

Supplementary material 2

Characteristics of the included studies (n = 42)

Study, year, setting, injury record	Sample size, sex, age	Sport, mean practice duration	Disability	Injury definition	Exposure (days)	Sports injuries	Prevalence	Incidence rate (95% CI)
Studies reporting on both prevalence and incidence rates (n = 25)								
Antonietti <i>et al.</i> , 2008[22] Location: Brazil Sample selection: convenience Injury record: Physiotherapy students	n* = 27 Sex: male Average age: 30.1 (SD 10.6) years	Sport: wheelchair basketball Mean practice duration: 48.9 (SD 62.5) months	Spinal cord injury	Some participants presented injury with pathological diagnosis established by prior medical evaluation. Those who had no previous pathological diagnosis, it was considered pain as a complaint and injury was considered non-specific.	365	18	86.6% (23**)	1.8 (95% CI, 1.0–2.7) injuries per 1000 athlete-days ^a
Bauerfeind <i>et al.</i> , 2015[33] Location: Poland Sample selection: convenience Injury record: National Team physiotherapists and medical histories of the athletes	n* = 14 Sex: male Average age: 29.5 (SD 5.7) years	Sport: wheelchair rugby Mean practice duration: 6.68 (SD 3.66) years	Spinal cord injury and others	Sports injuries were defined as bodily injuries that arise during training or competition, and stopped, limited or modified participation in sports activities for one day or more	Mean of training and tournament days = 25 (SD 5.6)	106	100% (14**)	302.8 (95% CI, 245.2–360.5) injuries per 1000 athlete-days ^a

Derman <i>et al.</i> , 2016[39] Location: Sochi 2014 Winter Paralympic Games Sample selection: convenience Injury record: ATOS system supplied to the medical staff employed by the Sochi Organising Committees of the Olympic and Paralympic Games (SOCOG) and WEB-IISS	n* = 547 Sex: both sex Average age: from 13 years	Sport: alpine skiing/ snowboarding, cross-country skiing / biathlon, ice sledge hockey, wheelchair curling Mean practice duration: not reported	Not reported	Injury was specifically defined as ‘any newly acquired injury as well as exacerbations of pre-existing injury that occurred during training and/or competition in the games period of the Sochi 2014 Winter Paralympic Games’	12	174	24.5 % (134**)	26.5 (95% CI, 22.7–30.8) injuries per 1000 athlete-days
Derman <i>et al.</i> , 2018[7] Location: Rio 2016 Summer Paralympic Games Sample selection: convenience Injury record:	n* = 3657 Sex: both sex Average age: from 12 years	Sport: archery, boccia, canoe, cycling (track and road), equestrian, football 5-a-side, football 7-a-side, goalball, judo, para athletics, para powerlifting, para swimming,	Limb deficiency (amputation, dysmelia, congenital deformity), visual impairment, spinal cord injury, central neurological injury (cerebral palsy, traumatic brain injury, stroke, other	Injury was specifically defined as ‘any newly acquired injury as well as exacerbations of pre-existing injury that occurred during training and/ or competition in the games period of the	Overall: 14 Pre-competition : 3 Competition n: 11	Overall: 510 Pre-competition : 141 Competition n: 369	Overall: 12.1% (441**) Pre-competition : 3.7% (134**) Competition n: 8.9% (325**)	Overall: 10.0 (95% CI, 9.1–10.9) injuries per 1000 athlete-days Pre-competition: 12.9 (95% CI, 10.9–15.2) injuries per 1000 athlete-days Competition: 9.2 (95% CI, 8.3–10.2) injuries per 1000 athlete-days

WEB-IISS		rowing, sailing, shooting para sport, sitting volleyball, table tennis, triathlon, wheelchair basketball, wheelchair fencing, wheelchair rugby and wheelchair tennis Mean practice duration: not reported	neurological impairment), other, <i>Les autres</i> (non-spinal polio myelitis, ankylosis, leg shortening, joint movement restriction, nerve injury resulting in local paralysis), intellectual impairment, unknown, short stature	Rio 2016 Summer Paralympic Games'				
Derman <i>et al.</i> , 2020[40] Location: Pyeongchang 2018 Paralympic Winter Games Sample selection: convenience Injury record: Polyclinic datasets and WEB-IISS	n* = 567 Sex: both sex Average age: 32.1 (SD 10.3) years	Sport: para alpine skiing, para snowboard, para Nordic skiing (combining para cross-country skiing and para biathlon), para ice hockey and wheelchair curling Mean practice duration: not reported	Limb deficiency (amputation, dysmelia and congenital deformity), spinal cord injury, visual impairment, central neurologic injury (cerebral palsy, traumatic brain injury, stroke and other neurological impairments), <i>Les autres</i> , unknown	Injury was defined as 'any newly acquired injury as well as exacerbations of pre-existing injury that occurred during training and/or competition in the games period of the Pyeongchang 2018 Paralympic Winter Games'	Overall: 12 Pre-competition : 3 Competitio n: 9	Overall: 142 Pre-competition : 33 Competitio n: 109	Overall: 19.8% (112**) Pre-competition : 5.5% (31**) Competitio n: 16.8% (95**)	Overall: 20.9 (95% CI, 17.4–25.0) injuries per 1000 athlete-days Pre-competition period: 19.4 (95% CI, 13.6–27.6) injuries per 1000 athlete-days Competition: 21.4 (95% CI, 17.4–26.3) injuries per 1000 athlete-days
Fagher <i>et al.</i> , 2019[41] Location:	n* = 45 Sex: both sex Average age:	Sport: judo Mean practice duration: not	Visual impairment	Sports injury was defined and questioned to the	365	70	84% (38**)	4.3 (95% CI, 3.3–5.3) injuries per 1000 athlete-days ^a

