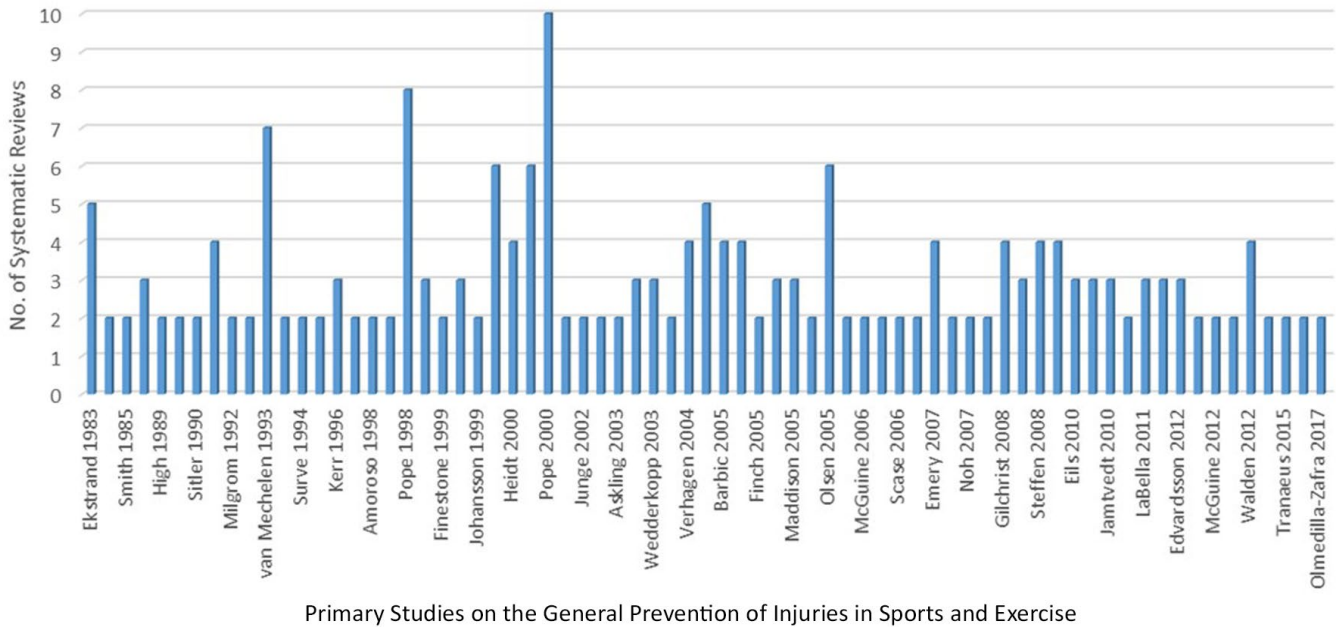
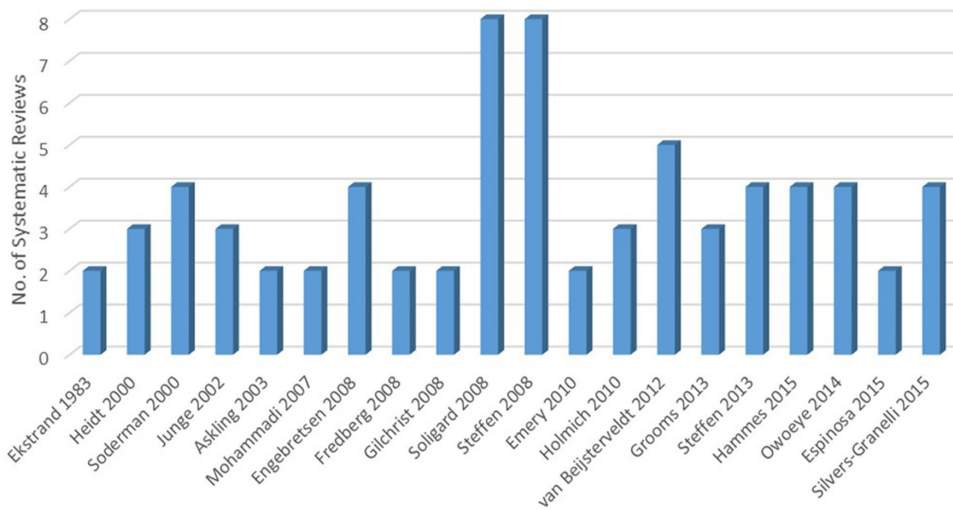


SUPPLEMENTAL MATERIAL



Primary Studies on the General Prevention of Injuries in Sports and Exercise

Figure S1. Number of systematic reviews that included each primary study on the prevention of injuries in sports and exercise in general.



Primary Studies on the Prevention of Injuries in Soccer Players

Figure S2. Number of systematic reviews that included each primary study on the topic of prevention of injuries in soccer players.

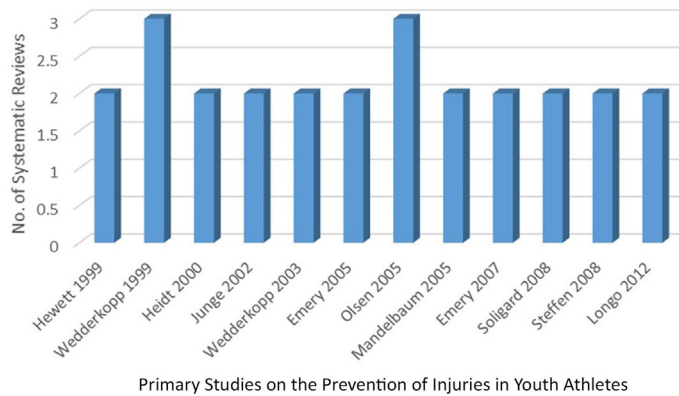


Figure S3. Number of systematic reviews that included each primary study on the topic of prevention of injuries in youth athletes.

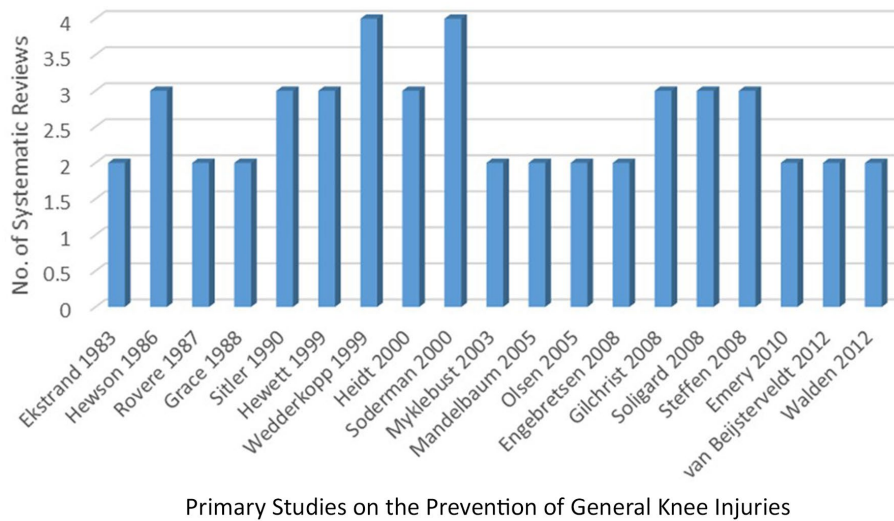


Figure S4. Number of systematic reviews that included each primary study on the prevention of general knee injuries.

