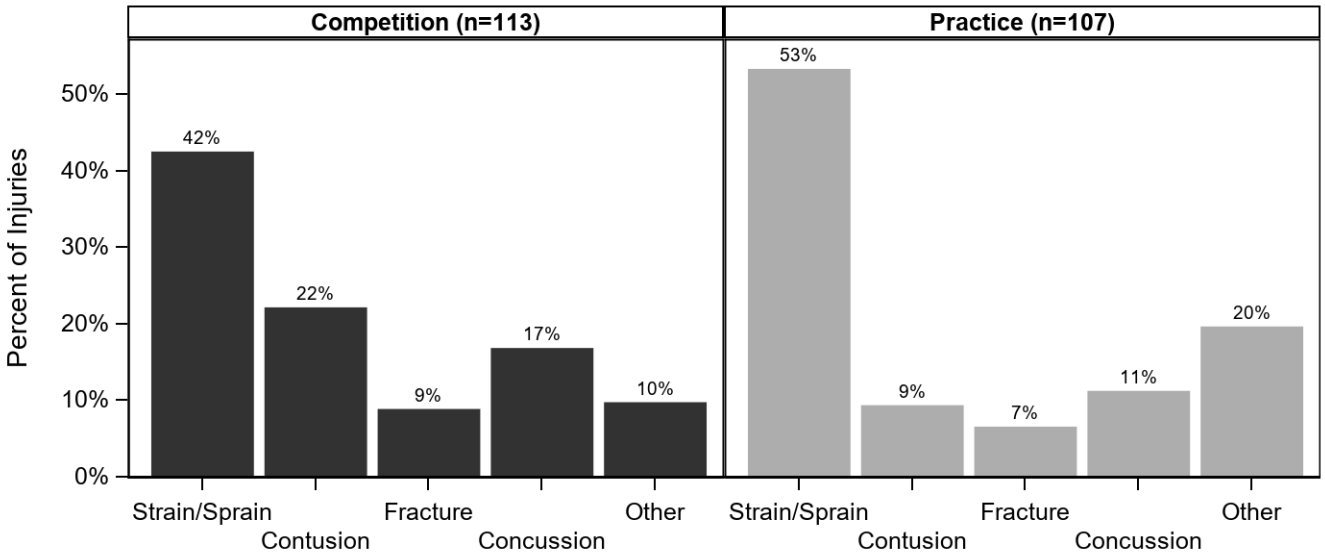


Table 15.3 Body Site of Boys' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

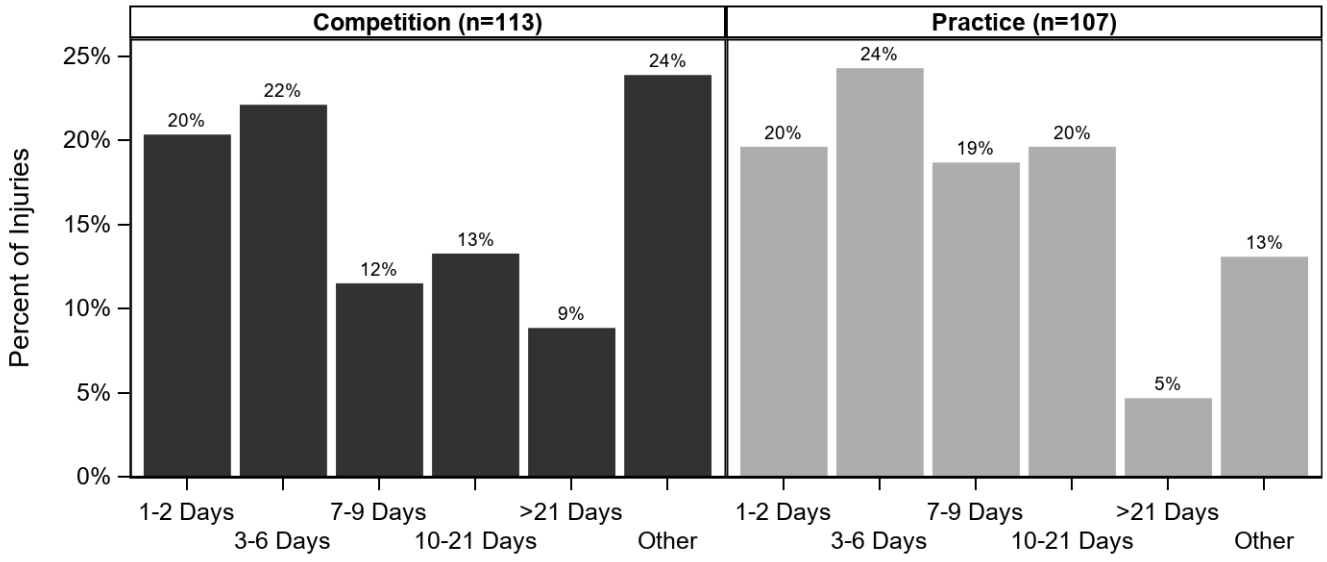
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Ankle	15	13.3%	19	17.8%	34	15.5%
Hip/Thigh/Upper Leg	14	12.4%	20	18.7%	34	15.5%
Hand/Wrist	18	15.9%	14	13.1%	32	14.5%
Head/Face	19	16.8%	12	11.2%	31	14.1%
Knee	10	8.8%	15	14.0%	25	11.4%
Trunk	6	5.3%	8	7.5%	14	6.4%
Lower Leg	7	6.2%	6	5.6%	13	5.9%
Other	4	3.5%	5	4.7%	9	4.1%
Shoulder	8	7.1%	1	0.9%	9	4.1%
Arm/Elbow	7	6.2%	1	0.9%	8	3.6%
Foot	3	2.7%	5	4.7%	8	3.6%
Neck	2	1.8%	0	0.0%	2	0.9%
Systemic	0	0.0%	1	0.9%	1	0.5%
Total	***113***	***100.0%***	***107***	***100.0%***	***220***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 15.4 Ten Most Common Boys' Lacrosse Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=113)		Practice (n=107)		Overall (n=220)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face Concussion	19	16.8%	12	11.2%	31	14.1%
Ankle Strain/Sprain	15	13.3%	15	14.0%	30	13.6%
Hip/Thigh/Upper Leg Strain/Sprain	8	7.1%	17	15.9%	25	11.4%
Knee Strain/Sprain	4	3.5%	11	10.3%	15	6.8%
Hand/Wrist Fracture	8	7.1%	4	3.7%	12	5.5%
Hand/Wrist Strain/Sprain	5	4.4%	6	5.6%	11	5.0%
Hand/Wrist Contusion	5	4.4%	2	1.9%	7	3.2%
Hip/Thigh/Upper Leg Contusion	6	5.3%	1	0.9%	7	3.2%
Shoulder Strain/Sprain	6	5.3%	1	0.9%	7	3.2%
Arm/Elbow Contusion	5	4.4%	1	0.9%	6	2.7%

Figure 15.2 Time Loss of Boys' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 15.5 Boys' Lacrosse Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	4	3.7%	7	6.6%	11	5.1%
Did Not Require Surgery	105	96.3%	99	93.4%	204	94.9%
Total	***109***	***100.0%***	***106***	***100.0%***	***215***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 15.3 History of Boys' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

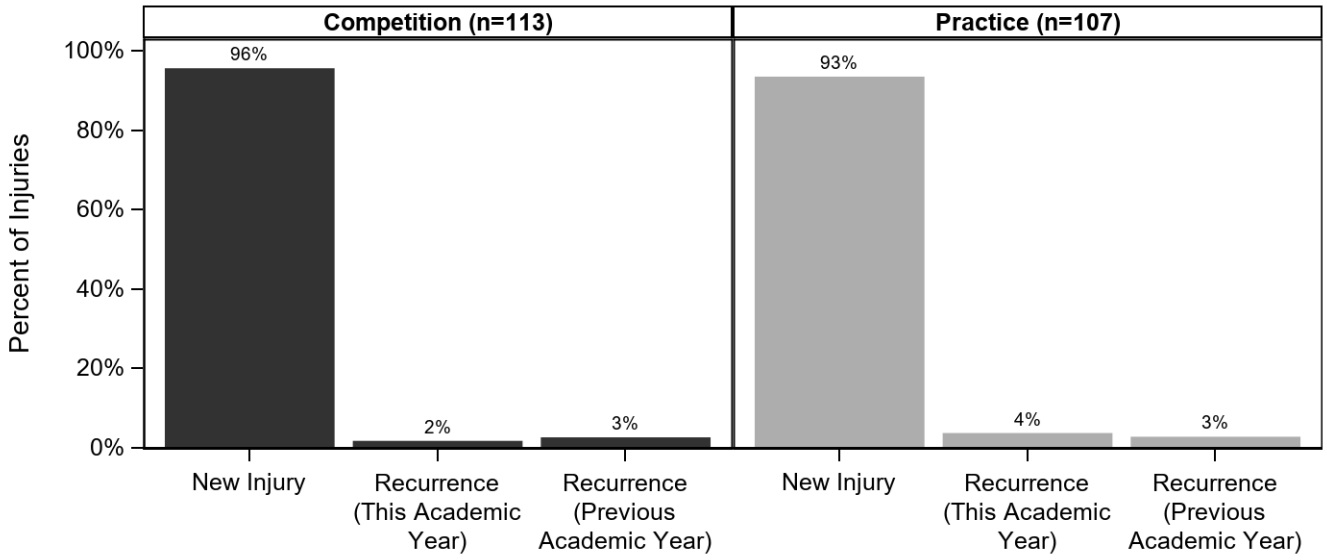


Table 15.6 Time during Season of Boys' Lacrosse Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	62	28.3%
Regular Season	146	66.7%
Post Season	11	5.0%
Total	***219***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 15.7 Competition-Related Variables for Boys' Lacrosse Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	5	4.9%
First Quarter	3	2.9%
Second Quarter	26	25.2%
Third Quarter	29	28.2%
Fourth Quarter	21	20.4%
Unknown	19	18.4%
Total	***103***	***100.0%***

Field Location		
Midfield	23	22.3%
Wing Area	7	6.8%
Defensive Area	21	20.4%
Goal Area	26	25.2%
Sideline	1	1.0%
Crease Area	2	1.9%
Unknown	23	22.3%
Total	***103***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 15.8 Practice-Related Variables for Boys' Lacrosse Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	3	2.9%
Second 1/2 Hour	11	10.8%
1-2 Hours into Practice	59	57.8%
>2 Hours into Practice	2	2.0%
Unknown	27	26.5%
Total	***102***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 15.4 Player Position of Boys' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

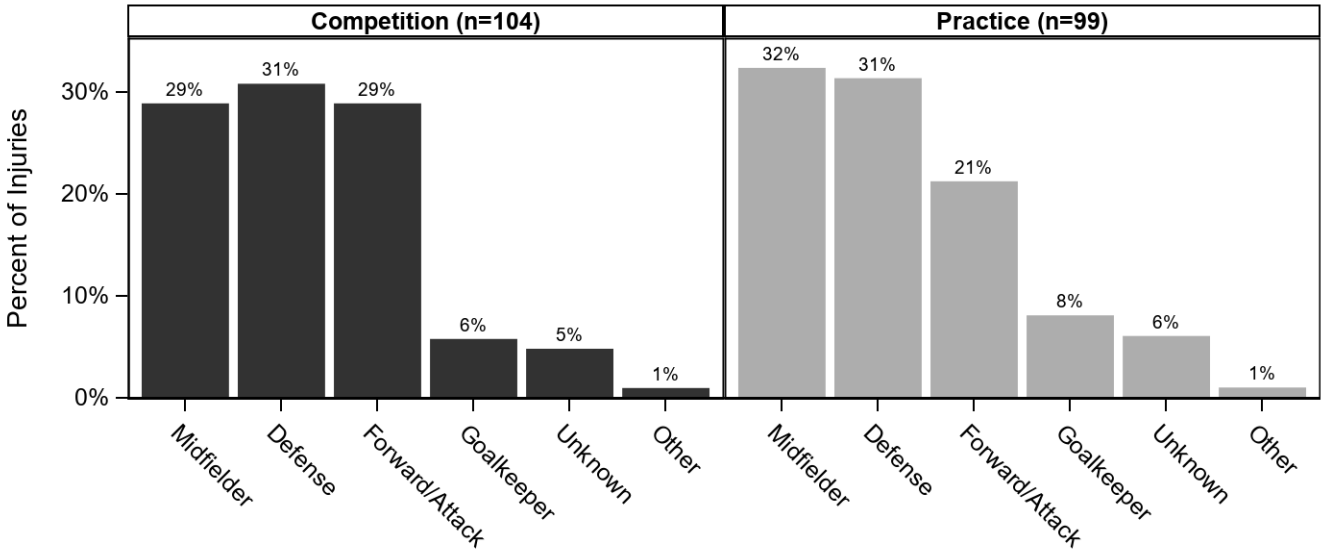


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Table 15.9 Activities Leading to Boys' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
General Play	24	22.6%	37	36.6%	61	29.5%
Defending	13	12.3%	11	10.9%	24	11.6%
Being Cross/Stick Checked	15	14.2%	6	5.9%	21	10.1%
Unknown	9	8.5%	7	6.9%	16	7.7%
Chasing Loose Ball	7	6.6%	7	6.9%	14	6.8%
Shooting	7	6.6%	6	5.9%	13	6.3%
Being Body Checked	6	5.7%	7	6.9%	13	6.3%
Body Checking	7	6.6%	3	3.0%	10	4.8%
Goaltending	5	4.7%	4	4.0%	9	4.3%
Ball Handling/Cradling	5	4.7%	2	2.0%	7	3.4%
Passing	4	3.8%	2	2.0%	6	2.9%
Conditioning	0	0.0%	4	4.0%	4	1.9%
Blocking Shot	0	0.0%	3	3.0%	3	1.4%
Receiving Pass	2	1.9%	1	1.0%	3	1.4%
Face-Off	1	0.9%	0	0.0%	1	0.5%
Draw	0	0.0%	1	1.0%	1	0.5%
Cross/Stick Checking	1	0.9%	0	0.0%	1	0.5%
Total	***106***	***100.0%***	***101***	***100.0%***	***207***	***100.0%***

* Totals and n’s are not always equal due to slight rounding or missing responses.

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Table 15.10 Activity Resulting in Boys' Lacrosse Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Ball Handling/Cradling	2	2.0%	1	2.9%	0	0.0%	2	7.1%	2	6.7%
Being Body Checked	7	7.1%	1	2.9%	1	5.9%	4	14.3%	0	0.0%
Being Cross/Stick Checked	3	3.1%	8	23.5%	6	35.3%	2	7.1%	2	6.7%
Blocking Shot	0	0.0%	1	2.9%	1	5.9%	0	0.0%	1	3.3%
Body Checking	4	4.1%	2	5.9%	1	5.9%	1	3.6%	2	6.7%
Chasing Loose Ball	8	8.2%	1	2.9%	0	0.0%	4	14.3%	1	3.3%
Conditioning	4	4.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Cross/Stick Checking	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	3.3%
Defending	13	13.3%	3	8.8%	3	17.6%	4	14.3%	1	3.3%
Draw	1	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Face-Off	1	1.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
General Play	34	34.7%	6	17.6%	0	0.0%	4	14.3%	17	56.7%
Goaltending	1	1.0%	5	14.7%	2	11.8%	1	3.6%	0	0.0%
Passing	3	3.1%	3	8.8%	0	0.0%	0	0.0%	0	0.0%
Receiving Pass	2	2.0%	0	0.0%	0	0.0%	1	3.6%	0	0.0%
Shooting	6	6.1%	2	5.9%	2	11.8%	2	7.1%	1	3.3%
Unknown	9	9.2%	1	2.9%	1	5.9%	3	10.7%	2	6.7%
Total	***98***	***100.0%***	***34***	***100.0%***	***17***	***100.0%***	***28***	***100.0%***	***30***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

XVI. Girls' Lacrosse Injury Epidemiology

Table 16.1 Girls' Lacrosse Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***123***	***65,425***	***1.88***
Competition	60	20,902	2.87
Practice	63	44,523	1.41

* All analyses in this chapter present un-weighted data.