United Kingdom Sample selection: convenience Injury record: Bachelor student	from 18 years	reported		athletes as: 'Have you had any new musculoskeletal pain, feeling or injury during the past year that caused changes in normal training or competition to the mode, duration, intensity, or frequency, regardless of whether or not time is lost from training or competition?'				
Ferrara <i>et al.</i> , 1992[42] Location: USA Sample selection: convenience Injury record: investigator	n* = 426 Sex: both sex Average age: 25.6 years	Sport: track, field, weightlifting, swimming and others Mean practice duration: 5.8 years	Not reported	The definition of injury was 'any trauma to the participant that occurred during any practice training, or competition session that caused the athlete stop, limit, or modify participation for 1 d or more'	180	388	32% (137**)	5.1 (95% CI, 4.5–5.7) injuries per 1000 athlete-days ^a
Ferrara <i>et al.</i> , 1994[43] Location: USA Sample selection: convenience Injury record:	n* = 217 Sex: both sex Average age: 24.2 (SD 7.8) years	Sport: track, field, weightlifting, soccer, cycling, wheelchair team handball, boccia, slalom, equestrian,	Cerebral palsy	The definition of injury was 'any trauma to the body that occurred during a practice, training, or competition session that caused	180	144	25% (54**)	3.7 (95% CI, 3.1–4.3) injuries per 1000 athlete-days ^a

investigator		bowling and cross-country Mean practice duration: 6.2 (4.1) years		the athlete to stop, limit, or modify participation in sports for 1 or more days'				
Gajardo <i>et al.</i> , 2019[44] Location: Southern Championship of the National Goalball League of Chile 2017. Sample selection: convenience Injury record: Kinesiology students	n* = 39 Sex: both sex Average age: 41 (SD 14.9) years	Sport: goalball Mean practice duration: not reported	Visual impairment	Physical injury or ailment was defined as 'any musculoskeletal or neurological ailment related to sport and generating alterations in training / competition'	28	25	64% (25**)	22.9 (95% CI, 13.9–31.9) injuries per 1000 athlete-days ^a
Gawroński <i>et al.</i> , 2013[45] Location: Beijing 2008 and London 2012 Sample selection: convenience Injury record: two team physicians	n* = 91 in Beijing and 100 in London Sex: both sex Average age: 32 (SD 11) years in Beijing and 32 (SD 10) years in London	Sport: equestrian, cycling, athletics, archery, swimming, powerlifting, shooting, wheelchair basketball, wheelchair fencing, wheelchair tennis, table tennis, rowing Mean practice	Amputation, spinal cord injury, <i>Les autres</i> , cerebral palsy, visual impairment, intellectual disability	Injury was defined as 'a newly acquired musculoskeletal symptom or an exacerbation of a pre-existing (chronic) injury that occurred during training and/or competition'	Beijing: 21 days London: 16 days	Beijing: 57 London: 24	Beijing: 37.4% (34**) London: 16% (16**)	Beijing: 29.8 (95% CI, 22.1–37.6) injuries per 1000 athlete-days London: 15 (95% CI, 9.0–21.0) injuries per 1000 athlete-days