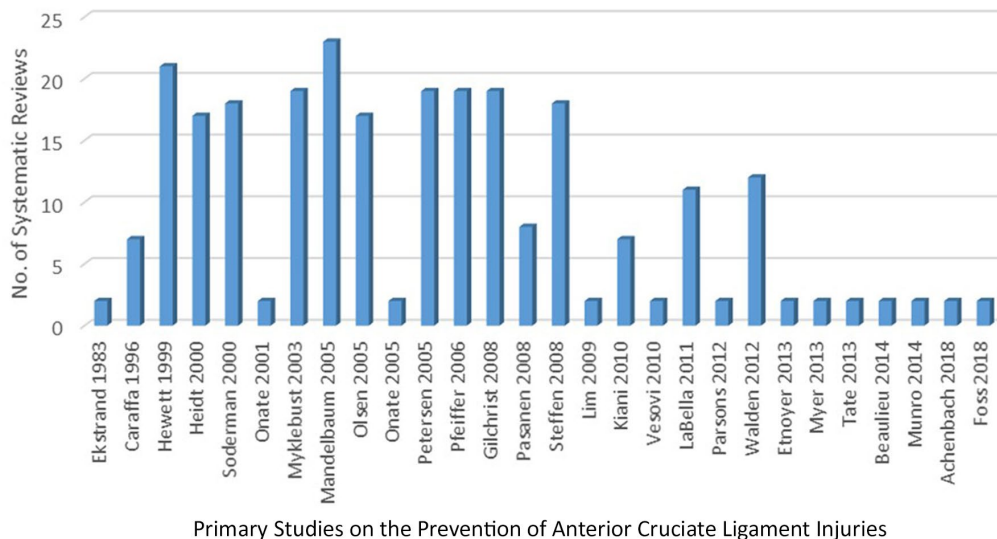


Figure S5. Number of systematic reviews that included each primary study on the topic of prevention of anterior cruciate ligament injuries.

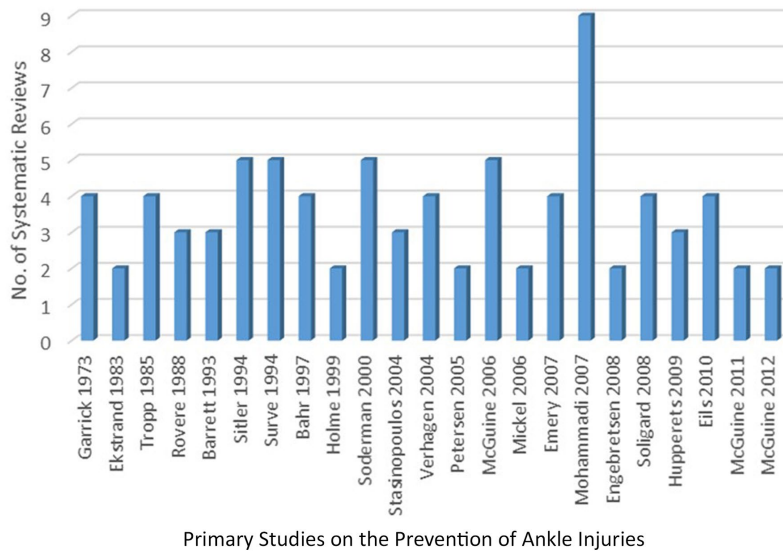


Figure S6. Number of systematic reviews that included each primary study on the prevention of ankle injuries.

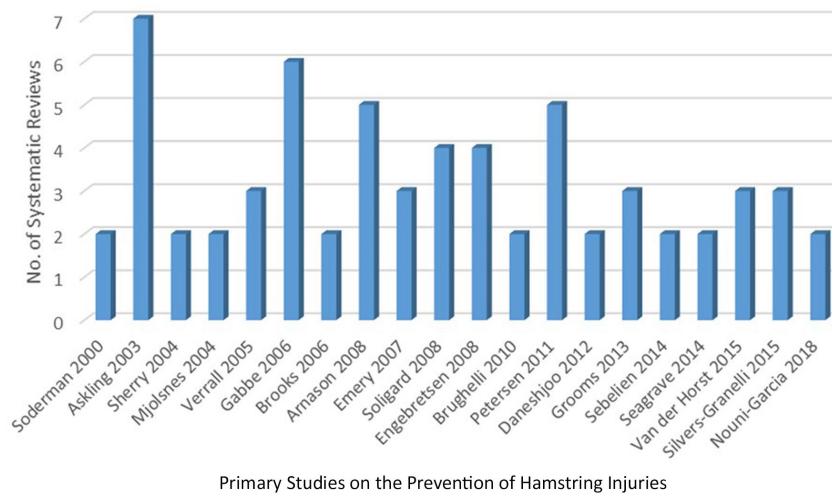


Figure S7. Number of systematic reviews that included each primary study on the prevention of hamstring injuries.

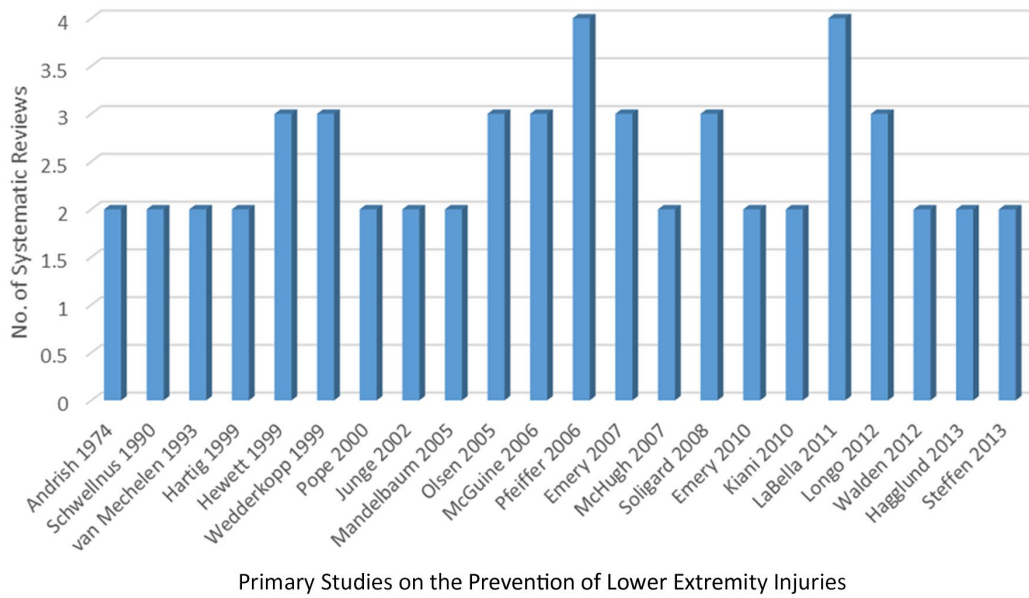


Figure S8. Number of systematic reviews that included each primary study on the prevention of lower extremity injuries.

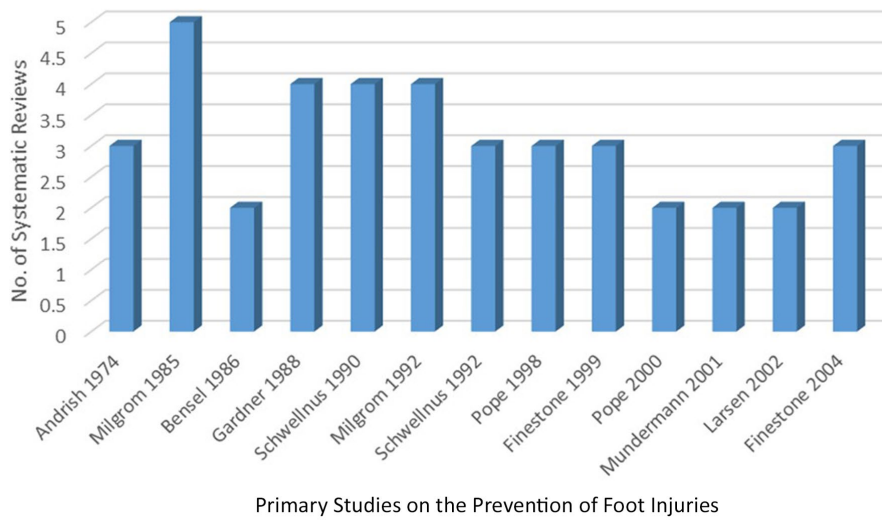


Figure S9. Number of systematic reviews that included each primary study on the prevention of foot injuries.

