

Supplementary Table 3. Characteristics of included studies (continue).

Study, year	Country	Sample size (Infected athletes)	Age, years ^a	Sex ^a	Skill level	Sport modality	Period of data collection	COVID-19	
								Diagnosis	Severity ^b
Anastasio, 2021	Italy	13	Mean ± SD 21.0 ± 5.0	Male = 10 Female = 3	Elite	Cross-country skiing	Oct to Nov/20	PCR	NR
Andrianova, 2021	Russia	7	NR	All female	Elite	Basketball	Sep/20 to Jan/21	PCR	NR
Atherstone, 2021	USA	458	NR	NR	College/Uni versity	Football, Track and field/Cross country, Soccer, Basketball, Volleyball, Swimming and diving, Baseball, Wrestling, Golf, Gymnastics, Softball, Lacrosse, Tennis, Rowing, Others	Jun to Oct/20	RT-PCR	N/A
Babszky, 2021	Hungary	20	Mean ± SD 24.1 ± 4.7	Male = 16 Female = 4	Elite	NR	NR	PCR	NIH
Brito, 2020	USA	54	Median 19	Male = 46 Female = 8	College	Football, Basketball, Volleyball, Soccer, Swimming, Others	Jun to Aug/20	Real-time PCR and IgG	CDC/NIH
Cafiero, 2021	Italy	45	Mean ± SD 14.0 ± 1.9	Male = 26 Female = 19	Collegiate/A mateur	NR	Oct/20 to Feb/21	PCR	NIH
Cavigli, 2021	Italy	90	Mean ± SD 24.0 ± 10.0	Male = 64 Female = 26	Professional and amateur	Mixed sports	NR	NR	NR
Çelik, 2021	Turkey	17	Mean ± SD 23.5 ± 5.9	All female	Elite	Volleyball	NR	PCR	N/A
Clark, 2021	USA	59	Median (IQR) 20 (19-21)	Male = 22 Female = 37	College	9 different sports	NR	NR	NR
Costello, 2022	Australia	16	Mean ± SD 25.0 ± 6.0	Male = 12 Female = 4	Professional	Basketball	NR	PCR	NR

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Csulak 2021	Hungary	14	Mean ± SD 23.0 ± 3.8	Male = 7 Female = 7	Elite	Swimming	2021	RT-PCR and antibody	NR
Daniels 2021	USA	1597	NR	Male = 964 Female = 633	University	NR	Mar to Dec/20	PCR	N/A
Egger 2021	Germany	18	Mean ± SD 17.6 ± 3.1	NR	Professional, semi- professional and youth academy	Soccer	Aug to Sep/20	RT-PCR	N/A
Erickson, 2021	USA	170	Mean ± SD 19.6 ± 1.5	Male = 91 Female = 79	College/Uni versity	Soccer, Hockey, Tennis, Football, Track, Volleyball, Gymnastics, Wrestling, Swimming, Lacrosse, Cross Country, Baseball, Basketball, Others	Aug to Dec/20	NR	NR
Fikenzer, 2021	Germany	8	Mean ± SD 27.0 ± 3.5	All male	Elite	Handball	2020	Real time RT-PCR	NIH
Gervasi, 2021	Italy	18	Median (IQR) 22 (21-27)	All male	Professional	Soccer	NR	Real time PCR and Antibody	NR
Gualano, 2021	Brazil	501	Mean ± SD 23.0 ± 4.6	Male = 447 Female = 54	Professional	Soccer	Jul to Dec/20	RT-PCR	NR
Hendrickson, 2021	USA	137	Median (range) 20 (18–27)	Male = 93 Female = 44	College	Football, Dance, Basketball, Baseball, Tennis, Softball, Soccer, Cheer, Track, Volleyball, Golf	Jul to Oct/20	RT-PCR	NR