Kubosch <i>et al.</i> , 2017[23] Location: Germany Sample selection: convenience Injury record: OSTRC questionnaire	n* = 24 Sex: both sex Average age: 36.5 (SD 9.7) years	duration: not reported Sport: paracycling Mean practice duration: not reported	Paraplegia, extremity disability, Injury Cerebral Palsy/skull injury, visual impairment and pilot	Acute injury was defined as 'any musculoskeletal complaint caused by previous acute trauma' and overload injuries were defined as 'musculoskeletal complaints that resulted in acute trauma or exacerbation of existing complaints, and persisted for days, weeks, or months without connection to a relevant event'	168	27	14% (3**)	6.7 (95% CI, 4.2–9.2) injuries per 1000 athlete-days ^a
Marqueta <i>et al.</i> , 2005[24] Location: Netherlands Sample selection: convenience Injury record: not reported	n* = 34 Sex: both sex Average age: 26.6 (range from 15 to 41) years	Sport: athletics Mean practice duration: not reported	Visual impairment, cerebral palsy, amputation, upper limb atrophy, brachial paralysis, superior limb agenesis, tetraplegia, paraplegia and Charcot-Marie-Tooth disease	Injury was defined as 'any circumstance that affecting the musculoskeletal system has motivated a consultation medical and / or assistance by both the doctor as by the physiotherapists of the selection'	10	50	70.5% (24**)	147.1 (95% CI, 106.3–187.8) injuries per 1000 athlete-days ^a
McCormick <i>et al.</i> , 1990[25]	n* = 777 Sex: both sex	Sport: soccer, equestrian, track /	Intellectual impairment	A sports injury was defined as 'an injury	3	4	3.5% (27**)	1.7 (95% CI, 0–3.4) injuries per 1000

Location: USA Sample selection: convenience Injury record: Paediatrician, paediatric resident trainee, or registered nurse	Average age: not reported	field, swimming / diving, gymnastics Mean practice duration: not reported		resulting directly from participation in a sports event ^a				athlete-days ^a
Ona Ayala <i>et al.</i> , 2019[26] Location: Rio 2016 Paralympic Games Sample selection: convenience Games Injury record: WEB-IISS	n* = 180 Sex: both sex Average age: range from 12 to 75 years	Sport: powerlifting Mean practice duration: not reported	Not reported	Injury was defined as 'any newly acquired injury as well as exacerbations of preexisting injury that occurred during training and/or competition of the 3-day pre-competition and 7-day competition period at the Rio 2016 Paralympic Games'	10	22	78% (141**)	15.6 (95% CI, 9.61–21.59) injuries per 1000 athlete-days
Taylor <i>et al.</i> , 1995[27] Location: England Sample selection: convenience Injury record: self-reported	n* = 53 Sex: both sex Average age: 59% of athletes were aged from 25 to 39 years	Sport: wheelchair race Mean practice duration: 3 years (interquartile range of 1-5.75)	The most commonly were spinal cord injuries and spina bifida	An injury was defined as 'pain in any part of the body that affected or prevented the athlete from training or competing for at least 1 day'	365	44	72% (38**)	2.3 (95% CI, 1.6–2.9) injuries per 1000 athlete-days ^a
Willick <i>et al.</i> ,	n* = 163	Sport:	Not reported	Injury was defined as	7	38	23.3%	3.3 (95% CI, 24.0–42.6)

2016[28] Location: London 2012 Paralympic Games Sample selection: convenience Injury record: LOCOG and WEB-IISS	Sex: both sex Average age: range from 13 to 67 years	powerlifting Mean practice duration: not reported		‘any newly acquired injury as well as exacerbations of preexisting injury that occurred during training and/or competition of the 14-day pre- competition and competition period of the London 2012 Paralympic Games’			(38**)	injuries per 1000 athlete-days
Webborn <i>et al.</i> , 2006[29] Location: 2002 Salt Lake Winter Paralympic Games Sample selection: convenience Injury record: authors of the study, team physicians and other medical personnel	n* = 416 Sex: both sex Average age: 33 (range from 17 to 58) years	Sport: alpine skiing, nordic skiing and sledge hockey Mean practice duration: not reported	Not reported	The authors considered important to describe all sport- related conditions that might conceivably medical personnel affect the performance or functional capacity of the winter Paralympic athlete	20	39	9% (39**)	4.7 (95% CI, 3.2–6.2) injuries per 1000 athlete-days ^a
Willick <i>et al.</i> , 2013[30] Location: London 2012 Paralympic	n* = 3565 Sex: both sex Average age: 30 (range from 13 to 67) years	Sport: football 5- a-side, powerlifting, goalball, wheelchair	Not reported	Injury was defined as ‘any sport-related musculoskeletal or neurological complaint prompting	Overall: 14 Pre- competition : 3 Competitio	Overall: 633 Pre- competition : 158	15.1% (539**)	Overall: 12.7 (95% CI 11.7–13.7) injuries per 1000 athlete-days Pre-competition: 14.8 (95% CI, 12.6–17.3)