Table S1. Level of Evidence and AMSTAR-2 assessment by topic

Study	LOE	AMSTAR-2 Assessment															
		A Priori PICO	A Priori Review Methods	Selection Design	Literature Search	Study Selection in Duplicate	Data Extraction in Duplicate	Excluded Studies Described	Study Detail	ROB	Source of Funding	Statistical Combination Method	ROB in Meta-analysis	ROB in Results	Heterogeneity Explained	Publication Bias	Conflict of Interest
All Injuries- Sports and Exercise in General																	
Shrier 1999 ²⁰⁷	II	Yes	Partial Yes	No	No	No	No	No	Partial Yes								
Herbert 2002 ⁹⁴	II	Yes	Yes	No	Partial Yes	No	No	No	Partial Yes								
Weldon 2003 ²⁵⁸	II	Yes	Partial Yes	Yes	Yes	No	No	No	Yes								
Thacker 2004 ²³⁵	I	Yes	Yes	Yes	Yes	No	No	Partial Yes	Yes								
Fradkin 2006 ⁶⁹	I	Yes	No	No	Partial Yes	No	No	No	Partial Yes								
Aaltonen 2007 ¹	I	Yes	No	Yes	Partial Yes	No	Yes	No	Partial Yes								
Small 2008 ²¹²	I	Yes	Partial Yes	Yes	Yes	No	No	Partial Yes	Yes								
Hubscher 2010 ¹⁰⁷	I	Yes	No	No	Partial Yes	Yes	Yes	Yes	Yes								
Ernst 2011 ⁶⁰	II	Yes	No	No	Partial Yes	No	Yes	No	Yes								
Lauersen 2014 ¹²⁸	I	Yes	Yes	No	Partial Yes	Yes	Yes	No	Yes								
Leppanen 2014 ¹²⁹	I	Yes	No	No	Partial Yes	No	Yes	No	No								
Lewis 2014 ¹³⁰	II	No	No	No	Partial Yes	No	Yes	No	No								
Tranaeus 2015 ²³⁹	I	Yes	Partial Yes	Yes	Yes	No	No	No	Yes								
Behm 2016 ²⁴	II	Yes	No	No	Partial Yes	Yes	Yes	No	No								
Salam 2016 ¹⁹⁴	I	Yes	Partial Yes	Yes	Yes	Yes	Yes	Partial Yes	Yes								
Brachman 2017 ³⁰	II	Yes	No	No	Partial Yes	Yes	No	No	No								
Gledhill 2018 ⁷⁷	II	Yes	Partial Yes	No	Partial Yes	Yes	Yes	No	Partial Yes								
Lauersen 2018 ¹²⁷	I	Yes	Yes	No	Partial Yes	Yes	Yes	No	Partial Yes								
Smyth 2019 ²¹⁴	I	Yes	Partial Yes	Yes	Yes	Yes	Yes	Partial Yes	Yes								
Li 2020 ¹³¹	I	Yes	Yes	No	Yes	Yes	Yes	Partial Yes	Yes								
All Injuries- Soccer																	
Kirkendall 2010 ¹²³	II	Yes	No	No	No	No	No	No	Yes								
Van Beijsterveldt 2013 ²⁴³	I	Yes	Partial Yes	Yes	Yes	Yes	Yes	Yes	Yes								
Barengo 2014 ²¹	II	Yes	No	No	Partial Yes	Yes	No	No	Yes								
Porter 2015 ¹⁸²	I	Yes	Yes	Yes	Yes	Yes	Yes	Partial Yes	Yes								
Al Attar 2016 ⁴	II	Yes	No	No	Partial Yes	Yes	Yes	No	Yes								
Gomes 2017 ⁷⁹	I	Yes	No	No	Partial Yes	Yes	Yes	No	Partial Yes								
Sadigursky 2017 ¹⁹²	I	Yes	Partial Yes	Yes	Yes	No	No	Partial Yes	Yes								
Thorburg 2017 ²³⁸	I	Yes	Yes	Yes	Yes	Yes	Yes	Partial Yes	Yes								
Kilic 2018 ¹¹⁹	I	Yes	No	No	No	Yes	Yes	No	Partial Yes								
Slimani 2018 ²¹¹	II	Yes	Partial Yes	No	Yes	No	Yes	Partial Yes	Yes								
Al Attar 2019 ⁵	II	Yes	Yes	Yes	Partial Yes	Yes	No	No	Yes								
Crossley 2020 ⁴³	II	Yes	Yes	No	Partial Yes	Yes	Yes	No	Yes								
Fanchini 2020 ⁶⁴	II	Yes	Partial Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No MA	No MA	Yes	No	No MA	Yes
All Injuries- Ice Hockey																	
Cusimano 2013 ⁴⁵	II	Yes	No	Yes	Partial Yes	No	Yes	Yes	Yes	Yes	No	No MA	No MA	No	No	No MA	Yes
All Injuries- Dance																	
Hincapie 2008 ¹⁰³	II	No	No	Yes	Partial Yes	Yes	Yes	No	Yes	No	No	No MA	No MA	No	No	No MA	No
All Injuries- Volleyball																	
Kilic 2017 ¹²⁰	II	Yes	No	No	Partial Yes	Yes	Yes	No	Yes	Yes	No	No MA	No MA	Yes	No	No MA	Yes
All Injuries- Basketball																	
Kilic 2018 ¹²¹	II	Yes	No	No	Partial Yes	Yes	Yes	No	Yes	Yes	No	No MA	No MA	No	No	No MA	Yes
All Injuries- Tackle Collision Sports																	
Sewry 2017 ²⁰²	I	Yes	Partial Yes	Yes	Yes	Yes	Yes	Partial Yes	Yes	Yes	No	No MA	No MA	No	Yes	No	Yes
All Injuries- Climbing																	
Woollings 2015 ²⁶⁰	II	Yes	Partial Yes	No	Yes	Yes	No	Partial Yes	Partial Yes	Yes	No	No MA	No MA	Yes	No	No MA	Yes