Table 16.2 Demographic Characteristics of Injured Girls' Lacrosse Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	29	26.9%
Sophomore	31	28.7%
Junior	29	26.9%
Senior	19	17.6%
Total	***108***	***100.0%***

Age (years)	
Minimum	13
Maximum	18
Mean (SD)	15.8 (1.4)
n	106

BMI	
Minimum	15.4
Maximum	30.9
Mean (SD)	21.8 (3.1)
n	84

* Throughout this report, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 16.1 Diagnosis of Girls' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

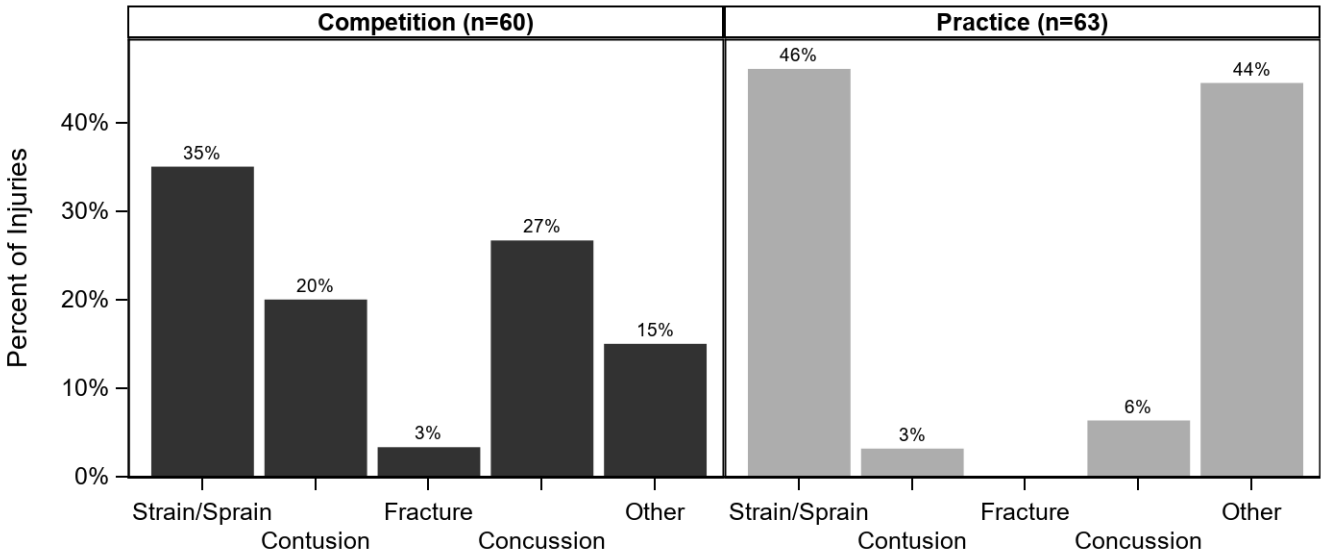


Table 16.3 Body Site of Girls' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

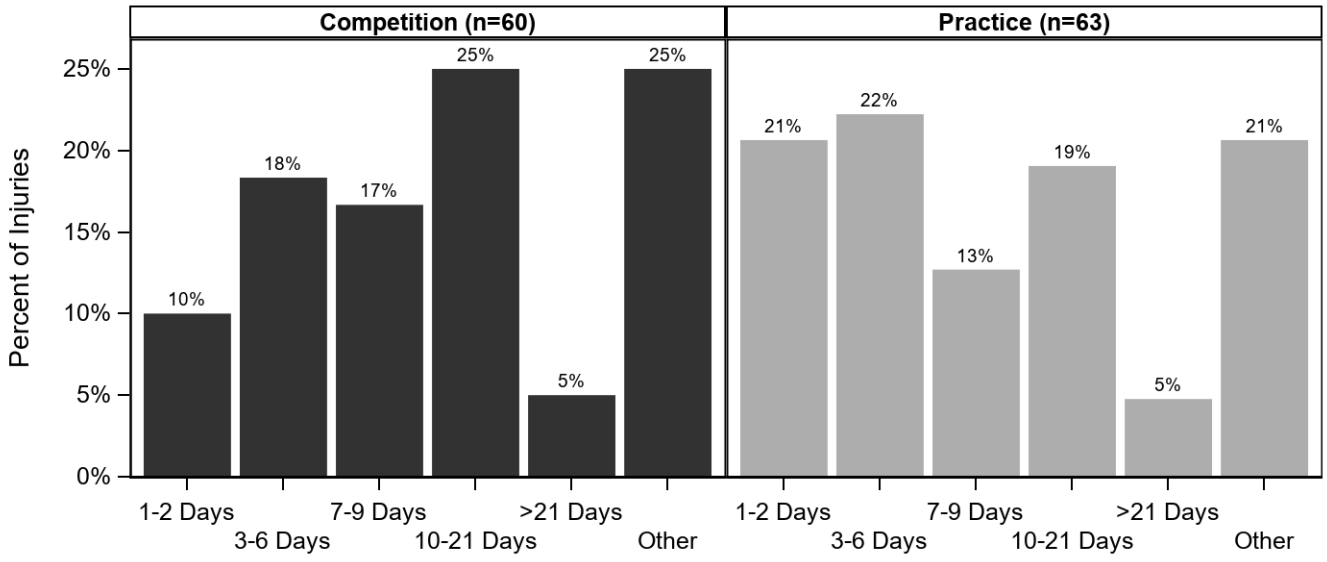
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Knee	14	23.3%	13	20.6%	27	22.0%
Ankle	13	21.7%	13	20.6%	26	21.1%
Head/Face	17	28.3%	5	7.9%	22	17.9%
Hip/Thigh/Upper Leg	3	5.0%	13	20.6%	16	13.0%
Lower Leg	2	3.3%	13	20.6%	15	12.2%
Trunk	3	5.0%	2	3.2%	5	4.1%
Foot	2	3.3%	2	3.2%	4	3.3%
Arm/Elbow	2	3.3%	1	1.6%	3	2.4%
Hand/Wrist	3	5.0%	0	0.0%	3	2.4%
Neck	1	1.7%	0	0.0%	1	0.8%
Systemic	0	0.0%	1	1.6%	1	0.8%
Total	***60***	***100.0%***	***63***	***100.0%***	***123***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 16.4 Ten Most Common Girls' Lacrosse Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=60)		Practice (n=63)		Overall (n=123)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Ankle Strain/Sprain	12	20.0%	8	12.7%	20	16.3%
Head/Face Concussion	16	26.7%	4	6.3%	20	16.3%
Hip/Thigh/Upper Leg Strain/Sprain	3	5.0%	10	15.9%	13	10.6%
Knee Other	6	10.0%	7	11.1%	13	10.6%
Lower Leg Other	1	1.7%	9	14.3%	10	8.1%
Knee Strain/Sprain	4	6.7%	5	7.9%	9	7.3%
Ankle Other	0	0.0%	5	7.9%	5	4.1%
Knee Contusion	4	6.7%	1	1.6%	5	4.1%
Lower Leg Strain/Sprain	1	1.7%	4	6.3%	5	4.1%
Hip/Thigh/Upper Leg Other	0	0.0%	3	4.8%	3	2.4%

Figure 16.2 Time Loss of Girls' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 16.5 Girls' Lacrosse Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	7	11.9%	5	7.9%	12	9.8%
Did Not Require Surgery	52	88.1%	58	92.1%	110	90.2%
Total	***59***	***100.0%***	***63***	***100.0%***	***122***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 16.3 History of Girls' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

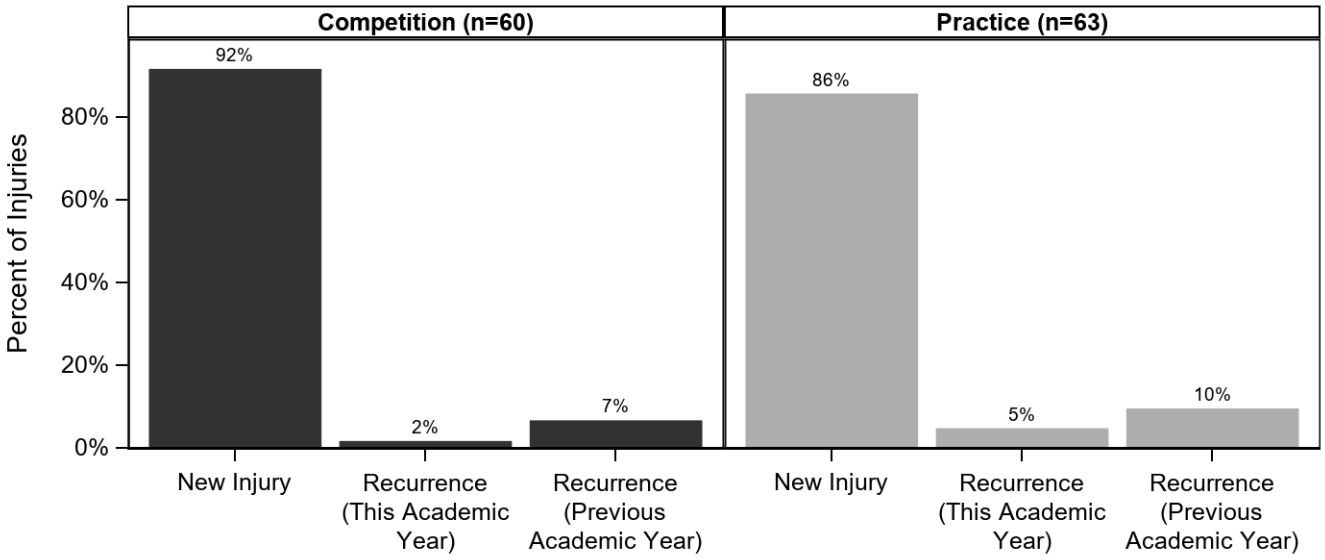


Table 16.6 Time during Season of Girls' Lacrosse Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	27	22.0%
Regular Season	91	74.0%
Post Season	4	3.3%
Unknown/Other	1	0.8%
Total	***123***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 16.7 Competition-Related Variables for Girls' Lacrosse Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Competition	n	%
Pre-competition/Warm-Ups	1	1.8%
First Quarter	3	5.3%
Second Quarter	12	21.1%
Third Quarter	7	12.3%
Fourth Quarter	12	21.1%
Overtime	1	1.8%
Unknown	21	36.8%
Total	***57***	***100.0%***

Field Location		
Center Circle	2	3.5%
Midfield (Between Restraining Lines)	10	17.5%
Critical Scoring Area (including the Fan and Arc)	11	19.3%
Goal Circle	8	14.0%
Unknown	26	45.6%
Total	***57***	***100.0%***

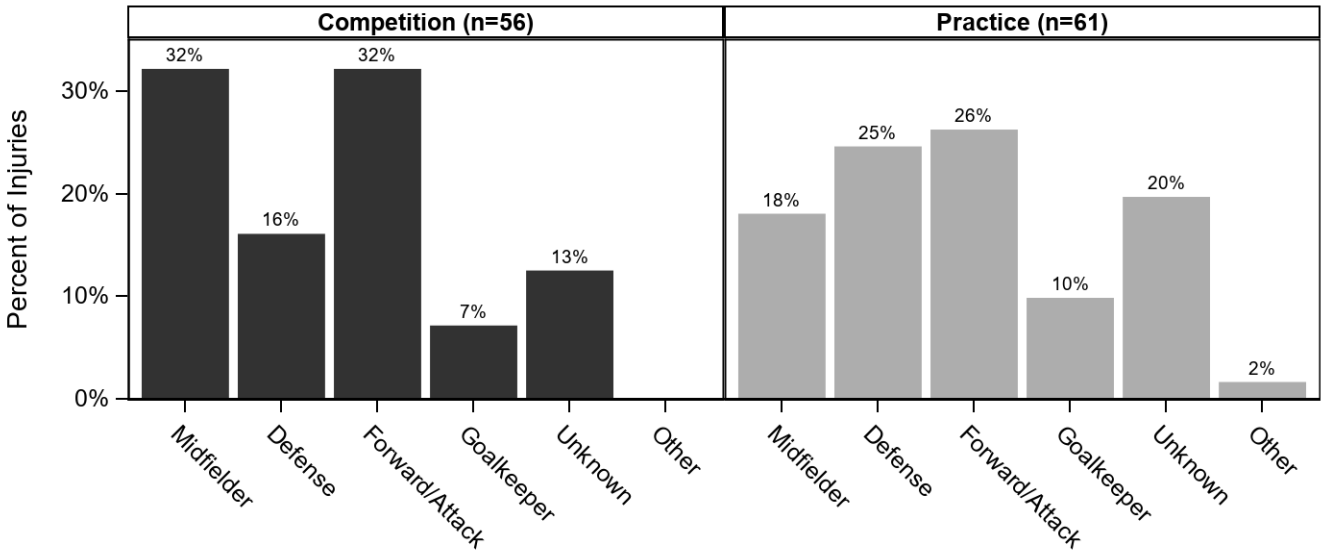
* Totals and n's are not always equal due to slight rounding or missing responses.

Table 16.8 Practice-Related Variables for Girls' Lacrosse Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
Second 1/2 Hour	4	6.6%
1-2 Hours into Practice	28	45.9%
>2 Hours into Practice	1	1.6%
Unknown	28	45.9%
Total	***61***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 16.4 Player Position of Girls' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year



REPORTING INFORMATION ONLINE

Table 16.9 Activities Leading to Girls' Lacrosse Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
General Play	18	31.6%	30	49.2%	48	40.7%
Unknown	6	10.5%	7	11.5%	13	11.0%
Defending	6	10.5%	4	6.6%	10	8.5%
Ball Handling/Cradling	4	7.0%	4	6.6%	8	6.8%
Shooting	7	12.3%	1	1.6%	8	6.8%
Goaltending	3	5.3%	3	4.9%	6	5.1%
Chasing Loose Ball	2	3.5%	3	4.9%	5	4.2%
Conditioning	1	1.8%	3	4.9%	4	3.4%
Being Body Checked	2	3.5%	2	3.3%	4	3.4%
Blocking Shot	1	1.8%	2	3.3%	3	2.5%
Being Cross/Stick Checked	2	3.5%	0	0.0%	2	1.7%
Passing	1	1.8%	1	1.6%	2	1.7%
Other	0	0.0%	1	1.6%	1	0.8%
Body Checking	1	1.8%	0	0.0%	1	0.8%
Face-Off	1	1.8%	0	0.0%	1	0.8%
Draw	1	1.8%	0	0.0%	1	0.8%
Receiving Pass	1	1.8%	0	0.0%	1	0.8%
Total	***57***	***100.0%***	***61***	***100.0%***	***118***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

REPORTING INFORMATION ONLINE

Table 16.10 Activity Resulting in Girls' Lacrosse Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Ball Handling/Cradling	4	8.2%	1	7.7%	0	0.0%	0	0.0%	3	8.6%
Being Body Checked	2	4.1%	0	0.0%	0	0.0%	1	5.0%	1	2.9%
Being Cross/Stick Checked	0	0.0%	0	0.0%	0	0.0%	2	10.0%	0	0.0%
Blocking Shot	1	2.0%	0	0.0%	0	0.0%	2	10.0%	0	0.0%
Body Checking	0	0.0%	1	7.7%	0	0.0%	0	0.0%	0	0.0%
Chasing Loose Ball	2	4.1%	0	0.0%	0	0.0%	1	5.0%	2	5.7%
Conditioning	3	6.1%	0	0.0%	0	0.0%	0	0.0%	1	2.9%
Defending	4	8.2%	4	30.8%	0	0.0%	1	5.0%	1	2.9%
Draw	1	2.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Face-Off	0	0.0%	0	0.0%	0	0.0%	1	5.0%	0	0.0%
General Play	19	38.8%	3	23.1%	1	100.0%	2	10.0%	23	65.7%
Goaltending	0	0.0%	2	15.4%	0	0.0%	4	20.0%	0	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	2.9%
Passing	1	2.0%	0	0.0%	0	0.0%	1	5.0%	0	0.0%
Receiving Pass	0	0.0%	0	0.0%	0	0.0%	1	5.0%	0	0.0%
Shooting	5	10.2%	1	7.7%	0	0.0%	1	5.0%	1	2.9%
Unknown	7	14.3%	1	7.7%	0	0.0%	3	15.0%	2	5.7%
Total	***49***	***100.0%***	***13***	***100.0%***	***1***	***100.0%***	***20***	***100.0%***	***35***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

XVII. Boys' Track and Field Injury Epidemiology

Table 17.1 Boys' Track and Field Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***124***	***128,148***	***0.97***
Competition	37	23,024	1.61
Practice	87	105,124	0.83

* All analyses in this chapter present un-weighted data.