Games Sample selection: convenience Injury record: London Organizing Committee of the Olympic and Paralympic Games (LOCOG) and own teams medical staff, utilizing a web-based injury and illness surveillance system (WEB-IISS)		fencing, wheelchair rugby, athletics, judo, wheelchair tennis, table tennis, wheelchair basketball, football 7-a-side, seated volleyball, cycling track, equestrian, swimming, archery, boccia, cycling road, sailing, rowing, shooting Mean practice duration: not reported		an athlete to seek medical attention, regardless of whether or not the complaint resulted in lost time from training or competition'	n: 11	Competitive n: 475		injuries per 1000 athlete-days Competition: 12.1 (95% CI, 11.0–13.3) injuries per 1000 athlete-days
Fagher <i>et al.</i> , 2020[31] Location: Sweden Sample selection: convenience Injury record: an eHealth based self-report application adapted to Paralympic	n* = 107 Sex: both sex Average age: range from 18 to 63 years	Sport: cycling, para athletics, para cross-country skiing, triathlon, canoe, goalball, judo, para alpine skiing, para ice hockey, para swimming, table tennis, wheelchair basketball, wheelchair rugby,	Physical, visual and intellectual impairments, central neurological impairment, <i>les autres</i> , limb deficiency, spinal cord injury	Sports-related injuries and illnesses in Paralympic sport (SRIIPS) were defined as 'any new musculoskeletal pain, feeling, injury, illness or psychological complaint that caused changes in normal training or competition to the	365	179	68% (73**)	6.9 (95% CI, 6.0–8.0) per 1000 hours ^c

athletes		wheelchair tennis, boccia, equestrian, sailing, shooting para sport, wheelchair curling. Mean practice duration: 5.8 years		mode, duration, intensity, or frequency, regardless of whether or not time was lost from training or competition'				
Haykowsky <i>et al.</i> , 1999[32]	n* = 11 Sex: both sex	Sport: powerlifting	Visual impairment	Injury was considered as powerlifting-related injuries that required medical intervention (from a physician, chiropractor, or physical therapist) and that resulted in an interruption in training for more than one day	365	Not reported	36% (4**)	0.1 injuries per 100 hours of training ^b
Location: Canada	Average age: from 22 to 75 years	Mean practice duration: 5 (range: 0.25-11) years						
Sample selection: convenience								
Injury record: not reported								
Lankhorst <i>et al.</i> , 2019[34]	n* = 103 Group 0 (no participation in organized sport at all): 18	Sport: not reported Mean practice duration: not reported	Cardiovascular, pulmonary, musculoskeletal, metabolic or neuromuscular disorders according to the classification of the American College of Sports Medicine	Injury was defined as 'any new musculoskeletal pain, feeling or injury which results from participation in recreational physical activity or sports and causes changes in physical activities including sports	360 (Cumulative hours of physical activity during 1 year per group – group 0: 10,674; group 2:	86 Group 0: 9 Group 1: 17 Group 2: 60	46% (47**)	Group 0: 0.84 (95% CI, 0.38–1.6) per 1000 h of physical activity ^c Group 1: 1.88 (95% CI, 1.1–3.1) per 1000 h of physical activity ^c Group 2: 1.33 (95% CI, 1.0–1.7) per 1000 h of physical activity ^c
Location: Netherlands	Group 1 (sports participation at sport club one time per week): 21							
Sample selection: convenience								
Injury record: Questionnaire based on recommendation								

s of the Dutch Ministry of Health, Welfare and Sport (VWS) and designed in an online web-based tool	participation at sport club two or more times per week): 64 Sex: both sex Average age: 14.4 (SD 2.7) years			activities, regardless of whether or not time is lost from physical activity, sports training or competition'	9,019; group 2: 44,937)			
Magno e Silva <i>et al.</i> , 2013[35] Location: Brazil Sample selection: convenience Injury record: multidisciplinary Brazilian medical team	n* = 28 Paralympic Games 2004: 3 athletes Pan American Games 2005: 23 athletes IBSA World Championships 2007: 14 athletes Pan American Games 2007: 13 athletes Beijing 2008: 3 athletes Sex: both sex Average age: 36.5 (SD 9.7) years	Sport: swimming Mean practice duration: not reported	Visual impairment	A reportable injury was defined as 'any injury that caused an athlete to stop, limit, or modify participation for 1 or more days'	Paralympic Games 2004: 12 ^a Pan American Games 2005: 20 ^a IBSA World Championships 2007: 13 ^a Pan American Games 2007: 17 ^a Beijing 2008: 12 ^a	Overall: 41 Paralympic Games 2004: 4 injuries Pan American Games 2005: 7 injuries IBSA World Championships 2007: 22 injuries Pan American Games 2007: 6 injuries Beijing 2008: 2 injuries	Overall: 64% (18**) Paralympic Games 2004: 100% (3**) Pan American Games 2005: 35% (8**) World Championships 2007: hip International Blind Sports Federation 2007: 79% (11*) Para Pan American Games 2007: 38%	Overall: 0.3 injuries per athlete per competition Paralympic Games: 111.1 (95% CI, 2.2–220.0) injuries per 1000 athlete-days ^a Pan American Games 2005: 15.2 (95% CI, 3.9–26.5) injuries per 1000 athlete-days ^a IBSA World Championships 2007: 120.9 (95% CI, 70.4–171.4) injuries per 1000 athlete-days ^a Pan American Games 2007: 27.2 (95% CI, 4.4–48.9) injuries per 1000 athlete-days ^a Beijing 2008: 55.6 (95% CI, 0–132.6) injuries per 1000 athlete-days ^a