Study	LOE	AMSTAR-2 Assessment															
		A Priori PICO	A Priori Review Methods	Selection Design	Literature Search	Study Selection in Duplicate	Data Extraction in Duplicate	Excluded Studies Described	Study Detail	ROB	Source of Funding	Statistical Combination Method	ROB in Meta-analysis	ROB in Results	Heterogeneity Explained	Publication Bias	Conflict of Interest
All Injuries- Youth																	
Abernethy 2007 ²	II	Yes	Partial Yes	No	Partial Yes	No	Yes	No	Yes	Yes	No	No MA	No MA	Yes	No	No MA	Yes
Rossler 2014 ¹⁸⁹	I	Yes	No	Yes	Partial Yes	Yes	Yes	Partial Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Soomro 2016 ²¹⁷	I	Yes	Yes	Yes	Yes	Yes	No	Partial Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Carder 2020 ³⁷	II	Yes	No	No	Partial Yes	No	No	No	Yes	Partial Yes	No	Yes	No	Yes	Yes	No	Yes
Anatomic Site- General Knee																	
Thacker 2003 ²³⁶	II	Yes	Partial Yes	Yes	Yes	No	Yes	Partial Yes	Partial Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Hewett 2005 ^{99,A}	II	Yes	No	No	No	No	No	No	Yes	No	No	No MA	No MA	No	No	No MA	Yes
Pietrosimone 2008 ¹⁷⁹	II	Yes	Partial Yes	No	Yes	No	No	No	Yes	Yes	No	No MA	No MA	No	No	No MA	No
Salata 2010 ¹⁹⁵	II	Yes	Partial Yes	Yes	Partial Yes	No	No	No	No	No	No	No MA	No MA	Yes	No	No MA	Yes
Grimm 2013 ^{85,A}	I	Yes	No	Yes	Partial Yes	Yes	Yes	No	Partial Yes	Yes	No	No MA	No MA	Yes	No	No MA	Yes
Ter Stege 2014 ²³³	II	Yes	Partial Yes	No	Yes	Yes	No	Partial Yes	Yes	Yes	No	No MA	No MA	No	No	No MA	Yes
Donnell-Fink 2015 ⁵¹	II	Yes	No	No	Partial Yes	Yes	Yes	No	Partial Yes	Partial Yes	No	Yes	No	No	Yes	Yes	Yes
Grimm 2015 ⁸⁴	I	Yes	No	Yes	Partial Yes	Yes	Yes	No	Partial Yes	Yes	No	Yes	No	No	Yes	Yes	Yes
Anatomic Site- Anterior Cruciate Ligament																	
Olsen 2004 ¹⁶³	II	Yes	Partial Yes	No	Yes	Yes	Yes	Partial Yes	Yes	Partial Yes	No	No MA	No MA	No	No	No MA	No
Hewett 2005 ^{99,A}	II	Yes	No	No	No	No	No	No	Yes	No	No	No MA	No MA	No	No	No MA	Yes
Grindstaff 2006 ⁸⁶	II	Yes	No	No	Partial Yes	No	No	No	Yes	Yes	No	Yes	No	No	No	No	No
Hewett 2006 ⁹⁶	II	Yes	No	No	No	No	No	No	Yes	No	No	Yes	No	No	Yes	No	Yes
Padua 2006 ¹⁶⁸	II	Yes	Partial Yes	No	Yes	No	No	No	Yes	No	No	No MA	No MA	No	No	No MA	No
Yoo 2010 ²⁶²	II	Yes	Partial Yes	No	Yes	Yes	No	No	Yes	No	No	Yes	No	No	Yes	Yes	No
Noyes 2012 ¹⁶¹	II	Yes	No	No	Yes	No	No	Partial Yes	Partial Yes	No	No	No MA	No MA	No	No	No MA	No
Paskiewicz 2012 ¹⁷¹	I	Yes	Partial Yes	Yes	Yes	No	No	Partial Yes	Yes	No	No	No MA	No MA	No	No	No MA	No
Sadoghi 2012 ¹⁹³	I	Yes	Partial Yes	Yes	Yes	Yes	Yes	Partial Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Stojanovic 2012 ²²³	II	Yes	Partial Yes	Yes	Yes	Yes	No	Partial Yes	Partial Yes	Yes	No	No MA	No MA	Yes	Yes	No MA	Yes
Sugimoto 2012 ²²⁸	II	Yes	Partial Yes	Yes	Yes	No	No	Partial Yes	Yes	No	No	No MA	No MA	No	No	No MA	Yes
Sugimoto 2012 ²²⁵	II	Yes	Partial Yes	Yes	Yes	No	No	Partial Yes	Yes	Yes	No	No MA	No MA	No	No	No MA	Yes
Gagnier 2013 ⁷²	II	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Grimm 2013 ^{85,A}	I	Yes	No	Yes	Partial Yes	Yes	Yes	No	Partial Yes	Yes	No	No MA	No MA	Yes	No	No MA	Yes
Myer 2013 ¹⁵⁵	I	Yes	Partial Yes	No	Yes	No	No	Partial Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes
Alentorn-Geli 2014 ⁷	II	Yes	No	No	Partial Yes	Yes	Yes	No	Yes	Yes	No	No MA	No MA	Yes	Yes	No MA	No
Chang 2014 ³⁸	II	Yes	No	No	Partial Yes	No	No	No	Partial Yes	No	No	No MA	No MA	No	No	No MA	Yes
Michalidis 2014 ¹⁴⁴	I	Yes	Partial Yes	No	Yes	No	No	Partial Yes	Yes	Partial Yes	No	No MA	No MA	Yes	No	No MA	Yes
Noyes 2014 ¹⁶⁰	II	Yes	No	Yes	Yes	No	No	Partial Yes	Partial Yes	No	No	No	No	No	No	No	Yes
Ramirez 2014 ¹⁸⁴	I	Yes	Partial Yes	No	Yes	Yes	No	Partial Yes	Yes	No	No	Yes	No	No	Yes	Yes	Yes
Sugimoto 2014 ²²⁶	I	Yes	Partial Yes	Yes	Yes	Yes	No	Partial Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes
Benjaminse 2015 ²⁶	II	Yes	No	No	Partial Yes	Yes	No	No	Partial Yes	Yes	No	No MA	No MA	No	Yes	No MA	Yes
Stevenson 2015 ²²²	I	Yes	Partial Yes	Yes	Yes	Yes	Yes	Partial Yes	Yes	Yes	No	No MA	No MA	Yes	No	No MA	No
Sugimoto 2015 ²²⁷	I	Yes	Partial Yes	Yes	Yes	Yes	No	Partial Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes
Taylor 2015 ²³²	I	Yes	No	Yes	Yes	Yes	Yes	Partial Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Monajati 2016 ^{152, B}	I	Yes	Partial Yes	No	Yes	Yes	No	Partial Yes	Yes	Yes	No	No MA	No MA	Yes	No	No MA	Yes
Sugimoto 2016 ²²⁴	I	Yes	Yes	Yes	Yes	No	Yes	Partial Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Pfile 2017 ¹⁷⁸	II	Yes	Partial Yes	No	Yes	No	No	Partial Yes	Yes	Yes	No	Yes	No	No	No	No	No
Armitano 2018 ⁴²	II	Yes	No	No	Partial Yes	No	No	No	Partial Yes	Yes	No	No MA	No MA	No	No	No MA	No
Arundale 2018 ⁴⁵	II	Yes	No	No	Partial Yes	Yes	Yes	No	Yes	Partial Yes	No	No	Yes	Yes	No	No	Yes
Webster 2018 ²⁵⁴	II	Yes	Partial Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	No	No	No
Neilson 2019 ¹⁵⁷	I	Yes	Partial Yes	Yes	Yes	Yes	No	Partial Yes	Partial Yes	Partial Yes	No	Yes	Yes	Yes	Yes	No	Yes
Petushkek 2019 ¹⁷⁶	I	Yes	Yes	Yes	Yes	Yes	Yes	Partial Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes
Huang 2020 ¹⁰⁶	I	Yes	No	Yes	Partial Yes	Yes	No	No	Partial Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes