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Hull, 2021	UK	147	Mean ± SD 24.7 ± 5.2	Male = 92 Female = 55	Elite	Summer, winter, able-bodied, and paralympic sports	Feb/20 to Jan/21	PCR, antibody and consistent clinical features	NR
Hwang, 2021	USA	55	NR	NR	College	NR	Jun to Oct/20	PCR and antibody	NR
Jones, 2021	UK	14	NR	All male	Professional	Rugby	Jul to Oct/20	RT-PCR	N/A
Komici, 2021	Italy	24	Median (IQR) 23.5 (20-25.5)	NR	Amateur	Soccer	NR	RT-PCR	N/A
Krzywański 2022	Poland	111	Mean ± SD 22.0 ± 5.0	Male = 52 Female = 59	Elite	Wrestling, Judo, Track and Field, Sprinting, Throwing, Middle distance running, Cycling, Speed Skating, Cross Country Skiing, Swimming, Handball, Beach Volleyball, Fencing, Curling	Jul to Oct/20	RT-PCR	NR
Kuitunen, 2021	Finland	50	U-20 and 3 seniors	All male	Amateur	Ice Hockey	Sep/20	PCR	N/A
Lopes, 2021	Brazil	35	Median 27	NR	Professional, college/univ ersity and amateur	NR	Aug to Nov/20	NR	N/A
Martinez, 2021	USA	789	Mean (range) 25 (19-41)	Male = 777 Female = 12	Professional	Basketball, Soccer, Baseball, Hockey, Football	May and Oct/20	PCR and antibody	NR
Mascia, 2021	Italy	13	NR	All male	Elite	Soccer	Mar to Jun/20	RT-PCR	N/A

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Meyer, 2021	Germany	10	NR	All male	Professional	Soccer	May to Jul/20	RT-PCR and antibody	N/A
Milovancev, 2021	Serbia	16	Mean ± SD 24.0 ± 4.5	All male	Professional	Volleyball	NR	PCR	NR
Moulson, 2021	USA	3018	Mean ± SD 20.0 ± 1.0	Male = 2061 Female = 957	College/Uni versity	Football, Baseball, Track and Field/Cross Country, Lacrosse, Basketball, Swimming/Diving, Soccer, Cheerleading/Dance, Volleyball, Softball, Golf, Wrestling, Tennis, Crew, Gymnastics, Ice Hockey, Equestrian, Field Hockey, Rugby, Fencing, Water Polo, Sailing, Squash, Skiing, Synchronized Swimming	Sep to Dec/20	PCR, antibody and antigen	AMSSM/ ACC
Pedersen, 2021	Denmark	4	NR	All male	Professional	Soccer	May to Jul/20	Real time PCR	NR
Peidro, 2021	Argentina	24	Mean ± SD 27.1 ± 5.1	All male	Professional	Soccer	NR	RT-PCR	NR
Petek, 2021	USA	3597	Mean ± SD 20.0 ± 1.0	Male = 2,374 Female = 1,223	College/Uni versity	26 distinct sporting disciplines	Sep/20 to May/21	PCR, antigen or antibody	N/A
Rajpal, 2021	USA	26	Mean ± SD 19.5 ± 1.5	Male = 15 Female = 11	College	Football, Soccer, Lacrosse, Basketball, Track	Jun to Aug/20	RT-PCR	NR

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Robinson, 2021	PGA European Tour	4	NR	All male	Professional	Golf	Jul to Dec/20	RT-PCR	N/A
Schreiber, 2021	Germany	62	NR	NR	Professional, amateur and youth	Soccer	Aug/20 to Mar/21	PCR	N/A
Schumacher, 2021	Qatar	36	NR	All male	Professional	Soccer	Jun to Sep/20	PCR	N/A
Schwellnus, 2021	Multicentre (led by South Africa)	45	Mean \pm SD 32.6 \pm 14.0	Male = 18 Female = 27	Professional (31.1%)	NR	Jul to Oct/20	PCR, antibody, clinical diagnosis	N/A
Shah, 2021	USA	15	NR	NR	Elite	NR	Jul to Oct/20	PCR and antibody	N/A
Spinicci, 2021	Italy	7	NR	NR	Professional	Soccer	Mar/20 to Feb/21	RT-PCR	NR
Starekova, 2021	USA	145	Mean (age range) 20 (17-23)	Male = 108 Female = 37	College/University (competitive student athletes)	12 sport modalities	Jan to Nov/20	RT-PCR	NR
Teran, 2020	USA	17	NR	Male and female athletes (numbers not reported for infected athletes)	University	Soccer	Jul to Aug/20	Real time RT-PCR	N/A
Vago, 2021	Hungary	12	Median (IQR) 23 (20-23)	Male = 2 Female = 10	Elite	Mixed sports	NR	PCR	N/A

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