							(5**)	
							Paralympic Games	
							2008: 33%	
							(1**)	
Magno e Silva <i>et al.</i> , 2013[36]	n* = 13	Sport: football 5-a-side	Visual impairment	A reportable injury was defined as 'any injury that caused an athlete to stop, limit or modify participation for one or more days'	Paralympic Games	Overall: 35 Paralympic Games	Overall: 84.6% (11**)	Overall: 0.1 injuries per match
Location: Brazil	Paralympic Games 2004: 8 athletes	Mean practice duration: not reported			2004: 12 ^a	2004: 12 injuries	Paralympic Games 2004: 87.5% (7**)	Paralympic Games 2004: 125.0 (95% CI, 54.3–195.7) injuries per 1000 athlete-days ^a
Sample selection: convenience	Pan American Games 2005: 8 athletes				Pan American Games 2005: 20 ^a	American Games 2005: 6 injuries	Paralympic Games 2004: 87.5% (7**)	1000 athlete-days ^a
Injury record: multidisciplinary	IBSA World Championships 2007: 8 athletes				IBSA World Champions hips 2007: 13 ^a	IBSA World Champions hips 2007: 7 injuries	IBSA Para Pan-American Games 2005: 62.5% (5**)	Pan American Games 2005: 37.5 (95% CI, 7.5–67.5) injuries per 1000 athlete-days ^a
by Brazilian medical team	Pan American Games 2007: 8 athletes				Pan American Games 2007: 17 ^a	Pan American Games 2007: 3 injuries	IBSA World Champions hip 2007: 62.5% (5**)	IBSA World Championships 2007: 67.3 (95% CI, 17.5–117.2) injuries per 1000 athlete-days ^a
	Beijing 2008: 8 athletes				Beijing 2008: 12 ^a	Beijing 2008: 7 injuries	World Champions 2007: 37.5% (3**)	Pan American Games 2007: 22.1 (95% CI, 0–47.0) injuries per 1000 athlete-days ^a
	Sex: male						Parapan American Games 2007: 37.5% (3**)	Beijing 2008: 72.9 (95% CI, 18.9–126.9) injuries per 1000 athlete-days ^a
	Average age: 36.5 (SD 9.7) years						Paralympic	

Magno e Silva <i>et al.</i> , 2013[37]	n* = 40 Paralympic Games 2004: 11 athletes Pan American Games 2005: 28 athletes IBSA World Championships 2007: 28 athletes Pan American Games 2007: 19 athletes Beijing 2008: 22 athletes Sex: both sex Average age: 36.5 (SD 9.7) years	Sport: athletics Mean practice duration: not reported	Visual impairment	A reportable injury was defined as 'any injury that caused an athlete to stop, limit, or modify participation for 1 ≥ d'	Paralympic Games 2004: 12 ^a Pan American Games 2005: 20 ^a IBSA World Champions hips 2007: 13 ^a Pan American Games 2007: 17 ^a Beijing 2008: 12 ^a	Overall: 77 Paralympic Games 2004: 11 injuries American Games 2005: 16 injuries IBSA World Champions hips 2007: 28 injuries Pan American Games 2007: 11 injuries Beijing 2008: 11 injuries	Games 2008: 50.0% (4**) Overall: 78% (31**) Paralympic Games 2004: 82% (9**) IBSA Para Pan-American Games 2005: 46% (13**) IBSA World Champions hip 2007: 61% (17**) Para Pan-American Games 2007: 47% (9**) Paralympic Games 2008: 36% (8**)	Average incidence rate of 0.4 injuries per athlete per competition Paralympic Games 2004: 83.3 (95% CI, 34.1–132.6) injuries per 1000 athlete-days ^a Pan American Games 2005: 111.1 (95% CI, 2.2–220.0) injuries per 1000 athlete-days ^a IBSA World Championships 2007: 76.9 (95% CI, 48.4–105.4) injuries per 1000 athlete-days ^a Pan American Games 2007: 34.1 (95% CI, 13.9–54.2) injuries per 1000 athlete-days ^a Beijing 2008: 41.7 (95% CI, 17.0–66.3) injuries per 1000 athlete-days ^a
Saffarian <i>et al.</i> , 2019[38]	n* = 409 Sex: both sex Average age:	Sport: archery, badminton, basketball,	Dwarfism	An injury or illness was described as 'any symptom that	8	24	5.9% (24**)	0.78 injury per 100 athlete-competitions