Table 17.2 Demographic Characteristics of Injured Boys' Track and Field Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	23	18.9%
Sophomore	27	22.1%
Junior	48	39.3%
Senior	24	19.7%
Total	***122***	***100.0%***

Age (years)	
Minimum	14
Maximum	18
Mean (SD)	16.2 (1.2)
n	100

BMI	
Minimum	16.5
Maximum	47.0
Mean (SD)	23.2 (4.4)
n	77

* Throughout this report, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 17.1 Diagnosis of Boys' Track and Field Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

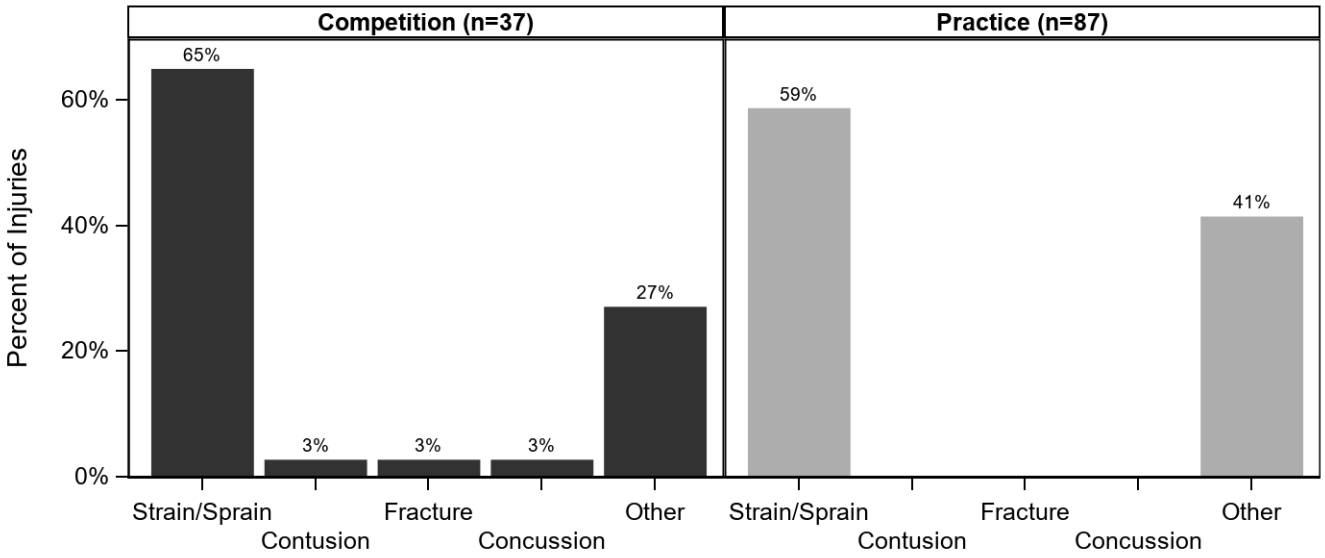


Table 17.3 Body Site of Boys' Track and Field Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

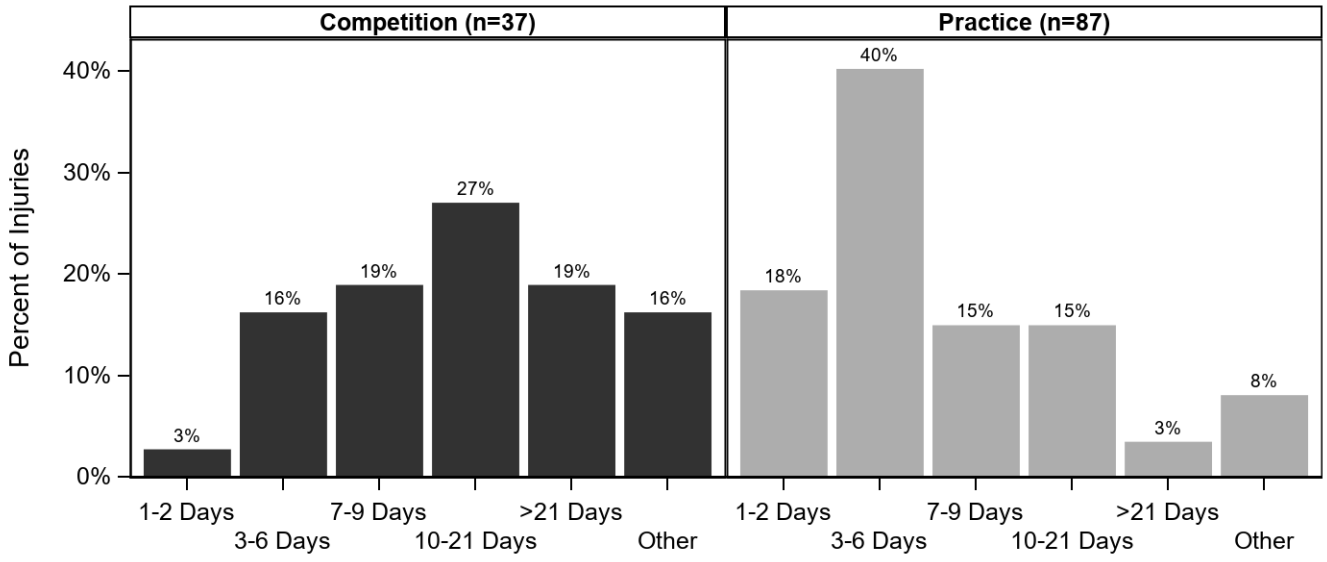
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Hip/Thigh/Upper Leg	23	62.2%	37	42.5%	60	48.4%
Lower Leg	5	13.5%	27	31.0%	32	25.8%
Knee	2	5.4%	7	8.0%	9	7.3%
Ankle	2	5.4%	4	4.6%	6	4.8%
Trunk	2	5.4%	4	4.6%	6	4.8%
Foot	0	0.0%	3	3.4%	3	2.4%
Shoulder	0	0.0%	3	3.4%	3	2.4%
Hand/Wrist	1	2.7%	1	1.1%	2	1.6%
Head/Face	1	2.7%	0	0.0%	1	0.8%
Other	1	2.7%	0	0.0%	1	0.8%
Systemic	0	0.0%	1	1.1%	1	0.8%
Total	***37***	***100.0%***	***87***	***100.0%***	***124***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 17.4 Ten Most Common Boys' Track and Field Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=37)		Practice (n=87)		Overall (n=124)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Hip/Thigh/Upper Leg Strain/Sprain	17	45.9%	33	37.9%	50	40.3%
Lower Leg Other	2	5.4%	21	24.1%	23	18.5%
Hip/Thigh/Upper Leg Other	6	16.2%	4	4.6%	10	8.1%
Lower Leg Strain/Sprain	2	5.4%	6	6.9%	8	6.5%
Ankle Strain/Sprain	2	5.4%	4	4.6%	6	4.8%
Knee Other	1	2.7%	5	5.7%	6	4.8%
Trunk Strain/Sprain	2	5.4%	2	2.3%	4	3.2%
Knee Strain/Sprain	1	2.7%	2	2.3%	3	2.4%
Foot Strain/Sprain	0	0.0%	2	2.3%	2	1.6%
Hand/Wrist Other	1	2.7%	1	1.1%	2	1.6%

Figure 17.2 Time Loss of Boys' Track and Field Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 17.5 Boys' Track and Field Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	0	0.0%	1	1.1%	1	0.8%
Did Not Require Surgery	36	100.0%	86	98.9%	122	99.2%
Total	***36***	***100.0%***	***87***	***100.0%***	***123***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 17.3 History of Boys' Track and Field Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

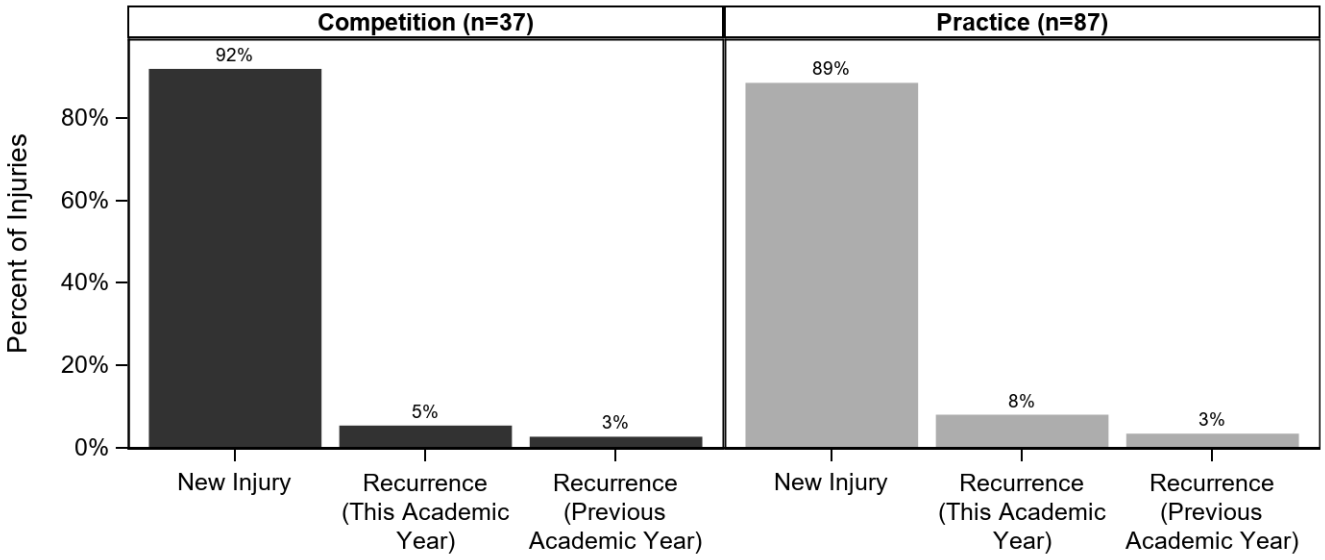


Table 17.6 Time during Season of Boys' Track and Field Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	27	21.8%
Regular Season	92	74.2%
Post Season	5	4.0%
Total	***124***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 17.7 Practice-Related Variables for Boys' Track and Field Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	10	12.2%
Second 1/2 Hour	9	11.0%
1-2 Hours into Practice	41	50.0%
Unknown	22	26.8%
Total	***82***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 17.8 Activities Leading to Boys' Track and Field Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
Running	27	75.0%	55	66.3%	82	68.9%
Jumping/Landing	7	19.4%	8	9.6%	15	12.6%
Conditioning	0	0.0%	8	9.6%	8	6.7%
Throwing	0	0.0%	6	7.2%	6	5.0%
Running Hurdles	1	2.8%	1	1.2%	2	1.7%
Other	1	2.8%	1	1.2%	2	1.7%
Warming Up	0	0.0%	2	2.4%	2	1.7%
Leaving Block	0	0.0%	1	1.2%	1	0.8%
Unknown	0	0.0%	1	1.2%	1	0.8%
Total	***36***	***100.0%***	***83***	***100.0%***	***119***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 17.9 Activity Resulting in Boys' Track and Field Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Conditioning	3	4.2%	0	0.0%	0	0.0%	0	0.0%	5	11.4%
Jumping/Landing	12	16.7%	0	0.0%	0	0.0%	0	0.0%	3	6.8%
Leaving Block	1	1.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	0	0.0%	0	0.0%	0	0.0%	1	100.0%	1	2.3%
Running	50	69.4%	0	0.0%	1	100.0%	0	0.0%	31	70.5%
Running Hurdles	1	1.4%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
Throwing	3	4.2%	0	0.0%	0	0.0%	0	0.0%	3	6.8%
Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	2.3%
Warming Up	2	2.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	***72***	***100.0%***	***1***	***100.0%***	***1***	***100.0%***	***1***	***100.0%***	***44***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

XVIII. Girls' Track and Field Injury Epidemiology

Table 18.1 Girls' Track and Field Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***100***	***111,916***	***0.89***
Competition	26	20,451	1.27
Practice	74	91,465	0.81

* All analyses in this chapter present un-weighted data.

Table 18.2 Demographic Characteristics of Injured Girls' Track and Field Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	19	19.6%
Sophomore	32	33.0%
Junior	22	22.7%
Senior	24	24.7%
Total	***97***	***100.0%***

Age (years)	
Minimum	14
Maximum	18
Mean (SD)	16.1 (1.3)
n	74

BMI	
Minimum	16.6
Maximum	31.6
Mean (SD)	21.4 (2.9)
n	59

* Throughout this report, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 18.1 Diagnosis of Girls' Track and Field Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

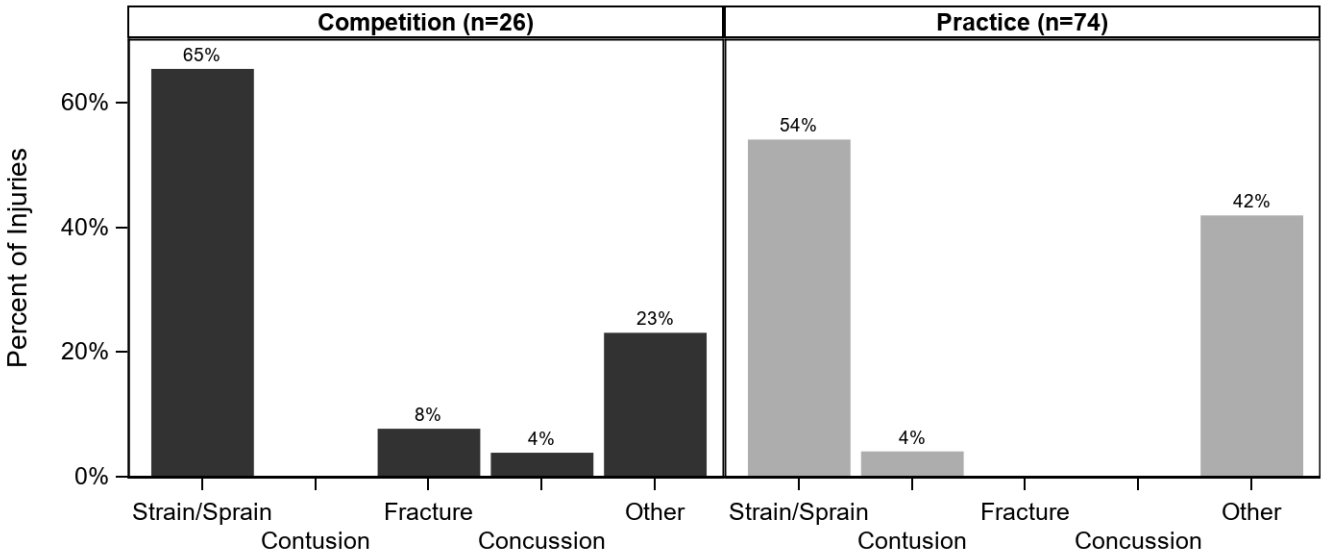


Table 18.3 Body Site of Girls' Track and Field Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