Study	LOE	AMSTAR-2 Assessment															
		A Priori PICO	A Priori Review Methods	Selection Design	Literature Search	Study Selection in Duplicate	Data Extraction in Duplicate	Excluded Studies Described	Study Detail	ROB	Source of Funding	Statistical Combination Method	ROB in Meta-analysis	ROB in Results	Heterogeneity Explained	Publication Bias	Conflict of Interest
Anatomic Site- Ankle																	
Thacker 1999 ²³⁷	II	Yes	Partial Yes	Yes	Yes	No	Yes	Partial Yes	Yes	Yes	No	No MA	No MA	Yes	No	No MA	Yes
Verhagen 2000 ²⁵⁰	II	Yes	Partial Yes	Yes	Yes	No	No	No	Yes	Yes	No	No MA	No MA	Yes	No	No MA	No
McKeon 2008 ¹⁴³	II	Yes	Partial Yes	No	Partial Yes	No	No	No	Yes	Partial Yes	No	No	No	No	No	No	No
Dizon 2010 ⁴⁹	I	Yes	No	Yes	Yes	No	Yes	No	Partial Yes	Yes	No	Yes	No	No	Yes	No	Yes
Verhagen 2010 ²⁴⁹	II	Yes	Partial Yes	Yes	Yes	No	No	No	Yes	Yes	No	No MA	No MA	No	No	No MA	Yes
Schiffan 2015 ¹⁹⁷	I	Yes	Yes	Yes	Yes	Yes	Yes	Partial Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes
Grimm 2016 ⁶³	I	Yes	No	Yes	Partial Yes	Yes	Yes	No	Partial Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Doherty 2017 ⁵⁰	II	No	No	Yes	Partial Yes	No	No	No	Partial Yes	No	No	Yes	Yes	No	Yes	No	Yes
Kalirathinam 2017 ¹¹⁶	I	Yes	No	No	Partial Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	Yes	No	Yes
Barelds 2018 ²⁰	I	Yes	No	Yes	Partial Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Bellows 2018 ²⁵	I	Yes	No	No	Partial Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	No	No	Yes
Burger 2018 ³⁴	I	Yes	No	No	Partial Yes	Yes	Yes	Yes	Yes	Partial Yes	No	Yes	Yes	Yes	Yes	No	Yes
De Vasconcelos 2018 ⁴⁷	I	Yes	Yes	No	Partial Yes	Yes	Yes	No	Yes	Partial Yes	No	Yes	Yes	Yes	Yes	No	Yes
Caldemeyer 2020 ³⁵	II	Yes	No	No	Partial Yes	No	No	No	Yes	Partial Yes	No	No MA	No MA	No	Yes	No	Yes
Anatomic Site- Hamstring																	
Hibbert 2008 ¹⁰¹	II	Yes	No	No	Partial Yes	Yes	Yes	No	Yes	Yes	No	No MA	No MA	No	No	No MA	No
Prior 2009 ¹⁸³	I	Yes	Partial Yes	Yes	Partial Yes	Yes	Yes	No	Partial Yes	No	No	No MA	No MA	No	No	No	Yes
Goldman 2010 ⁷⁸	I	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No MA	No MA	Yes	Yes	No MA	No
Rogan 2013 ¹⁸⁶	II	Yes	Partial Yes	No	Yes	Yes	Yes	Partial Yes	Yes	Yes	No	No MA	No MA	Yes	Yes	No MA	Yes
Goode 2015 ⁸⁰	I	Yes	No	No	Partial Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes
Michalis 2016 ¹⁴⁵	I	Yes	Partial Yes	Yes	Partial Yes	No	No	Partial Yes	Yes	Yes	No	No MA	No MA	No	No	No MA	No
Monajati 2016 ^{152,8}	I	Yes	Partial Yes	No	Yes	Yes	No	Partial Yes	Yes	Yes	No	No MA	No MA	Yes	No	No MA	Yes
Al Attar 2017 ⁶	II	Yes	Yes	No	Partial Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	No	No	Yes	Yes
Shadle 2017 ²⁰³	II	Yes	Partial Yes	Yes	Partial Yes	No	No	Partial Yes	Yes	No	No	No MA	No MA	No	No	No	No
Van Dyk 2019 ²⁴⁵	I	Yes	Partial Yes	Yes	Yes	Yes	Yes	Partial Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes
Vatovec 2019 ²⁴⁷	II	Yes	Partial Yes	Yes	Yes	Yes	No	Partial Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes
Anatomic Site- Lower Extremity																	
Yeung 2001 ²⁶¹	II	Yes	Partial Yes	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes
Thacker 2002 ²³⁴	II	Yes	Partial Yes	No	Yes	No	No	No	Yes	Yes	No	No MA	No MA	Yes	No	No MA	No
McGuine 2006 ¹³⁸	II	Yes	Partial Yes	No	Partial Yes	No	No	Partial Yes	Partial Yes	No	No	No MA	No MA	No	No	No MA	No
Herman 2012 ⁹⁵	II	No	No	No	Partial Yes	No	No	Yes	Yes	Yes	No	No MA	No MA	Yes	Yes	No MA	Yes
Andrew 2013 ¹⁰	II	Yes	No	Yes	Yes	No	Yes	No	No	Yes	No	No MA	No MA	Yes	No	No MA	Yes
Emery 2015 ⁵⁸	II	Yes	No	Yes	Partial Yes	Yes	No	No	No	Yes	No	Yes	Yes	No	Yes	No	Yes
McCall 2015 ¹³⁷	I	Yes	Partial Yes	No	Yes	Yes	No	Partial Yes	Partial Yes	Yes	No	No MA	No MA	No	No	No MA	Yes
Taylor 2015 ²³¹	I	Yes	Yes	Yes	Yes	No	No	Partial Yes	Partial Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Steib 2017 ²²¹	I	Yes	Partial Yes	Yes	Yes	No	Yes	Partial Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Brunner 2019 ³³	I	Yes	Yes	Yes	Partial Yes	Yes	Yes	Yes	No	No	No	No MA	No MA	Yes	No	No MA	Yes
Anatomic Site- Foot																	
Gillespie 2000 ⁷⁶	I	Yes	Partial Yes	No	Partial Yes	No	Yes	Yes	Partial Yes	Partial Yes	No	Yes	No	Yes	Yes	No	Yes
Jones 2002 ¹¹⁴	II	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No	No MA	No MA	No	No	No MA	No
Rome 2005 ¹⁸⁷	I	Yes	Yes	Yes	Yes	Yes	Yes	Partial Yes	Partial Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Shaffer 2006 ²⁰⁴	II	Yes	Partial Yes	No	Partial Yes	No	No	No	No	Partial Yes	No	No MA	No MA	No	No	No MA	No
Peters 2016 ¹⁷³	II	Yes	Partial Yes	No	Yes	No	No	Partial Yes	Yes	No	No	No MA	No MA	No	No	No MA	No
Bonnano 2017 ²⁹	I	Yes	No	Yes	Partial Yes	Yes	No	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes
Anatomic Site- Groin																	
Esteve 2015 ⁶²	I	Yes	Yes	No	Partial Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes
Charlton 2017 ³⁹	II	Yes	Partial Yes	No	Partial Yes	Yes	Yes	No	Yes	Yes	No	No MA	No MA	Yes	Yes	No MA	Yes

Study	LOE	AMSTAR-2 Assessment															
		A Priori PICO	A Priori Review Methods	Selection Design	Literature Search	Study Selection in Duplicate	Data Extraction in Duplicate	Excluded Studies Described	Study Detail	ROB	Source of Funding	Statistical Combination Method	ROB in Meta-analysis	ROB in Results	Heterogeneity Explained	Publication Bias	Conflict of Interest
Anatomic Site- Shoulder																	
Asker 2018 ¹⁶	II	Yes	Yes	No	Partial Yes	Yes	Yes	Yes	No	Partial Yes	No	No MA	No MA	Yes	Yes	No MA	Yes
Anatomic Site- Wrist																	
Russell 2007 ¹⁹¹	I	Yes	Yes	Yes	Yes	Yes	No	Partial Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kim 2011 ¹²²	II	Yes	No	No	Partial Yes	No	No	No	Partial Yes	No	No	No MA	No MA	No	No	No MA	Yes
Anatomic Site- Elbow																	
Deal 2020 ⁴⁸	II	Yes	No	No	No	Yes	No	No	No	No	No	No MA	No MA	No	No	No MA	Yes

AMSTAR-2, A Measurement Tool to Assess systematic Reviews; LOE, level of evidence; MA, meta-analysis; PICO, Population, Intervention, Comparator Group, Outcome; ROB, risk of bias.

^AStudy covered both general knee and ACL topics, so was included under both topics.

^BStudy covered both ACL and hamstring topics, so was included under both topics.