World Dwarf Games (USA) Sample selection: convenience Injury record: Physician or athletic training staff	Futures (6 years and younger), Junior A (7–11 years old), Junior B (12–15 years old), Open (any age), and Masters (35 and older)	boccia, floor hockey, curling, powerlifting, shooting, soccer, swimming, table tennis, track and field, and volleyball Mean practice duration: not reported		an athlete was experiencing that led them to seek medical consultation from either an athletic trainer or a physician present at the games'					
Studies reporting only on prevalence (n = 7)									
Bernardi <i>et al.</i> , 2003[46] Location: Italy Sample selection: randomly Injury record: Sports physicians	n* = 227 Sex: both sex Average age: range from 12 to 64 years	Sport: wheelchair tennis, fencing, athletics, swimming, wheelchair basketball and others Mean practice duration: not reported	Spinal cord injury, amputation, cerebral palsy and <i>Les autres</i> (disorders resulting in locomotor disabilities that did not fit into the previously mentioned categories)	'Sport-related muscle pain' was defined as any muscle pain experienced during the past 12 months that occurred during sport activity (training or competition) and/or was reported as a consequence of physical exercise, causing discomfort for at least 1 d and not being related to systemic disease	365	Not reported	50.7% (115**)	Not reported	
Curtis <i>et al.</i> , 1999[47] Location: USA Sample selection: convenience	n* = 46 Sex: female Average age: 33.2 (SD 9.1) years	Sport: wheelchair basketball Mean practice duration: not reported	Spinal cord injury, lower extremity musculoskeletal and neuromuscular disabilities, post-polio, spina bifida	Wheelchair User's Shoulder Pain Index (WUSPI) was used to measure shoulder pain	Not reported	Not reported	72% (33**) of the subjects reported shoulder pain since	Not reported	

Injury record: assistants			and amputation				wheelchair use and 89.1% (41**) of the subjects reported upper extremity pain since beginning wheelchair use	
Fagher <i>et al.</i> , 2020[48] Location: Sweden Sample selection: convenience Injury record: Sports physiotherapists	n* = 104 Sex: both sex Average age: 29 (Interquartile range 23-36) years	Sport: cycling, para athletics, para cross- country skiing, triathlon, canoe, goalball, judo, para alpine skiing, para ice hockey, para swimming, table tennis, wheelchair basketball, wheelchair rugby, wheelchair tennis, boccia, equestrian, sailing, shooting para sport, wheelchair curling. Mean practice	Limb deficiency (amputation, dysmelia, congenital deformity), spinal cord injury, <i>Les autres</i> , central neurological injury (cerebral palsy, traumatic brain injury, stroke, other neurological), intellectual impairment, visual impairment, wheelchair athletes	The definition of current sports-related injuries and illnesses in Paralympic sport (SRIIPS) was: 'any new musculoskeletal pain, feeling, injury, illness or psychological complaint that caused changes in normal training or competition to the mode, duration, intensity, or frequency, regardless of whether or not time is lost from training or competition'	365	Not reported	31% (32**) Not reported	

Patatoukas <i>et al.</i> , 2011[49] Location: 2000 Panhellenic Championship for Athletes with Disabilities (Greece) Sample selection: convenience Injury record: not reported	n* = 139 Sex: both sex Average age: 32.8 (SD 8.6) years	duration: 10 (Interquartile range 5-16) years Sport: wheelchair basketball, standing track & field, swimming, wheelchair field, gym, wheelchair track, powerlifting, wheelchair dancing, shooting Mean practice duration: 7.2 (SD 5) years	Spinal cord injury, poliomyelitis, cerebral palsy, acquired brain injury, amputation, other disabilities (arthrogryposis, dysmelias, dwarfism, etc) and <i>Les Autres</i>	Athletic injury was defined as 'any injury that caused an athlete to stop, limit or modify participation for 1 day or more'	Not reported	178	49.6% (69**)	Not reported
Shimizu <i>et al.</i> , 2017[50] Location: 2014 Asian Para Games (Japan) Sample selection: convenience Injury record: two physicians	n* = 22 Sex: female Average age: 29.1 (SD 8) years	Sport: wheelchair basketball Mean practice duration: 8.6 (SD 5.8) years	Central nervous system disorders (spinal cord injuries, spina bifida, cerebral palsy) and skeletal system disorders (transtibial amputation, hip disorder, knee disorder and ankle disorder)	Deep tissue injury (DTI) was defined as 'a purple or maroon localized area of discolored intact skin or a blood-filled blister due to damage to the underlying soft tissue from pressure and/or shear forces'	Not reported	23	68.2% (15**)	Not reported
Tenforde <i>et al.</i> , 2019[51] Location: USA Sample selection:	n* = 260 Sex: both sex Average age: 31.7 (SD 11.5) years	Sport: not reported Mean practice duration: not reported	Spinal cord injury, lower limb amputee, neurological injury, visual impairment, cerebral palsy,	Bone stress injury was defined as 'either stress reaction or stress fracture'	Not reported	Not reported	50% (130**)	Not reported