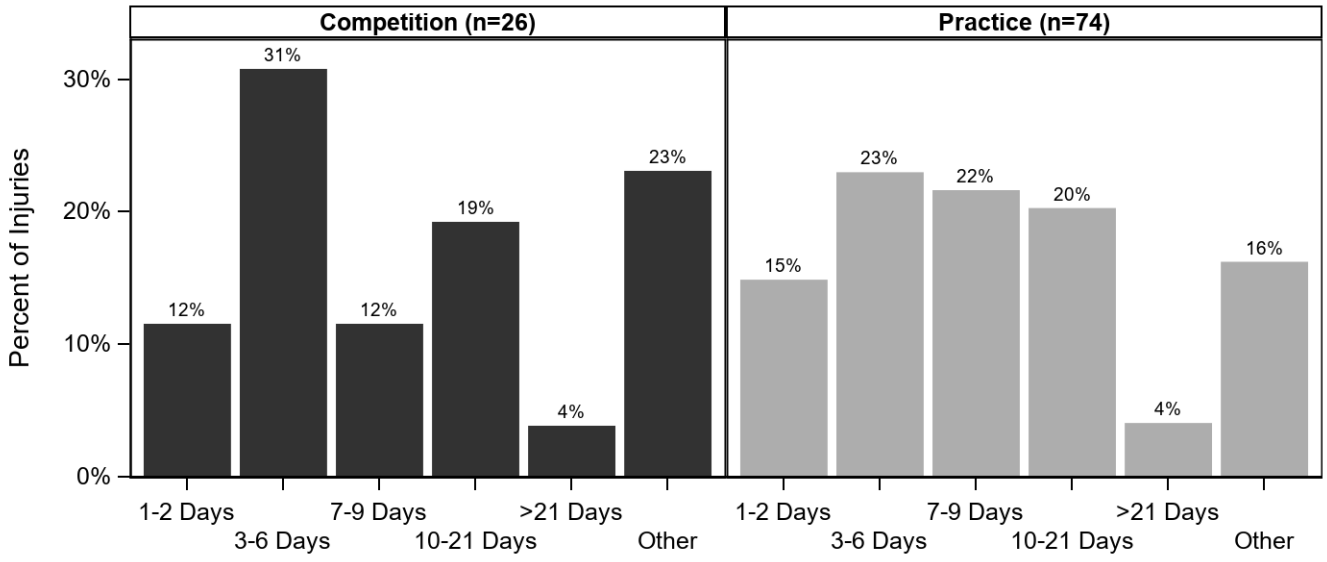
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Hip/Thigh/Upper Leg	8	30.8%	24	32.4%	32	32.0%
Lower Leg	4	15.4%	21	28.4%	25	25.0%
Ankle	6	23.1%	9	12.2%	15	15.0%
Trunk	1	3.8%	7	9.5%	8	8.0%
Foot	3	11.5%	3	4.1%	6	6.0%
Shoulder	0	0.0%	5	6.8%	5	5.0%
Knee	1	3.8%	3	4.1%	4	4.0%
Head/Face	1	3.8%	2	2.7%	3	3.0%
Other	2	7.7%	0	0.0%	2	2.0%
Total	***26***	***100.0%***	***74***	***100.0%***	***100***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 18.4 Ten Most Common Girls' Track and Field Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=26)		Practice (n=74)		Overall (n=100)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Hip/Thigh/Upper Leg Strain/Sprain	6	23.1%	20	27.0%	26	26.0%
Lower Leg Other	2	7.7%	19	25.7%	21	21.0%
Ankle Strain/Sprain	5	19.2%	8	10.8%	13	13.0%
Trunk Strain/Sprain	1	3.8%	6	8.1%	7	7.0%
Hip/Thigh/Upper Leg Other	2	7.7%	4	5.4%	6	6.0%
Lower Leg Strain/Sprain	2	7.7%	2	2.7%	4	4.0%
Foot Other	1	3.8%	2	2.7%	3	3.0%
Knee Other	1	3.8%	2	2.7%	3	3.0%
Shoulder Strain/Sprain	0	0.0%	3	4.1%	3	3.0%
Foot Strain/Sprain	2	7.7%	0	0.0%	2	2.0%

Figure 18.2 Time Loss of Girls' Track and Field Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 18.5 Girls' Track and Field Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	0	0.0%	2	2.7%	2	2.0%
Did Not Require Surgery	26	100.0%	71	97.3%	97	98.0%
Total	***26***	***100.0%***	***73***	***100.0%***	***99***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 18.3 History of Girls' Track and Field Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

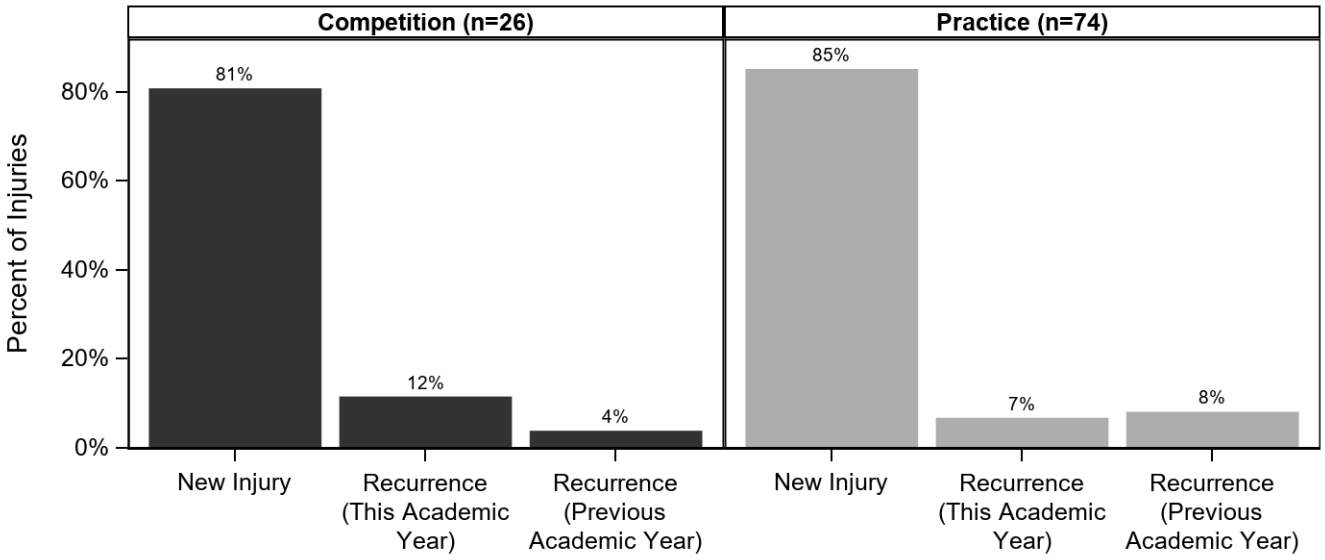


Table 18.6 Time during Season of Girls' Track and Field Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	26	26.8%
Regular Season	65	67.0%
Post Season	6	6.2%
Total	***97***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 18.7 Practice-Related Variables for Girls' Track and Field Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	4	5.6%
Second 1/2 Hour	7	9.9%
1-2 Hours into Practice	32	45.1%
Unknown	28	39.4%
Total	***71***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 18.8 Activities Leading to Girls' Track and Field Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
Running	12	54.5%	48	68.6%	60	65.2%
Jumping/Landing	4	18.2%	5	7.1%	9	9.8%
Running Hurdles	3	13.6%	4	5.7%	7	7.6%
Throwing	1	4.5%	5	7.1%	6	6.5%
Leaving Block	1	4.5%	3	4.3%	4	4.3%
Other	1	4.5%	3	4.3%	4	4.3%
Conditioning	0	0.0%	2	2.9%	2	2.2%
Total	***22***	***100.0%***	***70***	***100.0%***	***92***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 18.9 Activity Resulting in Girls' Track and Field Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Conditioning	2	4.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Jumping/Landing	8	16.0%	0	0.0%	0	0.0%	0	0.0%	1	2.8%
Leaving Block	4	8.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	0	0.0%	2	66.7%	1	50.0%	0	0.0%	1	2.8%
Running	28	56.0%	1	33.3%	0	0.0%	1	100.0%	30	83.3%
Running Hurdles	4	8.0%	0	0.0%	1	50.0%	0	0.0%	2	5.6%
Throwing	4	8.0%	0	0.0%	0	0.0%	0	0.0%	2	5.6%
Total	***50***	***100.0%***	***3***	***100.0%***	***2***	***100.0%***	***1***	***100.0%***	***36***	***100.0%***

* Totals and n’s are not always equal due to slight rounding or missing responses.

XIX. Boys' Cross Country Injury Epidemiology

Table 19.1 Boys' Cross Country Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***60***	***53,701***	***1.12***
Competition	10	8,173	1.22
Practice	50	45,528	1.10

* All analyses in this chapter present un-weighted data.

Table 19.2 Demographic Characteristics of Injured Boys' Cross Country Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	15	28.3%
Sophomore	11	20.8%
Junior	14	26.4%
Senior	13	24.5%
Total	***53***	***100.0%***

Age (years)	
Minimum	14
Maximum	18
Mean (SD)	16.0 (1.1)
n	40

BMI	
Minimum	19.2
Maximum	30.8
Mean (SD)	21.9 (3.1)
n	20

* Throughout this report, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 19.1 Diagnosis of Boys' Cross Country Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

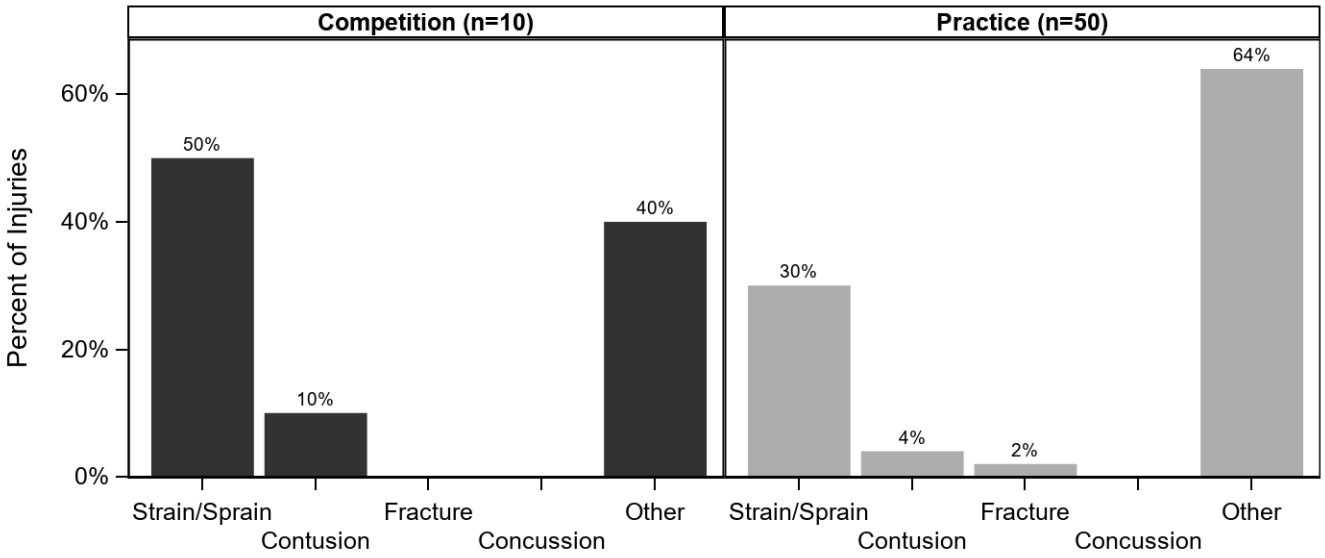


Table 19.3 Body Site of Boys' Cross Country Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

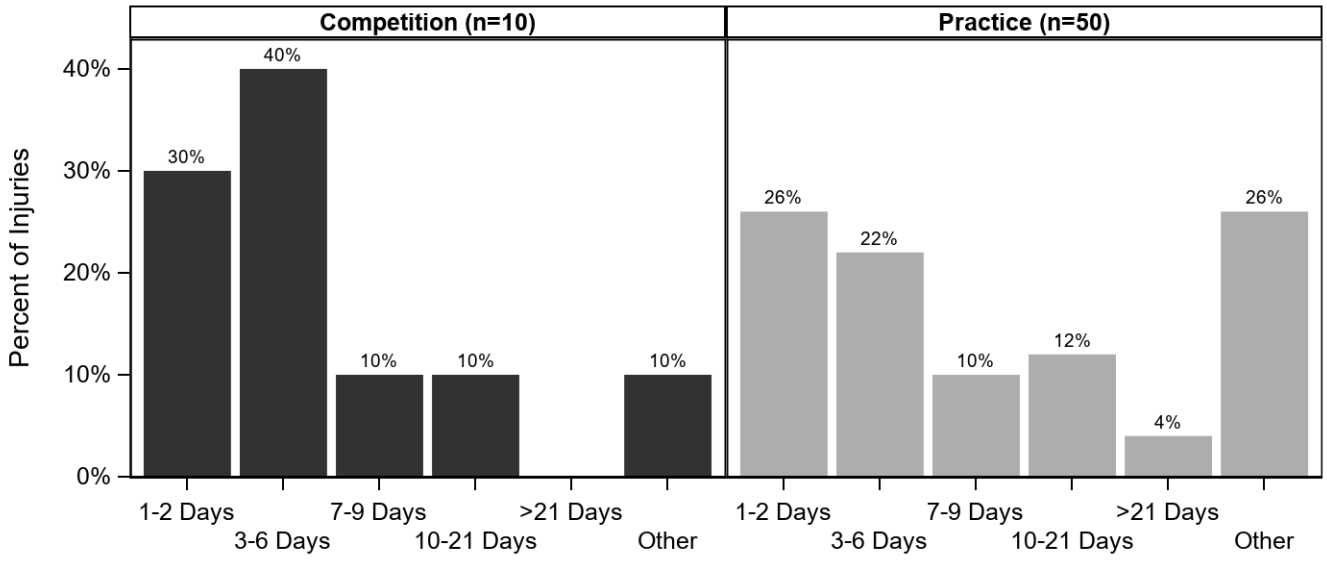
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Lower Leg	6	60.0%	16	32.0%	22	36.7%
Knee	0	0.0%	17	34.0%	17	28.3%
Hip/Thigh/Upper Leg	0	0.0%	8	16.0%	8	13.3%
Foot	1	10.0%	5	10.0%	6	10.0%
Ankle	1	10.0%	3	6.0%	4	6.7%
Systemic	1	10.0%	1	2.0%	2	3.3%
Other	1	10.0%	0	0.0%	1	1.7%
Total	***10***	***100.0%***	***50***	***100.0%***	***60***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 19.4 Ten Most Common Boys' Cross Country Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=10)		Practice (n=50)		Overall (n=60)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Lower Leg Other	2	20.0%	12	24.0%	14	23.3%
Knee Other	0	0.0%	12	24.0%	12	20.0%
Lower Leg Strain/Sprain	3	30.0%	4	8.0%	7	11.7%
Ankle Strain/Sprain	1	10.0%	3	6.0%	4	6.7%
Foot Other	1	10.0%	3	6.0%	4	6.7%
Hip/Thigh/Upper Leg Other	0	0.0%	4	8.0%	4	6.7%
Hip/Thigh/Upper Leg Strain/Sprain	0	0.0%	4	8.0%	4	6.7%
Knee Strain/Sprain	0	0.0%	4	8.0%	4	6.7%
Systemic Other	1	10.0%	1	2.0%	2	3.3%
Foot Contusion	0	0.0%	1	2.0%	1	1.7%

Figure 19.2 Time Loss of Boys' Cross Country Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 19.5 Boys' Cross Country Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Did Not Require Surgery	10	100.0%	50	100.0%	60	100.0%
Total	***10***	***100.0%***	***50***	***100.0%***	***60***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 19.3 History of Boys' Cross Country Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

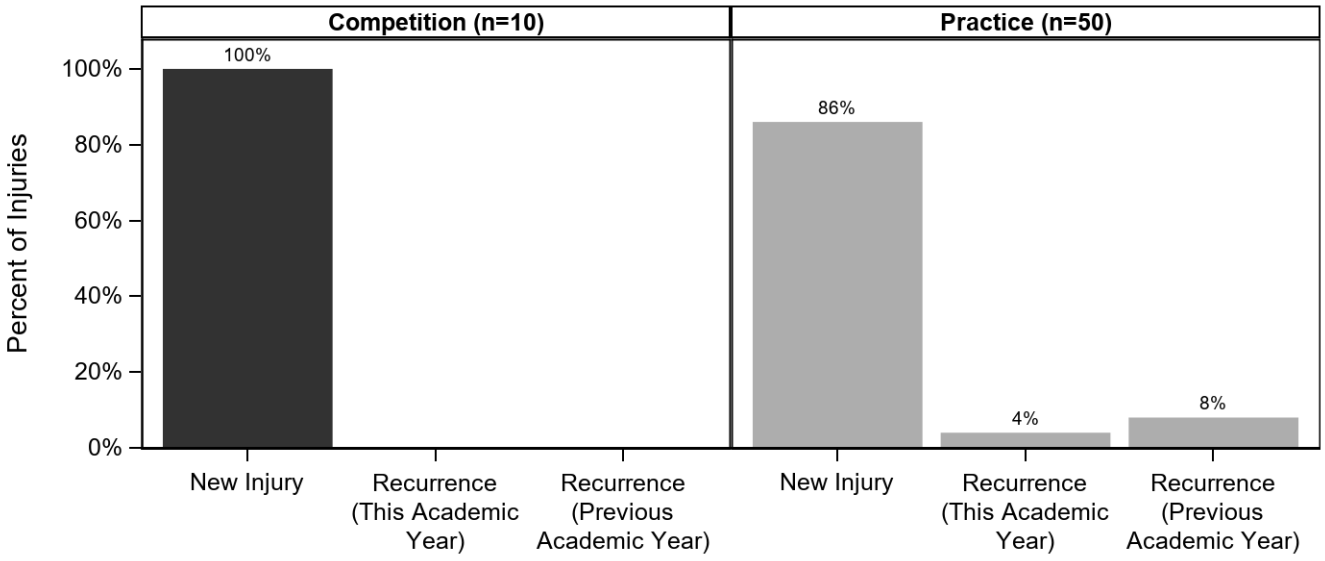


Table 19.6 Time during Season of Boys' Cross Country Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	17	28.8%
Regular Season	40	67.8%
Post Season	2	3.4%
Total	***59***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 19.7 Practice-Related Variables for Boys' Cross Country Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	7	14.3%
Second 1/2 Hour	5	10.2%
1-2 Hours into Practice	17	34.7%
>2 Hours into Practice	3	6.1%
Unknown	17	34.7%
Total	***49***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 19.8 Activities Leading to Boys' Cross Country Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
Running	7	77.8%	29	87.9%	36	85.7%
Unknown	2	22.2%	2	6.1%	4	9.5%
Warming Up	0	0.0%	2	6.1%	2	4.8%
Total	***9***	***100.0%***	***33***	***100.0%***	***42***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 19.9 Activity Resulting in Boys' Cross Country Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis							
	Strain/Sprain		Contusion		Fracture		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Running	13	86.7%	3	100.0%	1	100.0%	19	82.6%
Unknown	2	13.3%	0	0.0%	0	0.0%	2	8.7%
Warming Up	0	0.0%	0	0.0%	0	0.0%	2	8.7%
Total	***15***	***100.0%***	***3***	***100.0%***	***1***	***100.0%***	***23***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

XX. Girls' Cross Country Injury Epidemiology

Table 20.1 Girls' Cross Country Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***49***	***46,567***	***1.05***
Competition	8	6,999	1.14
Practice	41	39,568	1.04

* All analyses in this chapter present un-weighted data.