Table S2. Overlapping Systematic Reviews and Meta-Analyses Pertaining to Prevention of All Injuries in Sports and Exercise in General*

Overlapping Studies	Included Systematic Reviews and Meta-Analyses																		
	Shrier 1999 ²⁰⁷	Herbert 2002 ⁹⁴	Weldon 2003 ²⁵⁸	Thacker 2004 ²³⁵	Fradkin 2006 ⁶⁹	Aaltonen 2007 ¹	Small 2008 ²¹²	Hubscher 2010 ¹⁰⁷	Lauersen 2014 ¹²⁸	Leppanen 2014 ¹²⁹	Lewis 2014 ¹³⁰	Tranaeus 2015 ²³⁹	Behm 2016 ²⁴	Salam 2016 ¹⁹⁴	Brachman 2017 ³⁰	Gledhill 2018 ⁷⁷	Lauersen 2018 ¹²⁷	Smyth 2019 ²¹⁴	Li 2020 ¹³¹
Ekstrand 1983 ⁵⁴	√		√			√				√			√						
Milgrom 1985 ¹⁴⁸						√				√									
Smith 1985 ²¹³						√				√									
Tropp 1985 ²⁴¹						√		√		√									
High 1989 ¹⁰²		√											√						
Schwellnus 1990 ¹⁹⁹						√				√									
Sitler 1990 ²⁰⁹						√				√									
Bixler 1992 ²⁸			√	√	√		√												
Milgrom 1992 ¹⁴⁷						√				√									
Barrett 1993 ²²						√				√									
Van Mechelen 1993 ²⁴⁶	√		√		√	√	√			√			√						
Sitler 1994 ²¹⁰						√				√									
Surve 1994 ²²⁹						√				√									
Gulick 1996 ⁸⁹		√											√						
Kerr 1996 ¹¹⁷												√				√			√
Wester 1996 ²⁵⁹								√		√									
Amoroso 1998 ⁸						√				√									
Jlrgenson 1998 ¹¹¹						√				√									
Pope 1998 ¹⁸⁰		√	√	√		√	√		√	√			√						
Cross 1999 ⁴²			√	√			√												
Finestone 1999 ⁶⁶						√				√									
Hartig 1999 ⁹²			√	√			√												
Johansson 1999 ¹¹²		√											√						
Wedderkopp 1999 ²⁵⁶					√	√		√	√	√				√					
Heidt 2000 ⁹³						√		√	√	√									
Soderman 2000 ²¹⁵						√		√	√	√				√	√				
Pope 2000 ¹⁸¹		√	√	√	√	√	√		√	√	√		√						
Ronning 2001 ¹⁸⁸						√				√									
Junge 2002 ¹¹⁵														√				√	
Machold 2002 ¹³⁴						√				√									
Askling 2003 ¹⁷									√	√									
Perna 2003 ¹⁷²												√				√			√
Wedderkopp 2003 ²⁵⁵						√		√		√									
Kolt 2004 ¹²⁴																√			√
Verhagen 2004 ²⁴⁸						√		√		√					√				
Arnason 2005 ¹⁴						√				√						√			√
Barbic 2005 ¹⁹						√				√				√				√	
Emery 2005 ⁵⁵						√		√	√	√									
Finch 2005 ⁶⁵						√								√					
Johnson 2005 ¹¹³												√						√	√
Maddison 2005 ¹³⁵												√				√			√
Mandelbaum 2005 ¹³⁶								√							√				
Olsen 2005 ¹⁶⁴					√	√		√		√				√			√		
Petersen 2005 ¹⁷⁵								√							√				
McGuine 2006 ¹⁴¹										√				√					
Pfeiffer 2006 ¹⁷⁷								√						√					
Scase 2006 ¹⁹⁶														√				√	
Cumps 2007 ⁴⁴								√							√				
Emery 2007 ⁵⁷								√		√	√			√					
Mohammadi 2007 ¹⁵⁰								√		√									
Noh 2007 ¹⁵⁸												√				√			

Overlapping Studies	Included Systematic Reviews and Meta-Analyses																			
	Shrier 1999 ²⁰⁷	Herbert 2002 ⁹⁴	Weldon 2003 ²⁵⁸	Thacker 2004 ²³⁵	Fradkin 2006 ⁶⁹	Aaltonen 2007 ¹	Small 2008 ²¹²	Hubscher 2010 ¹⁰⁷	Lauersen 2014 ¹²⁸	Leppanen 2014 ¹²⁹	Lewis 2014 ¹³⁰	Tranaeus 2015 ²³⁹	Behm 2016 ²⁴	Salam 2016 ¹⁹⁴	Brachman 2017 ³⁰	Gledhill 2018 ⁷⁷	Lauersen 2018 ¹²⁷	Smyth 2019 ²¹⁴	Li 2020 ¹³¹	
Engebretsen 2008 ⁵⁹								√		√										
Gilchrist 2008 ⁷⁵								√	√	√									√	
Pasanen 2008 ¹⁷⁰								√	√	√										
Steffen 2008 ²²⁰								√		√				√	√					
Soligard 2008 ²¹⁶									√	√	√				√					
Eils 2010 ⁵³									√	√					√					
Emery 2010 ⁵⁶									√	√				√						
Jamtvedt 2010 ¹¹⁰									√	√	√									
Coppack 2011 ⁴¹									√								√			
LaBella 2011 ¹²⁵									√	√				√						
Petersen 2011 ¹⁷⁴									√	√							√			
Edvardsson 2012 ⁵²												√				√				√
Longo 2012 ¹³³									√	√										
McGuine 2012 ¹⁴⁰										√				√						
Van Beijsterveldt 2012 ²⁴²									√	√										
Walden 2012 ²⁵³									√	√				√			√			
Ivarsson 2015 ¹⁰⁹																		√		√
Tranaeus 2015 ²⁴⁰																√				√
Zouita 2016 ²⁶³																	√	√	√	
Olmedilla-Zafra 2017 ¹⁶²																√				√

*One study⁶⁰ that covered all injuries in sports and exercise in general did not include any overlapping studies and thus was not included.

Table S3. Overlapping Systematic Reviews and Meta-Analyses Pertaining to Prevention of All Injuries in Soccer Players*

Overlapping Studies	Included Systematic Reviews and Meta-Analyses										
	Kirkendall 2010 ¹²³	Van Beijsterveldt 2013 ²⁴³	Barengo 2014 ²¹	Porter 2015 ¹⁸²	Al Attar 2016 ⁴	Gomes 2017 ⁷⁹	Sadigursky 2017 ¹⁹²	Thorburg 2017 ²³⁸	Kilic 2018 ¹¹⁹	Crossley 2020 ⁴³	Fanchini 2020 ⁶⁴
Ekstrand 1983 ⁵⁴	√								√		
Heidt 2000 ⁹³		√		√						√	
Soderman 2000 ²¹⁵		√		√					√	√	
Junge 2002 ¹¹⁵	√	√			√						
Askling 2003 ¹⁷	√			√							
Mohammadi 2007 ¹⁵⁰	√			√							
Engebretsen 2008 ⁵⁹	√			√					√		√
Fredberg 2008 ⁷⁰	√			√							
Gilchrist 2008 ⁷⁵									√	√	
Soligard 2008 ²¹⁶	√	√	√		√	√	√	√		√	
Steffen 2008 ²²⁰	√	√	√		√	√	√	√		√	
Emery 2010 ⁵⁶		√								√	
Holmich 2010 ¹⁰⁵	√			√					√		
Van Beijsterveldt 2012 ²⁴²				√	√	√		√	√		
Grooms 2013 ⁸⁷			√		√				√		
Steffen 2013 ²¹⁹			√		√	√	√				
Hammes 2015 ⁹¹			√		√		√	√			
Owoeye 2014 ¹⁶⁷					√	√	√	√			
Espinosa 2015 ⁶¹										√	√
Silvers-Granelli 2015 ²⁰⁸						√	√	√	√		

*Two studies^{5,211} of all injuries in soccer players did not have any overlapping studies and thus were not included.