convenience Injury record: authors of the study			others, upper limb amputee, musculoskeletal disorder, arthrogryposis Visual impairment	Sports injury was defined as “damage to body tissue resulting from practicing a sport or exercise” and the authors also used the time of absence from training and competitions as a criterion for classification of injury	9	Not reported	44% (19**)	Not reported
Zwierzchowska <i>et al.</i> , 2020[52] Location: Goalball European Championship Sample selection: convenience Injury record: authors assisted by a coach and team interpreter Studies reporting only on incidence rates (n = 10)	n* = 43 Sex: both sex Average age: 26 years	Sport: goalball Mean practice duration: 6 years						
Blauwet <i>et al.</i> , 2016[3] Location: London 2012 Paralympic Games Sample selection: convenience Injury record: London Organizing Committee of the Olympic and	n* = 977 Sex: both sex Average age: from 13 years	Sport: athletics Mean practice duration: not reported	Amputation, visual impairment, cerebral palsy, short stature and other disorders	Injury was defined as any newly acquired injury as well as exacerbations of preexisting injury that occurred during training and/or competition of the 14 day pre-competition and competition period of the London 2012 Paralympic Games	10	216	Not reported	22.1 (95% CI, 19.5– 24.7) injuries per 1000 athlete-days

Paralympic Games (LOCOG) and own teams medical staff, utilizing a web-based injury and illness surveillance system (WEB-IISS)								
Ferrara <i>et al.</i> , 1992[53] Location: USA Sample selection: convenience Injury record: self-reported	n* = 68 Sex: both sex Average age: 29.6 (SD 9.5) years	Sport: skiing Mean practice duration: 6.7 (SD 4.5) years	Leg and arm amputation, spinal cord injury, visual impairment, spina bifida, multiple sclerosis, muscular dystrophy and undescribed impairments	The definition of injury was 'any trauma to the participant that occurred during any practice training, or competition session that resulted in the cessation, limitation, or modification of the athlete's participation in the sport for at least 24 hours'	182	100	Not reported	8.1 (95% CI, 6.5–9.7) injuries per 1000 athlete-days ^a
Ferrara <i>et al.</i> , 2000[54] Location: 1990 World Games and Championship (WC) in Assen, Holland, 1991	n* = 1360 (overall) WC: 220 athletes PT: 345 athletes PGI: 360 athletes AC: 55 athletes	Sport: multi sports events ranged from 14 to 21 different sports Mean practice duration: not reported	Not reported	A reportable injury was defined as 'an injury/illness that was evaluated by the US Medical Staff during these competitions'	WC: 13 ^a PT: 12 ^a PGI: 24 ^a AC: 7 ^a PGII: 14 ^a	Overall: 1037 WC: 52 PT: 170 PGI: 387 AC: 22 PGII: 406	Not reported	WC: 18.2 (95% CI, 13.2–23.1) injuries per 1000 athlete-days ^a PT: 41.1 (95% CI, 34.9–47.2) injuries per 1000 athlete-days ^a PGI: 44.8 (95% CI, 40.3–49.3) injuries per

US Paralympic Trials (PT) in Hempstead, New York, 1992 Paralympic Games (PGI) in Barcelona, Spain, 1994 World Athletics Championships (AC) in Berlin, Germany, and 1996 Paralympic Games (PGII) in Atlanta, USA Sample selection: convenience Injury record: medical staff	PGII: 380 athletes Sex: both sex Average age: not reported							1000 athlete-days ^a AC: 57.1 (95% CI, 33.3–81.0) injuries per 1000 athlete-days ^a PGII: 76.3 (95% CI, 68.9–83.7) injuries per 1000 athlete-days ^a
Hollander <i>et al.</i> , 2019[55] Location: Wheelchair Basketball World Championships 2018 in Germany Sample selection: convenience	n* = 132 Sex: both sex Average age: 29.7 (SD 6.1) years	Sport: wheelchair basketball Mean practice duration: not reported	Spinal cord injury	Injury was defined as ‘any newly incurred musculoskeletal complaint (traumatic or overuse) and/or concussion during the tournament receiving medical attention regardless of the consequences for participation’	11	100	Not reported	68.9 (95% CI, 55.4–82.4) injuries per 1000 athlete-days