Table 20.2 Demographic Characteristics of Injured Girls' Cross Country Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	7	21.9%
Sophomore	12	37.5%
Junior	7	21.9%
Senior	6	18.8%
Total	***32***	***100.0%***

Age (years)	
Minimum	13
Maximum	18
Mean (SD)	15.3 (1.2)
n	31

BMI	
Minimum	13.3
Maximum	26.2
Mean (SD)	19.2 (2.8)
n	16

* Throughout this report, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 20.1 Diagnosis of Girls' Cross Country Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

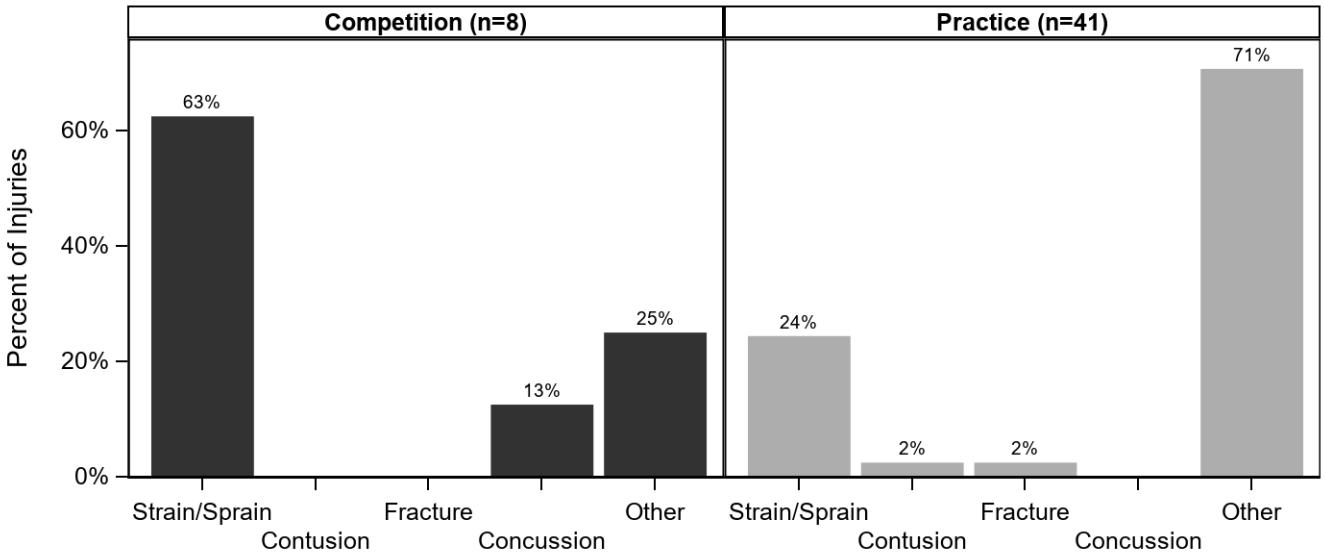


Table 20.3 Body Site of Girls' Cross Country Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

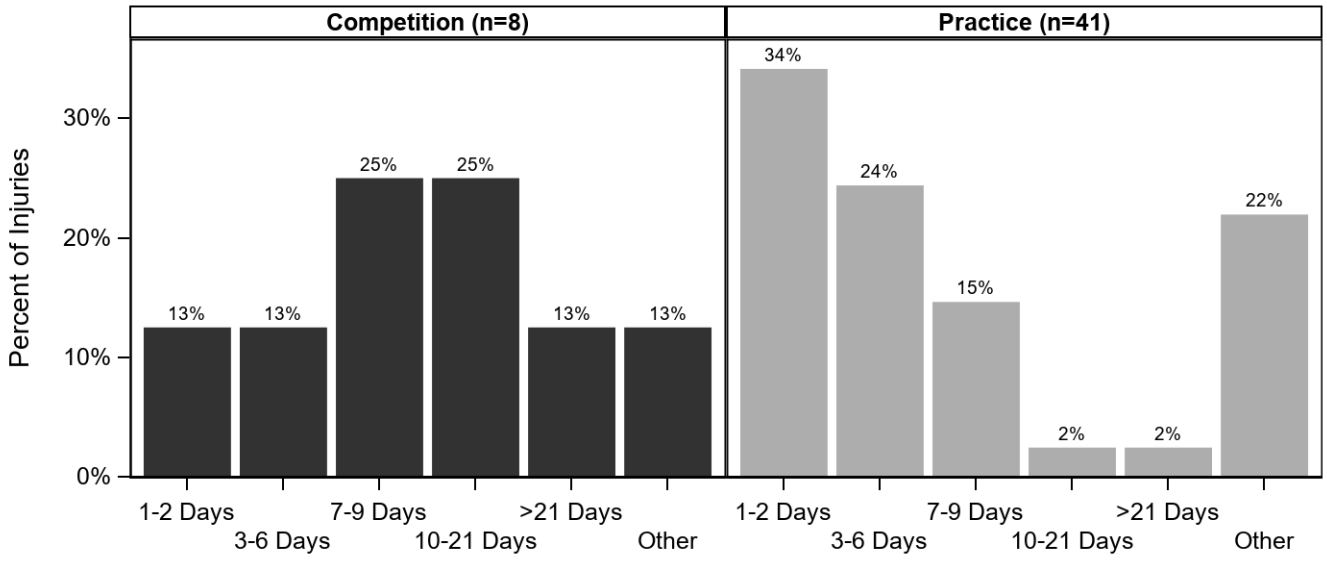
	Competition		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**
Lower Leg	1	12.5%	16	39.0%	17	34.7%
Knee	0	0.0%	10	24.4%	10	20.4%
Hip/Thigh/Upper Leg	2	25.0%	7	17.1%	9	18.4%
Ankle	2	25.0%	5	12.2%	7	14.3%
Trunk	2	25.0%	1	2.4%	3	6.1%
Foot	0	0.0%	2	4.9%	2	4.1%
Head/Face	1	12.5%	0	0.0%	1	2.0%
Total	***8***	***100.0%***	***41***	***100.0%***	***49***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 20.4 Ten Most Common Girls' Cross Country Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=8)		Practice (n=41)		Overall (n=49)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**
Lower Leg Other	0	0.0%	15	36.6%	15	30.6%
Knee Other	0	0.0%	9	22.0%	9	18.4%
Hip/Thigh/Upper Leg Strain/Sprain	2	25.0%	4	9.8%	6	12.2%
Ankle Strain/Sprain	2	25.0%	3	7.3%	5	10.2%
Hip/Thigh/Upper Leg Other	0	0.0%	3	7.3%	3	6.1%
Lower Leg Strain/Sprain	1	12.5%	1	2.4%	2	4.1%
Trunk Other	2	25.0%	0	0.0%	2	4.1%
Ankle Fracture	0	0.0%	1	2.4%	1	2.0%
Ankle Other	0	0.0%	1	2.4%	1	2.0%
Foot Contusion	0	0.0%	1	2.4%	1	2.0%

Figure 20.2 Time Loss of Girls' Cross Country Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 20.5 Girls' Cross Country Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**
Did Not Require Surgery	8	100.0%	41	100.0%	49	100.0%
Total	***8***	***100.0%***	***41***	***100.0%***	***49***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 20.3 History of Girls' Cross Country Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

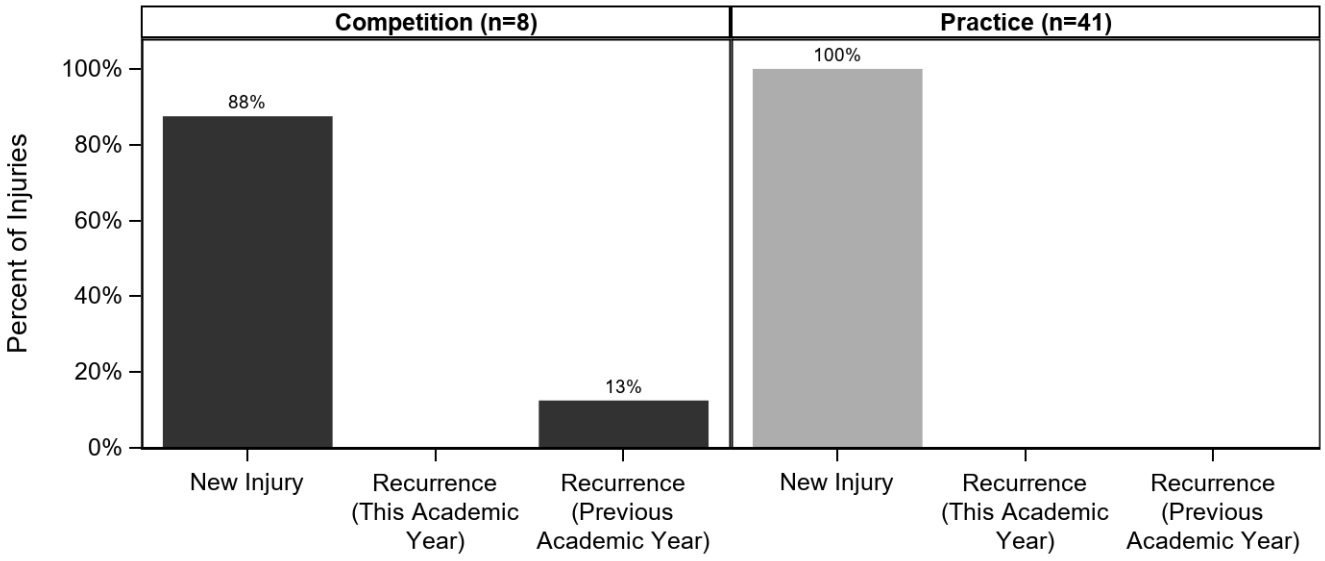


Table 20.6 Time during Season of Girls' Cross Country Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	12	24.5%
Regular Season	34	69.4%
Post Season	3	6.1%
Total	***49***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 20.7 Practice-Related Variables for Girls' Cross Country Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	5	12.5%
Second 1/2 Hour	3	7.5%
1-2 Hours into Practice	22	55.0%
>2 Hours into Practice	5	12.5%
Unknown	5	12.5%
Total	***40***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 20.8 Activities Leading to Girls' Cross Country Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**
Running	6	85.7%	20	76.9%	26	78.8%
Warming Up	0	0.0%	3	11.5%	3	9.1%
Unknown	0	0.0%	2	7.7%	2	6.1%
Conditioning	0	0.0%	1	3.8%	1	3.0%
Other	1	14.3%	0	0.0%	1	3.0%
Total	***7***	***100.0%***	***26***	***100.0%***	***33***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

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Table 20.9 Activity Resulting in Girls' Cross Country Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Conditioning	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	5.6%
Other	1	8.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Running	9	75.0%	1	100.0%	0	0.0%	1	100.0%	15	83.3%
Unknown	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1	5.6%
Warming Up	2	16.7%	0	0.0%	0	0.0%	0	0.0%	1	5.6%
Total	***12***	***100.0%***	***1***	***100.0%***	***1***	***100.0%***	***1***	***100.0%***	***18***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

XXI. Cheerleading Injury Epidemiology

Table 21.1 Cheerleading Injury Rates by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	# Injuries	# Exposures	Injury Rate (per 1,000 AEs)
Total	***89***	***82,827***	***1.07***
Competition	5	4,400	1.14
Performance	18	18,082	1.00
Practice	66	60,345	1.09

* All analyses in this chapter present un-weighted data.

Table 21.2 Demographic Characteristics of Injured Cheerleading Athletes, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Year in School	n	%
Freshman	23	26.1%
Sophomore	28	31.8%
Junior	21	23.9%
Senior	16	18.2%
Total	***88***	***100.0%***

Age (years)	
Minimum	13
Maximum	17
Mean (SD)	15.5 (1.2)
n	60

BMI	
Minimum	17.2
Maximum	38.7
Mean (SD)	22.1 (4.0)
n	43

* Throughout this report, totals and n's represent the total un-weighted number of injury reports containing a valid response for the particular question. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

Figure 21.1 Diagnosis of Cheerleading Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

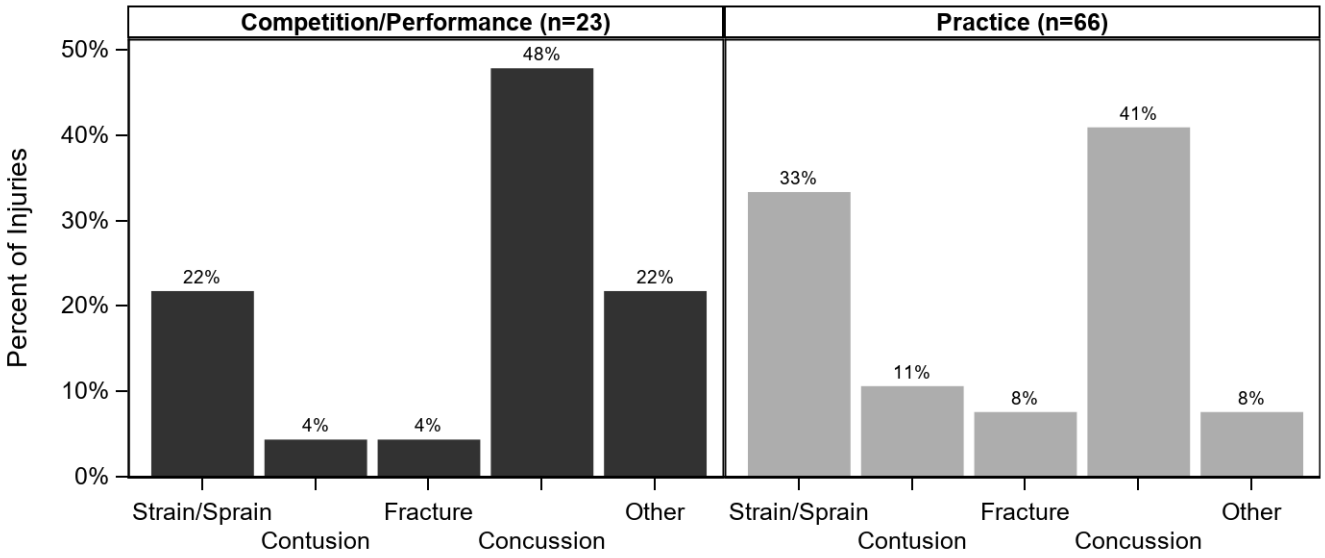


Table 21.3 Body Site of Cheerleading Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