Table S4. Overlapping Systematic Reviews and Meta-Analyses Pertaining to Prevention of All Injuries in Youth Athletes

Overlapping Studies	Included Systematic Reviews and Meta-Analyses		
	Abernethy 2007 ²	Rosler 2014 ¹⁸⁹	Soomro 2016 ²¹⁷
Hewett 1999 ⁹⁷	√	√	
Wedderkopp 1999 ²⁵⁶	√	√	√
Heidt 2000 ⁹³	√	√	
Junge 2002 ¹¹⁵		√	√
Wedderkopp 2003 ²⁵⁵	√		√
Emery 2005 ⁵⁵	√	√	
Olsen 2005 ¹⁶⁴	√	√	√
Mandelbaum 2005 ¹³⁶	√	√	
Emery 2007 ⁵⁷		√	√
Soligard 2008 ²¹⁶		√	√
Steffen 2008 ²²⁰		√	√
Longo 2012 ¹³³		√	√

Table S5. Overlapping Systematic Reviews and Meta-Analyses Pertaining to Prevention of General Knee Injuries

Overlapping Studies	Included Systematic Reviews and Meta-Analyses							
	Thacker 2003 ²³⁶	Hewett 2005 ⁹⁹	Pietrosimone 2008 ¹⁷⁹	Salata 2010 ¹⁹⁵	Grimm 2013 ⁸⁵	Ter Stege 2014 ²³³	Donnell-Fink 2015 ⁵¹	Grimm 2015 ⁸⁴
Ekstrand 1983 ⁵⁴					√			√
Hewson 1986 ¹⁰⁰	√		√	√				
Rovere 1987 ¹⁹⁰	√			√				
Grace 1988 ⁸²	√			√				
Sitler 1990 ²⁰⁹	√		√	√				
Hewett 1999 ⁹⁷	√	√					√	
Wedderkopp 1999 ²⁵⁶	√	√			√		√	
Heidt 2000 ⁹³	√	√					√	
Soderman 2000 ²¹⁵		√			√		√	√
Myklebust 2003 ¹⁵⁶		√					√	
Mandelbaum 2005 ¹³⁶		√					√	
Olsen 2005 ¹⁶⁴					√		√	
Engebretsen 2008 ⁵⁹					√			√
Gilchrist 2008 ⁷⁵					√		√	√
Soligard 2008 ²¹⁶					√		√	√
Steffen 2008 ²²⁰					√		√	√
Emery 2010 ⁵⁶					√		√	
Van Beijsterveldt 2012 ²⁴²					√			√
Walden 2012 ²⁵³							√	√

Table S6. Overlapping Systematic Reviews and Meta-Analyses Pertaining to Prevention of Anterior Cruciate Ligament Injuries*

Overlapping Studies	Included Systematic Reviews and Meta-Analyses																
	Olsen 2004 ¹⁶³	Hewett 2005 ⁹⁹	Hewett 2006 ⁹⁸	Grindstaff 2006 ⁸⁶	Padua 2006 ¹⁶⁸	Yoo 2010 ²⁶²	Noyes 2012 ¹⁶¹	Paszkiwicz 2012 ¹⁷¹	Sadoghi 2012 ¹⁹³	Stojanovic 2012 ²²³	Sugimoto 2012 ²²⁵	Sugimoto 2012 ²²⁸	Gagnier 2013 ⁷²	Grimm 2013 ⁸⁵	Myer 2013 ¹⁵⁵	Alentorn-Geli 2014 ⁷	Chang 2014 ³⁸
Ekstrand 1983 ⁵⁴	√													√			
Caraffa 1996 ³⁶	√				√					√			√			√	
Hewett 1999 ⁹⁷		√	√	√	√	√	√		√	√	√	√	√		√		
Wedderkopp 1999 ²⁵⁶		√												√			
Heidt 2000 ⁹³		√	√		√	√			√	√	√	√	√		√		
Soderman 2000 ²¹⁵		√	√		√	√				√	√	√	√	√	√		
Onate 2001 ¹⁶⁶																	
Myklebust 2003 ¹⁵⁶		√	√	√	√	√	√			√	√	√	√		√		
Mandelbaum 2005 ¹³⁶		√	√	√	√	√	√	√	√	√		√	√		√		√
Olsen 2005 ¹⁶⁴				√	√				√			√	√	√	√		
Onate 2005 ¹⁶⁵																	
Petersen 2005 ¹⁷⁵			√	√		√			√	√		√	√		√		√
Pfeiffer 2006 ¹⁷⁷						√	√	√	√	√		√	√		√		
Gilchrist 2008 ⁷⁵							√		√	√		√	√	√	√		√
Pasanen 2008 ¹⁷⁰													√		√		
Steffen 2008 ²²⁰							√	√			√	√	√	√	√		
Lim 2009 ¹³²							√										
Kiani 2010 ¹¹⁸											√	√	√				
Vescovi 2010 ²⁵²							√										
LaBella 2011 ¹²⁵												√			√		
Parsons 2012 ¹⁶⁹																	
Walden 2012 ²⁵³															√		
Etnoyer 2013 ⁶³																	
Myer 2013 ¹⁵⁵																	
Tate 2013 ²³⁰																	
Beaulieu 2014 ²³																	
Munro 2014 ¹⁵⁴																	
Achenbach 2018 ³																	
Foss 2018 ⁶⁸																	

*Two studies^{26,254} of ACL injuries did not have any overlapping studies and thus were not included.

Table S6 (continued). Overlapping Systematic Reviews and Meta-Analyses Pertaining to Prevention of Anterior Cruciate Ligament Injuries*

Overlapping Studies	Included Systematic Reviews and Meta-Analyses														
	Michaelidis 2014 ¹⁴⁴	Noyes 2014 ¹⁶⁰	Ramirez 2014 ¹⁸⁴	Sugimoto 2014 ²²⁶	Stevenson 2015 ²²²	Sugimoto 2015 ²²⁷	Taylor 2015 ²³²	Monajati 2016 ¹⁵²	Sugimoto 2016 ²²⁴	Pfile 2017 ¹⁷⁸	Armitano 2018 ¹²	Arundale 2018 ¹⁵	Neilson 2019 ¹⁵⁷	Petushek 2019 ¹⁷⁶	Huang 2020 ¹⁰⁶
Ekstrand 1983 ⁵⁴															
Caraffa 1996 ³⁶					√							√			
Hewett 1999 ⁹⁷	√	√	√		√	√	√		√	√		√		√	
Wedderkopp 1999 ²⁵⁶															
Heidt 2000 ⁹³	√		√	√	√	√	√		√					√	
Soderman 2000 ²¹⁵	√		√	√	√	√	√		√					√	√
Onate 2001 ¹⁶⁶											√		√		
Myklebust 2003 ¹⁵⁶	√			√	√	√	√		√	√		√		√	
Mandelbaum 2005 ¹³⁶	√	√	√	√	√	√	√		√	√		√		√	
Olsen 2005 ¹⁶⁴	√	√		√	√		√		√	√		√		√	√
Onate 2005 ¹⁶⁵											√		√		
Petersen 2005 ¹⁷⁵	√		√	√	√	√	√		√	√		√		√	
Pfeiffer 2006 ¹⁷⁷	√	√	√	√	√	√	√		√	√		√		√	
Gilchrist 2008 ⁷⁵	√		√	√	√	√	√		√	√		√		√	√
Pasanen 2008 ¹⁷⁰	√		√	√		√	√		√					√	
Steffen 2008 ²²⁰	√	√	√	√	√	√	√		√	√				√	√
Lim 2009 ²²⁰								√							
Kiani 2010 ¹¹⁸									√	√		√		√	
Vescovi 2010 ²⁵²												√			
LaBella 2011 ¹²⁵		√		√		√	√		√	√		√		√	√
Parsons 2012 ¹⁶⁹											√		√		
Walden 2012 ²⁵³	√	√	√	√		√	√		√	√		√		√	√
Etnoyer 2013 ⁶³											√		√		
Myer 2013 ¹⁵⁵											√		√		
Tate 2013 ²³⁰											√		√		
Beaulieu 2014 ²³											√		√		
Munro 2014 ¹⁵⁴											√		√		
Achenbach 2018 ³												√		√	
Foss 2018 ⁶⁸														√	√

*Two studies^{26,254} of ACL injuries did not have any overlapping studies and thus were not included.