Injury record: IOC injury surveillance system for multi-sports events Nyland <i>et al.</i> , 2000[56] Location: 1996 Paralympic Games (USA) Sample selection: convenience Injury record: United States Olympic Committee (USOC)	n* = 304 Sex: both sex Average age: not reported	Sport: athletics, wheelchair basketball, cycling, equestrian, fencing, boccie, goalball, judo, quad rugby, lawn bowling, powerlifting, soccer, swimming, table tennis, tennis, sitting volleyball, standing volleyball Mean practice duration: not reported	Physical disabilities, visual impairment, cerebral palsy, stroke, acquired or congenital motor dysfunction and spinal cord injury	Soft tissue injuries were operationally defined as strain, sprain, tendonitis, bursitis, or contusion	10	254	Not reported	83.6 (95% CI, 73.3– 93.8) injuries per 1000 athlete-days ^a
Webborn <i>et al.</i> , 2012[57] Location: 2010 Vancouver Paralympic Games Sample selection:	n* = 505 Sex: both sex Average age: not reported	Sport: alpine skiing, nordic skiing (include biathlon), ice sledge hockey and wheelchair curling Mean practice	Not reported	Injury was defined as 'any sports-related musculoskeletal complaint that caused the athlete to seek medical attention during the study period,	17	106 injuries (actual injuries reported as 120 but need to remove 14 as states	Not reported	12.4 (95% CI, 10.0– 14.7) injuries per 1000 athlete-days ^a

convenience Injury record: staff at the Polyclinics and venue medical		duration: not reported		regardless of the athlete's ability to continue with training or competition'			were not sports related)	
Webborn <i>et al.</i> , 2016[58] Location: London 2012 Paralympic Games Sample selection: convenience Injury record: LOCOG and WEB-IISS	n* = 70 in Football 5-a- side and 96 in Football 7-a- side Sex: male Average age: not reported	Sport: football 5- a-side and football 7-a-side Mean practice duration: not reported	Visual impairment and central neurologic injury (cerebral palsy and traumatic brain injury)	Injury was defined as 'any newly acquired injury, as well as exacerbations of pre- existing injury that occurred during training and / or competition of the 14-day pre- competition and competition period of the London 2012 Paralympic Games'	14	Football 7- a-side: 22 Football 7- a-side: 14	Not reported	Football 5-a-side: 22.4 (95% CI, 14.1–33.8) injuries per 1000 athlete-days Football 7-a-side: 10.4 (95% CI, 5.4–15.5) injuries per 1000 athlete-days
Chung <i>et al.</i> , 2012[59] Location: China Sample selection: convenience Injury record: Physiotherapists	n* = 14 Sex: both sex Average age: 28.6 (SD 6.8) years	Sport: wheelchair foil fencers Mean practice duration: 10.1 (SD 5.3) years	Not reported	Injury was defined as trauma that occurred during a training / competition and prevented the athlete from continuing fencing activity for at least 1 day	24664 hours ^b	95	Not reported	3.9 per 1000 athlete hours (95% CI, 3.1– 4.7) ^c
Ramirez <i>et al.</i> , 2009[60] Location: USA Sample selection:	n* = 210 Sex: both sex Average age: 18 (range from 10 to 23) years	Sport: adapted basketball, field hockey, soccer and softball Mean practice	Autism, emotional disturbance, learning disability, mental retardation orthopedic disability,	Injury episodes were defined as 'events resulting in immediate removal of the athlete from	19012 hours ^{a,b}	38	Not reported	2.0 injuries per 1000 athlete hours (95% CI, 1.4–2.6) ^{a,c}

convenience Injury record: study data collectors		duration: not reported	sensory disability, multiple disability, other health impairment	the session and medical treatment by school staff or transport to a hospital'. Injury diagnoses were defined as 'the physical trauma sustained to the body region of an athlete during the injury event'				
Ferrara <i>et al.</i> , 1996[61] Location: USA Sample selection: convenience Injury record: Athletes With Disabilities Injury Registry (ADIR) staff	n* = 319 Sex: both sex Average age: 31.6 (SD 9.3) years	Sport: not reported Mean practice duration: 7.8 (SD 6.5) years	Not reported	An injury was defined when 'a scheduled practice or competition was modified, missed, or interrupted due to an injury, illness, or pain for 1 day or more'	From April 1990 until September 1992	102	Not reported	9.4 injuries per 1000 athlete-exposures

CI: confidence interval

SD: standard deviation

n*: sample size

**Corresponds to the absolute prevalence of injury in para athletes

^a Deduced or calculated from the study

^b Exposure in hours

^c Incidence Rate per 1000 h exposure