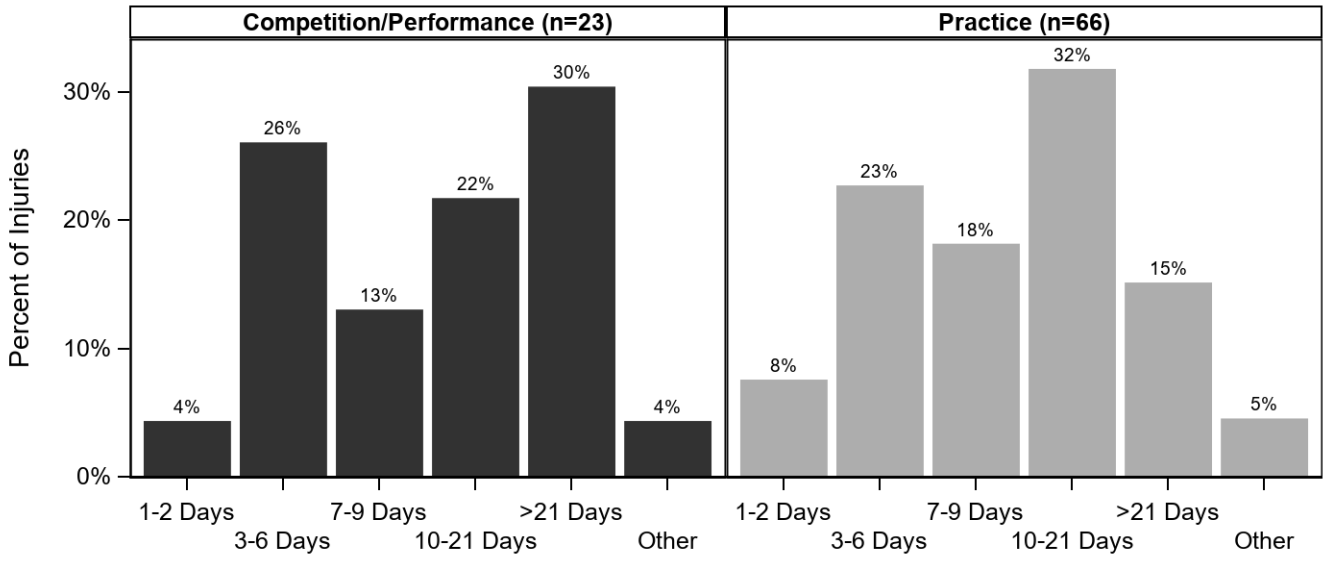
	Competition		Performance		Practice		Overall	
Body Site	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face	3	60.0%	8	44.4%	32	48.5%	43	48.3%
Ankle	0	0.0%	3	16.7%	11	16.7%	14	15.7%
Hand/Wrist	0	0.0%	1	5.6%	5	7.6%	6	6.7%
Trunk	1	20.0%	0	0.0%	5	7.6%	6	6.7%
Neck	0	0.0%	0	0.0%	4	6.1%	4	4.5%
Shoulder	0	0.0%	2	11.1%	2	3.0%	4	4.5%
Arm/Elbow	0	0.0%	0	0.0%	3	4.5%	3	3.4%
Hip/Thigh/Upper Leg	0	0.0%	3	16.7%	0	0.0%	3	3.4%
Knee	0	0.0%	0	0.0%	2	3.0%	2	2.2%
Lower Leg	0	0.0%	0	0.0%	2	3.0%	2	2.2%
Foot	1	20.0%	0	0.0%	0	0.0%	1	1.1%
Systemic	0	0.0%	1	5.6%	0	0.0%	1	1.1%
Total	***5***	***100.0%***	***18***	***100.0%***	***66***	***100.0%***	***89***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 21.4 Ten Most Common Cheerleading Injury Diagnoses by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Competition (n=5)		Performance (n=18)		Practice (n=66)		Overall (n=89)	
Diagnosis	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Head/Face Concussion	3	60.0%	8	12.1%	27	40.9%	38	42.7%
Ankle Strain/Sprain	0	0.0%	3	4.5%	9	13.6%	12	13.5%
Hand/Wrist Fracture	0	0.0%	1	1.5%	3	4.5%	4	4.5%
Shoulder Other	0	0.0%	2	3.0%	2	3.0%	4	4.5%
Trunk Strain/Sprain	0	0.0%	0	0.0%	4	6.1%	4	4.5%
Head/Face Contusion	0	0.0%	0	0.0%	3	4.5%	3	3.4%
Neck Strain/Sprain	0	0.0%	0	0.0%	3	4.5%	3	3.4%
Arm/Elbow Strain/Sprain	0	0.0%	0	0.0%	2	3.0%	2	2.2%
Hand/Wrist Strain/Sprain	0	0.0%	0	0.0%	2	3.0%	2	2.2%
Hip/Thigh/Upper Leg Strain/Sprain	0	0.0%	2	3.0%	0	0.0%	2	2.2%

Figure 21.2 Time Loss of Cheerleading Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *



* Other category is made up of medical disqualification for season, medical disqualification for career, athlete chooses not to continue, and season ended before athlete returned to play.

Table 21.5 Cheerleading Injuries Requiring Surgery by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Performance		Practice		Overall	
Need for Surgery	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Required Surgery	0	0.0%	1	5.9%	1	1.5%	2	2.3%
Did Not Require Surgery	5	100.0%	16	94.1%	65	98.5%	86	97.7%
Total	***5***	***100.0%***	***17***	***100.0%***	***66***	***100.0%***	***88***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Figure 21.3 History of Cheerleading Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

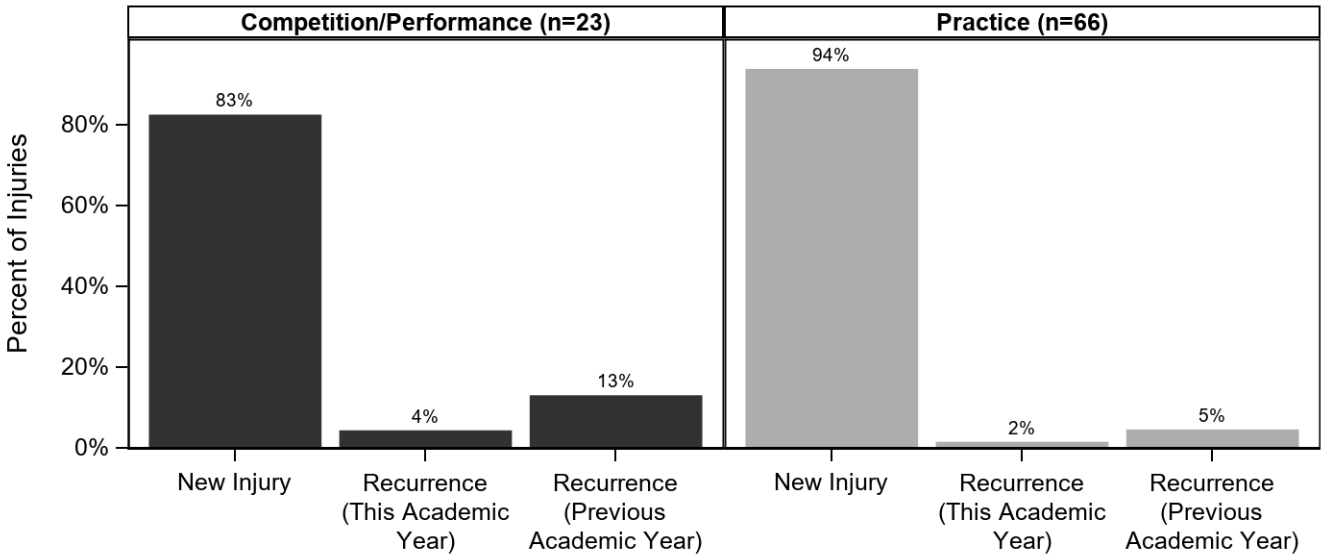


Table 21.6 Time during Season of Cheerleading Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Season	n	%
Preseason	11	12.4%
Regular Season	71	79.8%
Post Season	2	2.2%
Unknown/Other	5	5.6%
Total	***89***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 21.7 Practice-Related Variables for Cheerleading Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time in Practice	n	%
First 1/2 Hour	4	6.6%
Second 1/2 Hour	9	14.8%
1-2 Hours into Practice	29	47.5%
Unknown	19	31.1%
Total	***61***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

Table 21.8 Activities Leading to Cheerleading Injuries by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Competition		Performance		Practice		Overall	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Partner Stunt	2	40.0%	3	16.7%	24	36.4%	29	32.6%
Pyramid	1	20.0%	4	22.2%	10	15.2%	15	16.9%
Unknown	0	0.0%	4	22.2%	9	13.6%	13	14.6%
Toss	0	0.0%	1	5.6%	7	10.6%	8	9.0%
Jump	0	0.0%	3	16.7%	4	6.1%	7	7.9%
Standing Tumbling	1	20.0%	1	5.6%	4	6.1%	6	6.7%
Moving Tumbling	0	0.0%	0	0.0%	4	6.1%	4	4.5%
Other	0	0.0%	2	11.1%	2	3.0%	4	4.5%
Warm-Up	1	20.0%	0	0.0%	2	3.0%	3	3.4%
Total	***5***	***100.0%***	***18***	***100.0%***	***66***	***100.0%***	***89***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

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Table 21.9 Activity Resulting in Cheerleading Injuries by Injury Diagnosis, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

	Diagnosis									
	Strain/Sprain		Contusion		Fracture		Concussion		Other	
Activity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Jump	6	22.2%	0	0.0%	0	0.0%	1	2.6%	0	0.0%
Moving Tumbling	2	7.4%	1	12.5%	1	16.7%	0	0.0%	0	0.0%
Other	1	3.7%	0	0.0%	0	0.0%	1	2.6%	2	20.0%
Partner Stunt	5	18.5%	3	37.5%	3	50.0%	15	39.5%	3	30.0%
Pyramid	0	0.0%	0	0.0%	1	16.7%	13	34.2%	1	10.0%
Standing Tumbling	4	14.8%	0	0.0%	0	0.0%	0	0.0%	2	20.0%
Toss	1	3.7%	2	25.0%	0	0.0%	5	13.2%	0	0.0%
Unknown	6	22.2%	2	25.0%	1	16.7%	2	5.3%	2	20.0%
Warm-Up	2	7.4%	0	0.0%	0	0.0%	1	2.6%	0	0.0%
Total	***27***	***100.0%***	***8***	***100.0%***	***6***	***100.0%***	***38***	***100.0%***	***10***	***100.0%***

* Totals and n's are not always equal due to slight rounding or missing responses.

XXII. Gender Differences within Sports

22.1 Boys' and Girls' Soccer

Table 22.1 Comparison of Boys' and Girls' Soccer Injury Rates, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Boys' Soccer	Girls' Soccer *	RR (95% CI) **
Total	1.95	**2.90**	**1.49 (1.31-1.69)**
Competition	4.02	**6.43**	**1.60 (1.37-1.87)**
Practice	0.97	**1.27**	**1.31 (1.04-1.64)**

* Throughout this chapter, rate ratios (RR) and injury proportion ratios (IPR) compare the gender with a higher injury rate/proportion (bolded) to the gender with a lower injury rate/proportion.
** Throughout this chapter, statistically significant RR and IPR are bolded.

Table 22.2 Comparison of Body Sites of Boys' and Girls' Soccer Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Body Site	Boys' Soccer	Girls' Soccer	IPR (95% CI)
Head/Face	16.2%	**19.2%**	1.19 (0.90-1.58)
Neck	0.2%	**0.6%**	2.62 (0.27-25.20)
Shoulder	**2.3%**	0.8%	2.86 (0.90-9.08)
Trunk	2.3%	**2.5%**	1.05 (0.46-2.40)
Arm/Elbow	**1.4%**	0.4%	3.44 (0.70-16.98)
Hand/Wrist	**4.7%**	3.3%	1.43 (0.75-2.73)
Hip/Thigh/Upper Leg	**22.2%**	16.8%	**1.33 (1.02-1.73)**
Knee	13.8%	**20.0%**	**1.45 (1.08-1.95)**
Lower Leg	4.2%	**7.4%**	**1.75 (1.01-3.03)**
Ankle	23.9%	**23.9%**	1.00 (0.79-1.26)
Foot	**7.7%**	4.3%	**1.80 (1.06-3.07)**
Other	**0.5%**	0.4%	1.15 (0.16-8.12)
Systemic	**0.5%**	0.4%	1.15 (0.16-8.12)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.3 Comparison of Diagnoses of Boys' and Girls' Soccer Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Soccer	Girls' Soccer	IPR (95% CI)
Strain/Sprain	52.2%	**53.0%**	1.01 (0.90-1.15)
Contusion	**12.6%**	11.5%	1.10 (0.78-1.57)
Fracture	**9.4%**	2.5%	**3.82 (2.03-7.19)**
Concussion	13.1%	**17.4%**	1.33 (0.97-1.81)
Other	12.6%	**15.7%**	1.25 (0.90-1.72)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.4 Most Common Boys' and Girls' Soccer Injury Diagnoses, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Soccer	Girls' Soccer	IPR (95% CI)
Ankle Strain/Sprain	20.8%	**23.1%**	1.11 (0.87-1.42)
Head/Face Concussion	13.1%	**17.4%**	1.33 (0.97-1.81)
Hip/Thigh/Upper Leg Strain/Sprain	**17.3%**	13.5%	1.28 (0.95-1.74)
Knee Other	6.3%	**8.0%**	1.26 (0.79-2.03)
Knee Strain/Sprain	5.4%	**8.2%**	1.52 (0.92-2.50)

* Only includes diagnoses accounting for >5% of boys' or girls' soccer injuries.

Table 22.5 Comparison of Time Loss of Boys' and Girls' Soccer Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time Loss	Boys' Soccer	Girls' Soccer	IPR (95% CI)
1-2 Days	16.4%	**19.2%**	1.17 (0.88-1.55)
3-6 Days	**26.7%**	25.8%	1.04 (0.83-1.29)
7-9 Days	**16.9%**	14.5%	1.16 (0.86-1.57)
10-21 Days	21.1%	**21.3%**	1.01 (0.79-1.30)
>21 Days	**5.9%**	5.1%	1.15 (0.67-1.97)
Other	13.1%	**14.1%**	1.08 (0.77-1.49)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.6 Comparison of Mechanisms of Boys' and Girls' Soccer Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Soccer Mechanism	Boys' Soccer	Girls' Soccer	IPR (95% CI)
Contact with Another Player	**24.5%**	24.4%	1.00 (0.79-1.27)
Contact with Ball	11.6%	**17.1%**	**1.48 (1.05-2.07)**
Contact with Goal	0.0%	**0.9%**	--
N/A **	**14.4%**	11.0%	1.31 (0.92-1.87)
Other	**11.6%**	9.0%	1.29 (0.86-1.92)
Rotation Around a Planted Foot/Inversion	10.1%	**13.8%**	1.37 (0.94-1.99)
Slide Tackle	**5.6%**	3.5%	1.58 (0.84-2.97)
Stepped On/Fell On/Kicked	**11.6%**	10.3%	1.12 (0.77-1.65)
Uneven Playing Surface	2.0%	**2.2%**	1.09 (0.43-2.73)
Unknown	**8.6%**	7.7%	1.12 (0.71-1.76)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.
** Includes overuse, heat illness, conditioning, etc.

Table 22.7 Comparison of Activities of Boys' and Girls' Soccer Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Soccer Activity	Boys' Soccer	Girls' Soccer	IPR (95% CI)
Attempting a Slide Tackle	**1.3%**	0.7%	1.95 (0.47-8.14)
Ball Handling/Dribbling	**9.2%**	8.8%	1.05 (0.69-1.62)
Blocking Shot	0.5%	**2.4%**	**4.69 (1.04-21.11)**
Chasing Loose Ball	**7.7%**	7.4%	1.03 (0.64-1.66)
Conditioning	**3.8%**	3.1%	1.26 (0.61-2.57)
Defending	9.2%	**14.0%**	**1.52 (1.03-2.23)**
General Play	22.8%	**27.4%**	1.20 (0.95-1.52)
Goaltending	**7.9%**	5.7%	1.40 (0.84-2.31)
Heading Ball	**5.1%**	3.9%	1.30 (0.70-2.43)
Other	**1.8%**	0.7%	2.73 (0.71-10.53)
Passing	3.6%	**4.4%**	1.22 (0.62-2.38)
Receiving Pass	2.6%	**3.7%**	1.45 (0.67-3.14)
Receiving a Slide Tackle	**1.5%**	0.2%	7.03 (0.85-58.40)
Shooting	**6.7%**	4.4%	1.52 (0.86-2.69)
Unknown	**16.2%**	13.3%	1.21 (0.87-1.68)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

22.2 Boys' and Girls' Basketball

Table 22.8 Comparison of Boys' and Girls' Basketball Injury Rates, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Boys' Basketball	Girls' Basketball *	RR (95% CI) **
Total	1.74	**2.05**	**1.18 (1.02-1.36)**
Competition	2.65	**4.07**	**1.54 (1.26-1.87)**
Practice	**1.33**	1.10	1.21 (0.97-1.52)

* Throughout this chapter, rate ratios (RR) and injury proportion ratios (IPR) compare the gender with a higher injury rate/proportion (bolded) to the gender with a lower injury rate/proportion.
** Throughout this chapter, statistically significant RR and IPR are bolded.