Table S7. Overlapping Systematic Reviews and Meta-Analyses Pertaining to Prevention of Ankle Injuries*

Overlapping Studies	Included Systematic Reviews and Meta-Analyses													
	Thacker 1999 ²³⁷	Verhagen 2000 ²⁵⁰	McKeon 2008 ¹⁴³	Dizon 2010 ⁴⁹	Verhagen 2010 ²⁴⁹	Schiftan 2015 ¹⁹⁷	Grimm 2016 ⁸³	Doherty 2017 ⁵⁰	Kalirathinam 2017 ¹¹⁶	Barelds 2018 ²⁰	Burger 2018 ³⁴	De Vasconcelos 2018 ⁴⁷	Bellows 2018 ²⁵	Caldemeyer 2020 ³⁵
Garrick 1973 ⁷⁴	✓	✓		✓	✓									
Ekstrand 1983 ⁵⁴	✓						✓							
Tropp 1985 ²⁴¹	✓	✓			✓		✓							
Rovere 1988 ¹⁹⁰	✓	✓			✓									
Barrett 1993 ²²	✓	✓			✓									
Sitler 1994 ²¹⁰	✓	✓		✓	✓					✓				
Surve 1994 ²²⁹	✓	✓		✓	✓					✓				
Bahr 1997 ¹⁸	✓	✓	✓		✓									
Holme 1999 ¹⁰⁴			✓		✓									
Soderman 2000 ²¹⁵					✓	✓	✓				✓			✓
Stasinopoulos 2004 ²¹⁸				✓	✓						✓			
Verhagen 2004 ²⁴⁸			✓		✓	✓						✓		
Petersen 2005 ¹⁷⁵					✓									✓
McGuine 2006 ¹⁴¹			✓		✓	✓			✓				✓	
Mickel 2006 ¹⁴⁶				✓	✓									
Emery 2007 ⁵⁷					✓	✓			✓				✓	
Mohammadi 2007 ¹⁵⁰				✓	✓	✓	✓		✓	✓	✓	✓	✓	
Engbretsen 2008 ⁵⁹					✓		✓							
Soligard 2008 ²¹⁶					✓		✓		✓					✓
Hupperets 2009 ¹⁰⁸							✓					✓	✓	
Eils 2010 ⁵³							✓		✓			✓	✓	
McGuine 2011 ¹³⁹										✓			✓	
McGuine 2012 ¹⁴⁰										✓			✓	

*One study³³ on the topic of ankle injuries did not have overlapping studies and thus was not included.

Table S8. Overlapping Systematic Reviews and Meta-Analyses Pertaining to Prevention of Hamstring Injuries

Overlapping Studies	Included Systematic Reviews and Meta-Analyses										
	Hibbert 2008 ¹⁰¹	Prior 2009 ¹⁸³	Goldman 2010 ⁷⁸	Rogan 2013 ¹⁸⁶	Goode 2015 ⁸⁰	Michalis 2016 ¹⁴⁵	Monajati 2016 ¹⁵²	Al Attar 2017 ⁶	Shadle 2017 ²⁰³	Van Dyk 2019 ²⁴⁵	Vatovec 2019 ²⁴⁷
Soderman 2000 ²¹⁵			√								√
Askling 2003 ¹⁷	√	√	√		√	√			√		√
Sherry 2004 ²⁰⁶		√				√					
Mjolsnes 2004 ¹⁴⁹						√	√				
Verrall 2005 ²⁵¹		√		√							√
Gabbe 2006 ⁷¹	√	√	√		√	√				√	
Brooks 2006 ³¹	√										√
Arnason 2008 ¹³	√			√					√	√	√
Emery 2007 ⁵⁷			√			√					√
Soligard 2008 ²¹⁶						√		√		√	√
Engebretsen 2008 ⁵⁹			√		√			√		√	
Brughelli 2010 ³²						√	√				
Petersen 2011 ¹⁷⁴					√	√			√	√	√
Daneshjoo 2013 ⁴⁶						√	√				
Grooms 2013 ⁸⁷								√		√	√
Sebelien 2014 ²⁰¹										√	√
Seagrave 2014 ²⁰⁰										√	√
Van der Horst 2015 ²⁴⁴								√		√	√
Silvers-Granelli 2015 ²⁰⁸								√		√	√
Nouni-Garcia 2018 ¹⁵⁹										√	√

Table S9. Overlapping Systematic Reviews and Meta-Analyses Pertaining to Prevention of Lower Extremity Injuries

Overlapping Studies	Included Systematic Reviews and Meta-Analyses								
	Yeung 2001 ²⁶¹	Thacker 2002 ²³⁴	McGuine 2006 ¹⁴¹	Herman 2012 ⁹⁵	Andrew 2013 ¹⁰	Emery 2015 ⁵⁸	McCall 2015 ¹³⁷	Taylor 2015 ²³¹	Steib 2017 ²²¹
Andrish 1974 ¹¹	√	√							
Schwellnus 1990 ¹⁹⁹	√	√							
Van Mechelen 1993 ²⁴⁶	√				√				
Hartig 1999 ⁹²	√				√				
Hewett 1999 ⁹⁷			√			√			√
Wedderkopp 1999 ²⁵⁶			√			√			√
Pope 2000 ¹⁸¹	√				√				
Junge 2002 ¹¹⁵			√			√			
Mandelbaum 2005 ¹³⁶				√		√			
Olsen 2005 ¹⁶⁴			√			√			√
McGuine 2006 ¹⁴¹			√			√			√
Pfeiffer 2006 ¹⁷⁷				√		√		√	√
Emery 2007 ⁵⁷						√		√	√
McHugh 2007 ¹⁴²						√			√
Soligard 2008 ²¹⁶				√		√			√
Emery 2010 ⁵⁶						√			√
Kiani 2010 ¹¹⁸				√		√			
LaBella 2011 ¹²⁵				√		√		√	√
Longo 2012 ¹³³						√		√	√
Walden 2012 ²⁵³						√			√
Hagglund 2013 ⁹⁰						√	√		
Steffen 2013 ²¹⁹				√		√			

Table S10. Overlapping Systematic Reviews and Meta-Analyses Pertaining to Prevention of Foot Injuries

Overlapping Studies	Included Systematic Reviews and Meta-Analyses					
	Gillespie 2000 ⁷⁶	Jones 2002 ¹¹⁴	Rome 2005 ¹⁸⁷	Shaffer 2006 ²⁰⁴	Peters 2016 ¹⁷³	Bonanno 2017 ²⁹
Andrish 1974 ¹¹	√		√	√		
Milgrom 1985 ¹⁴⁸	√	√	√	√		√
Bensel 1986 ²⁷			√	√		
Gardner 1988 ⁷³	√	√	√	√		
Schwellnus 1990 ¹⁹⁹	√	√	√	√		
Milgrom 1992 ¹⁴⁷	√		√	√	√	
Schwellnus 1992 ¹⁹⁸	√		√	√		
Pope 1998 ¹⁸⁰			√	√	√	
Finestone 1999 ⁶⁶			√	√		√
Pope 2000 ¹⁸¹			√	√		
Mundermann 2001 ¹⁵³			√	√		
Larsen 2002 ¹²⁶					√	√
Finestone 2004 ⁶⁷			√	√		√