Table 22.9 Comparison of Body Sites of Boys' and Girls' Basketball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Body Site	Boys' Basketball	Girls' Basketball	IPR (95% CI)
Head/Face	14.7%	**19.9%**	1.35 (0.98-1.86)
Shoulder	**2.2%**	1.6%	1.37 (0.46-4.07)
Trunk	**3.8%**	2.2%	1.75 (0.73-4.20)
Arm/Elbow	0.7%	**1.3%**	1.75 (0.39-7.77)
Hand/Wrist	**8.4%**	7.3%	1.16 (0.70-1.93)
Hip/Thigh/Upper Leg	**8.4%**	5.7%	1.49 (0.86-2.58)
Knee	13.5%	**17.7%**	1.33 (0.95-1.88)
Lower Leg	3.1%	**4.4%**	1.41 (0.67-2.96)
Ankle	**39.7%**	34.7%	1.15 (0.95-1.39)
Foot	**3.6%**	3.2%	1.15 (0.52-2.52)
Other	**0.7%**	0.3%	2.29 (0.24-22.04)
Systemic	1.2%	**1.9%**	1.57 (0.48-5.12)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.10 Comparison of Diagnoses of Boys' and Girls' Basketball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Basketball	Girls' Basketball	IPR (95% CI)
Strain/Sprain	**60.0%**	54.3%	1.11 (0.97-1.26)
Contusion	**9.6%**	8.5%	1.13 (0.71-1.80)
Fracture	**7.0%**	5.7%	1.23 (0.70-2.18)
Concussion	7.5%	**14.2%**	**1.90 (1.23-2.93)**
Other	15.9%	**17.4%**	1.09 (0.79-1.51)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.11 Most Common Boys' and Girls' Basketball Injury Diagnoses, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Basketball	Girls' Basketball	IPR (95% CI)
Ankle Strain/Sprain	**38.1%**	33.4%	1.14 (0.93-1.39)
Head/Face Concussion	7.5%	**13.9%**	**1.86 (1.20-2.88)**
Hip/Thigh/Upper Leg Strain/Sprain	**5.3%**	4.1%	1.29 (0.66-2.53)
Knee Other	5.1%	**7.3%**	1.43 (0.81-2.55)
Knee Strain/Sprain	5.8%	**7.9%**	1.36 (0.79-2.34)

* Only includes diagnoses accounting for >5% of boys' or girls' basketball injuries.

Table 22.12 Comparison of Time Loss of Boys' and Girls' Basketball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time Loss	Boys' Basketball	Girls' Basketball	IPR (95% CI)
1-2 Days	**23.6%**	18.3%	1.29 (0.97-1.73)
3-6 Days	25.7%	**27.1%**	1.05 (0.82-1.34)
7-9 Days	14.4%	**15.1%**	1.05 (0.74-1.49)
10-21 Days	**19.0%**	17.7%	1.06 (0.78-1.45)
>21 Days	4.1%	**6.3%**	1.54 (0.82-2.90)
Other	13.2%	**15.5%**	1.17 (0.82-1.67)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.13 Comparison of Mechanisms of Boys' and Girls' Basketball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Basketball Mechanism	Boys' Basketball	Girls' Basketball	IPR (95% CI)
Collision with Another Player	24.7%	**26.9%**	1.09 (0.84-1.41)
Contact with Ball	2.8%	**5.1%**	1.80 (0.84-3.88)
Jumping/Landing	**25.7%**	16.0%	**1.61 (1.18-2.20)**
N/A **	8.2%	**9.5%**	1.16 (0.71-1.88)
Other	8.0%	**10.9%**	1.37 (0.85-2.19)
Rotation Around a Planted Foot/Inversion	14.7%	**15.0%**	1.02 (0.71-1.47)
Stepped On/Fell On/Kicked	**11.3%**	8.2%	1.39 (0.86-2.23)
Unknown	4.6%	**8.5%**	**1.84 (1.02-3.31)**
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.
** Includes overuse, heat illness, conditioning, etc.

Table 22.14 Comparison of Activities of Boys' and Girls' Basketball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Basketball Activity	Boys' Basketball	Girls' Basketball	IPR (95% CI)
Ball Handling/Dribbling	5.2%	**8.3%**	1.61 (0.90-2.86)
Chasing Loose Ball	**9.8%**	8.7%	1.14 (0.70-1.84)
Conditioning	**3.4%**	2.8%	1.21 (0.51-2.90)
Defending	12.7%	**18.3%**	**1.45 (1.01-2.07)**
General Play	**21.4%**	21.1%	1.02 (0.76-1.36)
Other	**2.3%**	1.0%	2.24 (0.61-8.23)
Passing	0.8%	**1.0%**	1.34 (0.27-6.61)
Rebounding	**23.0%**	16.6%	**1.38 (1.01-1.90)**
Receiving Pass	2.6%	**3.1%**	1.21 (0.50-2.93)
Screening	**0.5%**	0.3%	1.49 (0.14-16.49)
Shooting	**11.1%**	7.3%	1.53 (0.93-2.52)
Unknown	7.2%	**11.4%**	1.58 (0.98-2.55)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

22.3 Boys' and Girls' Wrestling

Table 22.15 Comparison of Boys' and Girls' Wrestling Injury Rates, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Boys' Wrestling	Girls' Wrestling *	RR (95% CI) **
Total	2.88	**3.35**	1.16 (0.95-1.42)
Competition	4.99	**6.86**	**1.38 (1.02-1.86)**
Practice	2.15	**2.41**	1.12 (0.86-1.46)

* Throughout this chapter, rate ratios (RR) and injury proportion ratios (IPR) compare the gender with a higher injury rate/proportion (bolded) to the gender with a lower injury rate/proportion.
** Throughout this chapter, statistically significant RR and IPR are bolded.

Table 22.16 Comparison of Body Sites of Boys' and Girls' Wrestling Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Body Site	Boys' Wrestling	Girls' Wrestling	IPR (95% CI)
Head/Face	24.0%	**24.6%**	1.02 (0.72-1.45)
Neck	**3.0%**	0.0%	--
Shoulder	12.1%	**13.6%**	1.12 (0.67-1.87)
Trunk	5.8%	**5.9%**	1.01 (0.46-2.25)
Arm/Elbow	10.8%	**14.4%**	1.34 (0.81-2.22)
Hand/Wrist	**7.9%**	4.2%	1.87 (0.76-4.65)
Hip/Thigh/Upper Leg	**3.8%**	3.4%	1.12 (0.39-3.21)
Knee	**17.9%**	13.6%	1.31 (0.80-2.14)
Lower Leg	**1.5%**	0.0%	--
Ankle	7.2%	**16.9%**	**2.36 (1.42-3.91)**
Foot	**2.5%**	1.7%	1.45 (0.33-6.36)
Other	**1.7%**	0.8%	2.01 (0.26-15.78)
Systemic	**1.9%**	0.8%	2.23 (0.29-17.35)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.17 Comparison of Diagnoses of Boys' and Girls' Wrestling Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Wrestling	Girls' Wrestling	IPR (95% CI)
Strain/Sprain	**39.1%**	38.1%	1.03 (0.80-1.32)
Contusion	4.7%	**12.7%**	**2.69 (1.46-4.95)**
Fracture	**7.2%**	5.9%	1.21 (0.55-2.65)
Concussion	**16.8%**	16.1%	1.04 (0.66-1.65)
Other	**32.1%**	27.1%	1.19 (0.86-1.63)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.18 Most Common Boys' and Girls' Wrestling Injury Diagnoses, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Wrestling	Girls' Wrestling	IPR (95% CI)
Ankle Strain/Sprain	6.8%	**16.9%**	**2.49 (1.50-4.15)**
Arm/Elbow Other	4.5%	**9.3%**	**2.05 (1.03-4.08)**
Arm/Elbow Strain/Sprain	**5.5%**	2.5%	2.16 (0.67-6.98)
Head/Face Concussion	**16.6%**	16.1%	1.03 (0.66-1.63)
Head/Face Other	**6.2%**	5.1%	1.23 (0.52-2.87)
Knee Contusion	1.9%	**5.9%**	**3.14 (1.22-8.09)**
Knee Other	**9.3%**	2.5%	**3.64 (1.15-11.52)**
Knee Strain/Sprain	**6.4%**	5.1%	1.26 (0.54-2.95)
Shoulder Other	4.5%	**7.6%**	1.68 (0.80-3.53)
Shoulder Strain/Sprain	**7.0%**	5.1%	1.38 (0.59-3.19)

* Only includes diagnoses accounting for >5% of boys' or girls' wrestling injuries.

Table 22.19 Comparison of Time Loss of Boys' and Girls' Wrestling Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time Loss	Boys' Wrestling	Girls' Wrestling	IPR (95% CI)
1-2 Days	**11.5%**	9.3%	1.24 (0.67-2.28)
3-6 Days	24.0%	**24.6%**	1.02 (0.72-1.45)
7-9 Days	13.4%	**16.9%**	1.26 (0.80-1.99)
10-21 Days	22.1%	**24.6%**	1.11 (0.78-1.59)
>21 Days	**7.7%**	5.9%	1.31 (0.60-2.85)
Other	**21.3%**	18.6%	1.14 (0.75-1.72)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.20 Comparison of Mechanisms of Boys' and Girls' Wrestling Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Wrestling Mechanism	Boys' Wrestling	Girls' Wrestling	IPR (95% CI)
Acute no contact	**11.0%**	10.3%	1.06 (0.59-1.92)
Contact with another player	**37.7%**	36.2%	1.04 (0.80-1.36)
Contact with playing apparatus	**0.9%**	0.0%	--
Contact with playing surface	**27.7%**	27.6%	1.00 (0.72-1.39)
Illness	11.0%	**13.8%**	1.26 (0.75-2.11)
Other	0.9%	**1.7%**	1.82 (0.36-9.31)
Overuse/chronic	1.7%	**2.6%**	1.52 (0.42-5.54)
Unknown	**9.1%**	7.8%	1.17 (0.59-2.32)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.
** Includes overuse, heat illness, conditioning, etc.

Table 22.21 Comparison of Activities of Boys' and Girls' Wrestling Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Wrestling Activity	Boys' Wrestling	Girls' Wrestling	IPR (95% CI)
Conditioning	2.1%	**4.6%**	2.19 (0.76-6.30)
Escape	1.5%	**4.6%**	**3.13 (1.01-9.70)**
Fall	4.4%	**4.6%**	1.04 (0.40-2.71)
N/A	13.7%	**14.8%**	1.08 (0.65-1.79)
Near fall	2.1%	**3.7%**	1.75 (0.56-5.50)
Other	**2.5%**	0.0%	--
Reversal	**3.2%**	2.8%	1.14 (0.34-3.89)
Riding	1.9%	**3.7%**	1.95 (0.61-6.22)
Sparing	**15.9%**	12.0%	1.32 (0.76-2.29)
Takedown	**30.4%**	26.9%	1.13 (0.81-1.59)
Unknown	22.2%	**22.2%**	1.00 (0.68-1.48)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

22.4 Boys' Baseball and Girls' Softball

Table 22.22 Comparison of Baseball and Softball Injury Rates, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Boys' Baseball	Girls' Softball *	RR (95% CI) **
Total	1.11	**1.33**	1.20 (0.97-1.47)
Competition	1.70	**1.96**	1.15 (0.87-1.53)
Practice	0.76	**0.99**	1.30 (0.95-1.77)

* Throughout this chapter, rate ratios (RR) and injury proportion ratios (IPR) compare the gender with a higher injury rate/proportion (bolded) to the gender with a lower injury rate/proportion.
** Throughout this chapter, statistically significant RR and IPR are bolded.

Table 22.23 Comparison of Body Sites of Baseball and Softball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Body Site	Boys' Baseball	Girls' Softball	IPR (95% CI)
Head/Face	11.7%	**22.1%**	**1.85 (1.14-3.01)**
Neck	0.5%	**1.3%**	2.69 (0.24-29.77)
Shoulder	**18.9%**	7.8%	**2.41 (1.30-4.47)**
Trunk	5.8%	**6.5%**	1.12 (0.50-2.54)
Arm/Elbow	**14.1%**	4.5%	**3.08 (1.38-6.86)**
Hand/Wrist	7.8%	**11.7%**	1.51 (0.80-2.88)
Hip/Thigh/Upper Leg	**15.5%**	5.2%	**2.97 (1.40-6.29)**
Knee	10.7%	**16.2%**	1.53 (0.90-2.61)
Lower Leg	**4.4%**	3.2%	1.34 (0.45-3.93)
Ankle	7.8%	**14.9%**	**1.94 (1.06-3.55)**
Foot	1.0%	**5.2%**	**5.39 (1.15-25.19)**
Other	**1.0%**	0.6%	1.49 (0.13-16.42)
Systemic	**1.0%**	0.6%	1.49 (0.13-16.42)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.24 Comparison of Diagnoses of Baseball and Softball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Baseball	Girls' Softball	IPR (95% CI)
Strain/Sprain	**41.7%**	35.9%	1.16 (0.89-1.52)
Contusion	11.7%	**17.0%**	1.46 (0.87-2.44)
Fracture	**12.1%**	11.8%	1.03 (0.58-1.83)
Concussion	4.4%	**15.7%**	**3.59 (1.71-7.53)**
Other	**30.1%**	19.6%	**1.53 (1.05-2.25)**
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.25 Most Common Baseball and Softball Injury Diagnoses, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Baseball	Girls' Softball	IPR (95% CI)
Ankle Strain/Sprain	6.8%	**13.7%**	**2.02 (1.06-3.85)**
Arm/Elbow Strain/Sprain	**6.3%**	0.7%	**9.66 (1.26-73.73)**
Hand/Wrist Fracture	3.9%	**5.2%**	1.35 (0.51-3.52)
Head/Face Concussion	4.4%	**15.7%**	**3.59 (1.71-7.53)**
Hip/Thigh/Upper Leg Strain/Sprain	**14.1%**	5.2%	**2.69 (1.26-5.74)**
Knee Other	**6.8%**	5.2%	1.30 (0.56-3.03)
Knee Strain/Sprain	2.9%	**6.5%**	2.24 (0.83-6.07)
Shoulder Other	**9.2%**	5.9%	1.57 (0.73-3.38)
Shoulder Strain/Sprain	**6.8%**	1.3%	**5.20 (1.19-22.70)**

* Only includes diagnoses accounting for >5% of boys' baseball or girls' softball injuries.

Table 22.26 Comparison of Time Loss of Baseball and Softball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time Loss	Boys' Baseball	Girls' Softball	IPR (95% CI)
1-2 Days	20.4%	**26.6%**	1.28 (0.88-1.88)
3-6 Days	**19.4%**	16.2%	1.19 (0.75-1.87)
7-9 Days	10.7%	**13.6%**	1.29 (0.73-2.26)
10-21 Days	**18.9%**	17.5%	1.07 (0.69-1.68)
>21 Days	**12.1%**	5.2%	**2.32 (1.07-5.02)**
Other	18.4%	**20.8%**	1.13 (0.74-1.73)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.27 Comparison of Mechanisms of Baseball and Softball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Baseball Mechanism	Boys' Baseball	Girls' Softball	IPR (95% CI)
Contact with Another Player	**8.1%**	7.6%	1.07 (0.51-2.25)
Contact with Bases	**13.2%**	13.1%	1.01 (0.58-1.75)
Contact with Thrown Ball (Non-Pitch)	4.1%	**8.3%**	2.04 (0.85-4.88)
Hit by Batted Ball	8.6%	**15.9%**	**1.84 (1.02-3.32)**
Hit by Pitch	**4.1%**	2.1%	1.96 (0.53-7.32)
N/A **	**13.2%**	12.4%	1.06 (0.60-1.87)
Other	**23.4%**	20.0%	1.17 (0.77-1.77)
Rotation Around a Planted Foot/Inversion	4.6%	**11.7%**	**2.57 (1.17-5.61)**
Throwing (Not Pitching)	**5.6%**	4.1%	1.35 (0.51-3.58)
Throwing (Pitching)	**11.2%**	2.8%	**4.05 (1.42-11.55)**
Unknown	**4.1%**	2.1%	1.96 (0.53-7.32)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.
** Includes overuse, heat illness, conditioning, etc.

Table 22.28 Comparison of Activities of Baseball and Softball Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Baseball Activity	Boys' Baseball	Girls' Softball	IPR (95% CI)
Batting	**13.3%**	7.4%	1.78 (0.91-3.51)
Catching	5.1%	**13.5%**	**2.65 (1.27-5.51)**
Conditioning	**3.6%**	2.0%	1.76 (0.46-6.74)
Fielding a Batted Ball	11.7%	**18.2%**	1.55 (0.93-2.60)
Fielding a Thrown Ball	3.1%	**5.4%**	1.77 (0.62-5.01)
General Play	2.6%	**8.8%**	**3.44 (1.25-9.49)**
Other	2.6%	**3.4%**	1.32 (0.39-4.52)
Pitching	**17.9%**	6.1%	**2.94 (1.45-5.94)**
Running Bases	**20.9%**	14.9%	1.41 (0.88-2.26)
Sliding	7.7%	**10.1%**	1.32 (0.67-2.63)
Throwing	**7.7%**	6.8%	1.13 (0.52-2.46)
Unknown	**4.1%**	3.4%	1.21 (0.40-3.64)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

22.5 Boys' and Girls' Track and Field

Table 22.29 Comparison of Boys' and Girls' Track and Field Injury Rates, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Boys' Track and Field	Girls' Track and Field*	RR (95% CI) **
Total	**0.97**	0.89	1.08 (0.83-1.41)
Competition	**1.61**	1.27	1.26 (0.77-2.09)
Practice	**0.83**	0.81	1.02 (0.75-1.39)

* Throughout this chapter, rate ratios (RR) and injury proportion ratios (IPR) compare the gender with a higher injury rate/proportion (bolded) to the gender with a lower injury rate/proportion.
** Throughout this chapter, statistically significant RR and IPR are bolded.

Table 22.30 Comparison of Body Sites of Boys' and Girls' Track and Field Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Body Site	Boys' Track and Field	Girls' Track and Field	IPR (95% CI)
Head/Face	0.8%	**3.0%**	3.72 (0.39-35.83)
Shoulder	2.4%	**5.0%**	2.07 (0.50-8.53)
Trunk	4.8%	**8.0%**	1.65 (0.59-4.65)
Hand/Wrist	**1.6%**	0.0%	--
Hip/Thigh/Upper Leg	**48.4%**	32.0%	**1.51 (1.07-2.13)**
Knee	**7.3%**	4.0%	1.81 (0.57-5.77)
Lower Leg	**25.8%**	25.0%	1.03 (0.65-1.63)
Ankle	4.8%	**15.0%**	**3.10 (1.24-7.75)**
Foot	2.4%	**6.0%**	2.48 (0.63-9.77)
Other	0.8%	**2.0%**	2.48 (0.22-27.46)
Systemic	**0.8%**	0.0%	--
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.31 Comparison of Diagnoses of Boys' and Girls' Track and Field Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Track and Field	Girls' Track and Field	IPR (95% CI)
Strain/Sprain	**60.5%**	57.0%	1.06 (0.85-1.33)
Contusion	0.8%	**3.0%**	3.72 (0.39-35.83)
Fracture	0.8%	**2.0%**	2.48 (0.22-27.46)
Concussion	0.8%	**1.0%**	1.24 (0.08-20.00)
Other	**37.1%**	37.0%	1.00 (0.71-1.42)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.32 Most Common Boys' and Girls' Track and Field Injury Diagnoses, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Track and Field	Girls' Track and Field	IPR (95% CI)
Ankle Strain/Sprain	4.8%	**13.0%**	**2.69 (1.05-6.86)**
Hip/Thigh/Upper Leg Other	**8.1%**	6.0%	1.34 (0.50-3.60)
Hip/Thigh/Upper Leg Strain/Sprain	**40.3%**	26.0%	**1.55 (1.04-2.31)**
Lower Leg Other	18.5%	**21.0%**	1.13 (0.66-1.93)
Lower Leg Strain/Sprain	**6.5%**	4.0%	1.61 (0.50-5.25)
Trunk Strain/Sprain	3.2%	**7.0%**	2.17 (0.65-7.27)

* Only includes diagnoses accounting for >5% of boys' or girls' track and field injuries.

Table 22.33 Comparison of Time Loss of Boys' and Girls' Track and Field Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time Loss	Boys' Track and Field	Girls' Track and Field	IPR (95% CI)
1-2 Days	13.7%	**14.0%**	1.02 (0.53-1.98)
3-6 Days	**33.1%**	25.0%	1.32 (0.86-2.02)
7-9 Days	16.1%	**19.0%**	1.18 (0.66-2.09)
10-21 Days	18.5%	**20.0%**	1.08 (0.63-1.85)
>21 Days	**8.1%**	4.0%	2.02 (0.65-6.29)
Other	10.5%	**18.0%**	1.72 (0.88-3.35)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.34 Comparison of Mechanisms of Boys' and Girls' Track and Field Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Track Mechanism	Boys' Track and Field	Girls' Track and Field	IPR (95% CI)
Contact with Another Person	0.0%	**2.2%**	--
Contact with Field Equipment	**3.6%**	2.2%	1.63 (0.30-8.80)
Contact with Ground	**13.4%**	7.7%	1.74 (0.74-4.12)
Fall/Trip	1.8%	**6.6%**	3.69 (0.75-18.10)
N/A **	45.5%	**58.2%**	1.28 (0.98-1.67)
Other	**20.5%**	6.6%	**3.11 (1.32-7.38)**
Rotation Around Planted Foot/Inversion	1.8%	**7.7%**	4.31 (0.91-20.50)
Stepped On/Kicked	**2.7%**	1.1%	2.44 (0.25-23.48)
Uneven Playing Surface	**3.6%**	0.0%	--
Unknown	7.1%	**7.7%**	1.08 (0.40-2.88)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.
** Includes overuse, heat illness, conditioning, etc.

Table 22.35 Comparison of Activities of Boys' and Girls' Track and Field Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Track Activity	Boys' Track and Field	Girls' Track and Field	IPR (95% CI)
Conditioning	**6.7%**	2.2%	3.09 (0.66-14.39)
Jumping/Landing	**12.6%**	9.8%	1.29 (0.59-2.83)
Leaving Block	0.8%	**4.3%**	5.17 (0.58-46.33)
Other	1.7%	**4.3%**	2.59 (0.48-14.01)
Running	**68.9%**	65.2%	1.06 (0.87-1.28)
Running Hurdles	1.7%	**7.6%**	4.53 (0.95-21.55)
Throwing	5.0%	**6.5%**	1.29 (0.43-3.91)
Unknown	**0.8%**	0.0%	--
Warming Up	**1.7%**	0.0%	--
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

22.6 Boys' and Girls' Cross Country

Table 22.36 Comparison of Boys' and Girls' Cross Country Injury Rates, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year

	Boys' Cross Country	Girls' Cross Country *	RR (95% CI) **
Total	**1.12**	1.05	1.06 (0.73-1.55)
Competition	**1.22**	1.14	1.07 (0.42-2.71)
Practice	**1.10**	1.04	1.06 (0.70-1.60)

* Throughout this chapter, rate ratios (RR) and injury proportion ratios (IPR) compare the gender with a higher injury rate/proportion (bolded) to the gender with a lower injury rate/proportion.
** Throughout this chapter, statistically significant RR and IPR are bolded.

Table 22.37 Comparison of Body Sites of Boys' and Girls' Cross Country Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Body Site	Boys' Cross Country	Girls' Cross Country	IPR (95% CI)
Head/Face	0.0%	**2.0%**	--
Trunk	0.0%	**6.1%**	--
Hip/Thigh/Upper Leg	13.3%	**18.4%**	1.38 (0.57-3.35)
Knee	**28.3%**	20.4%	1.39 (0.69-2.78)
Lower Leg	**36.7%**	34.7%	1.06 (0.63-1.77)
Ankle	6.7%	**14.3%**	2.14 (0.65-7.03)
Foot	**10.0%**	4.1%	2.45 (0.50-11.90)
Other	**1.7%**	0.0%	--
Systemic	**3.3%**	0.0%	--
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.38 Comparison of Diagnoses of Boys' and Girls' Cross Country Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Cross Country	Girls' Cross Country	IPR (95% CI)
Strain/Sprain	**33.3%**	30.6%	1.09 (0.62-1.91)
Contusion	**5.0%**	2.0%	2.45 (0.25-23.65)
Fracture	1.7%	**2.0%**	1.22 (0.08-19.93)
Concussion	0.0%	**2.0%**	--
Other	60.0%	**63.3%**	1.05 (0.78-1.43)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.39 Most Common Boys' and Girls' Cross Country Injury Diagnoses, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Diagnosis	Boys' Cross Country	Girls' Cross Country	IPR (95% CI)
Ankle Strain/Sprain	6.7%	**10.2%**	1.53 (0.43-5.50)
Foot Other	**6.7%**	2.0%	3.27 (0.36-29.28)
Hip/Thigh/Upper Leg Other	**6.7%**	6.1%	1.09 (0.25-4.74)
Hip/Thigh/Upper Leg Strain/Sprain	6.7%	**12.2%**	1.84 (0.54-6.26)
Knee Other	**20.0%**	18.4%	1.09 (0.49-2.40)
Knee Strain/Sprain	**6.7%**	2.0%	3.27 (0.36-29.28)
Lower Leg Other	23.3%	**30.6%**	1.31 (0.70-2.47)
Lower Leg Strain/Sprain	**11.7%**	4.1%	2.86 (0.61-13.47)

* Only includes diagnoses accounting for >5% of boys' or girls' track and field injuries.

Table 22.40 Comparison of Time Loss of Boys' and Girls' Cross Country Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Time Loss	Boys' Cross Country	Girls' Cross Country	IPR (95% CI)
1-2 Days	26.7%	**30.6%**	1.15 (0.63-2.10)
3-6 Days	**25.0%**	22.4%	1.11 (0.56-2.22)
7-9 Days	10.0%	**16.3%**	1.63 (0.60-4.46)
10-21 Days	**11.7%**	6.1%	1.91 (0.51-7.13)
>21 Days	3.3%	**4.1%**	1.22 (0.17-8.64)
Other	**23.3%**	20.4%	1.14 (0.55-2.37)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

Table 22.41 Comparison of Mechanisms of Boys' and Girls' Cross Country Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Cross Country Mechanism	Boys' Cross Country	Girls' Cross Country	IPR (95% CI)
Contact with Ground	**18.2%**	14.7%	1.24 (0.43-3.52)
Fall/Trip	11.4%	**11.8%**	1.04 (0.29-3.66)
N/A **	**2.3%**	0.0%	--
Other	0.0%	**8.8%**	--
Overuse	50.0%	**58.8%**	1.18 (0.78-1.79)
Uneven Surface	**9.1%**	5.9%	1.55 (0.29-8.24)
Unknown	**9.1%**	0.0%	--
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.
** Includes overuse, heat illness, conditioning, etc.

Table 22.42 Comparison of Activities of Boys' and Girls' Cross Country Injuries, High School Sports-Related Injury Surveillance Study, US, 2024-25 School Year *

Cross Country Activity	Boys' Cross Country	Girls' Cross Country	IPR (95% CI)
Conditioning	0.0%	**3.0%**	--
Other	0.0%	**3.0%**	--
Running	**85.7%**	78.8%	1.09 (0.87-1.36)
Unknown	**9.5%**	6.1%	1.57 (0.29-8.38)
Warming Up	4.8%	**9.1%**	1.91 (0.32-11.22)
Total	***100.0%***	***100.0%***	**--**

* Totals are not always equal to 100% due to slight rounding or missing responses.

REPORTING INFORMATION ONLINE

XXIII. Reporter Demographics & Compliance

During the 2024-25 school year, 135 ATs enrolled to participate in the study. ATs were expected to report for every week in which they were enrolled. For example, an AT who joined the study as a replacement school in week 10 was not expected to report for weeks 1-9. Overall, 124 enrolled ATs reported an average of 42 study weeks with 122 ATs reporting for more than 20 weeks of the study. Internal validity checks of a 5% randomly selected sample of the 144 schools participating in the convenience sample during the 2022-23 academic year yielded 92.6% sensitivity, 95.8% specificity, a positive predictive value of 73.5%, and a negative predictive value of 99.0%. Internal validity checks are completed every three years. The next internal validity check will occur using data from the 2025-26 academic year.

Prior to the start of the study, participating ATs were asked to complete a short demographics survey. The majority (89%) of participating high schools were public schools, with the remainder being private. All ATs except for thirteen provided services to their athletes five or more days each week. 76% of ATs participating during the 2024-25 school year had previously participated in the National High School Sports-Related Injury Surveillance Study.

An online “End of Season” survey gave all participating ATs (both in the original study as well as in the expanded study including those ATs who did not report any data) the opportunity to provide feedback on their experiences with the study. This survey was completed by 94 ATs (70%). Average reporting time burdens were 18 minutes for the weekly exposure report and 7 minutes for the injury report form. Using a 5-point Likert scale, RIO was overwhelmingly reported to be either very easy (52%) or somewhat easy (38%) to use (1 and 2 on the Likert scale, respectively), with ATs being either very satisfied (56%) or somewhat satisfied (35%) with the system (1 and 2 on the Likert scale, respectively). Suggestions provided by ATs, such as the addition or clarification of questions or answer choices, will be used to improve the National High School Sports-Related Injury Surveillance Study for the 2025-26 school year.

REPORTING INFORMATION ONLINE

XXIV. SUMMARY

High school sports play an important role in the adoption and maintenance of a physically active lifestyle among millions of US adolescents. Too often, injury prevention in this population is overlooked as sports-related injuries are thought to be unavoidable. In reality, sports-related injuries are largely preventable through the application of evidence-based preventive interventions. Such preventive interventions can include educational campaigns, introduction of new or improved protective equipment, rule changes, other policy changes, etc. The morbidity, mortality, and disability caused by high school sports-related injuries can be reduced through the development and implementation of improved injury diagnosis and treatment modalities as well as through effective prevention strategies. However, surveillance of exposure-based injury rates in a nationally representative sample of high school athletes and subsequent epidemiologic analysis of patterns of injury are needed to drive evidence-based prevention practices.

Prior to the implementation of the National High School Sports-Related Injury Surveillance Study, the study of high school sports-related injuries had largely been limited by an inability to calculate injury rates due to a lack of exposure data (i.e., frequency of participation in athletic activities including practice and competition), an inability to compare findings across groups (i.e., sports/activities, genders, schools, and levels of competition), or an inability to generalize findings from small non-representative samples. The value of national injury surveillance studies that collect injury, exposure, and risk factor data from representative samples has been well demonstrated by the National Collegiate Athletic Association's Injury Surveillance System (NCAA ISS), now known as the Injury Surveillance Program (ISP). Data collected by the NCAA has been used to develop preventive interventions including increased use of protective equipment and rule changes that have had proven success in reducing injuries among collegiate athletes.

For example, NCAA ISP data have been used to develop several interventions intended to reduce the number of preseason heat-related football injuries including the elimination of consecutive days of multiple practices, daily time limitations, and a gradual increase in equipment for conditioning and heat acclimation. Additionally, several committees have considered NCAA ISP data when making recommendations including the NCAA Committee on Competitive Safeguards and Medical Aspects of Sports' recommendation for mandatory eye protection in women's lacrosse, the NCAA Men's Ice Hockey Rules Committee's recommendation for stricter penalties for hitting from behind, checking into the boards, and not wearing a mouthpiece, and the NCAA Men's Basketball Rules Committee's discussions of widening the free-throw lane to prevent injuries related to player contact. Unfortunately, because an equivalent injury surveillance system to collect injury and exposure data from a nationally representative sample of high school athletes had not previously existed, injury prevention efforts targeted to reduce injury rates in this population were based largely upon data collected from collegiate athletes. This is unacceptable because distinct biophysiological differences (e.g., lower muscle mass, immature growth plates, etc.) means high school athletes are not merely miniature versions of their collegiate counterparts.

The successful implementation and maintenance of the National High School Sports-Related Injury Surveillance Study demonstrates the value of a national injury surveillance system at the high school level. Dr. Collins and her research staff are committed to maintaining a permanent national high school sports injury surveillance system.

While the health benefits of a physically active lifestyle including sports participation are undeniable, participants are at risk of injury because a certain endemic level of injury can be expected during any physical activity, especially those with a competitive component. However, injury rates among high school athletes should be reduced to the lowest possible level without discouraging adolescents from engaging in this important form of physical activity. This goal can be best accomplished by monitoring injury rates and patterns of injury among high school athletes over time; investigating the etiology of preventable injuries; and developing, implementing, and evaluating evidence-based preventive interventions. Surveillance systems such as the model used for this study are critical in achieving these goals.