

SUPPLEMENTS

Table 1 Overview of the search strategy

Search No.	Query	Hits
PubMed/MedLine		
#1	"Humans"[Mesh]	18,140,602
#2	"Exercise"[Mesh]	186,020
#3	"Exercise Tolerance"[Mesh]	12,154
#4	"Exercise Therapy"[Mesh]	48,194
#5	"Oxygen Inhalation Therapy"[Mesh]	25,350
#6	"Hyperoxia"[Mesh]	3,587
#7	"Oxygen/therapeutic use*"[Mesh]	12,652
#8	(("Exercise"[Mesh]) OR "Exercise Tolerance"[Mesh]) OR "Exercise Therapy"[Mesh]	223,795
#9	(("Oxygen Inhalation Therapy"[Mesh]) OR "Hyperoxia"[Mesh]) OR "Oxygen/therapeutic use*"[Mesh]	39,368
#10	(("Humans"[Mesh]) AND (((("Exercise"[Mesh]) OR "Exercise Tolerance"[Mesh]) OR "Exercise Therapy"[Mesh])) AND (((("Oxygen Inhalation Therapy"[Mesh]) OR "Hyperoxia"[Mesh]) OR "Oxygen/therapeutic use*"[Mesh]))	747
EMBASE		
#1	'human'/exp	21,362,327
#2	'exercise'/exp	336,615
#3	'exercise tolerance'/exp	16,563
#4	'kinesiotherapy'/exp	77,848
#5	'oxygen therapy'/exp	49,095
#6	'hyperoxia'/exp	9,367
#7	#2 OR #3 OR #4	390,978
#8	#5 OR #6	57,496
#9	#1 AND #7 AND #8	2,324
CINAHL		
#1	(MH "Human")	1,998,279
#2	(MH "Exercise")	45,758
#3	(MH "Therapeutic Exercise")	20,840
#4	(MH "Exercise Tolerance")	4,233
#5	(MH "Oxygen Therapy")	5,198
#6	(MH "Hyperoxia")	489
#7	#2 OR #3 OR #4	68,867
#8	#5 OR #6	5,600
#9	#1 AND #7 AND #8	65
ISI Web of Knowledge		
#1	TS=humans	3,030,389
#2	TS=exercise	365,662
#3	TS=exercise therapy	39,925
#4	TS=exercise tolerance	13,416

#5	TS=oxygen inhalation therapy	1,083
#6	TS=oxygen therapy	48,726
#7	TS=hyperoxia	8,068
#8	#4 OR #3 OR #2	365,662
#9	#7 OR #6 OR #5	55,811
#10	#9 AND #8 AND #1	468
Cochrane Library		
#1	MeSH descriptor [Humans]	8,395
#2	MeSH descriptor [Exercise]	22,836
#3	MeSH descriptor [Exercise Tolerance]	2,470
#4	MeSH descriptor [Exercise Therapy]	12,598
#5	MeSH descriptor [Hyperbaric Oxygenation]	388
#6	MeSH descriptor [Oxygen Inhalation Therapy]	1,464
#7	MeSH descriptor [Hyperoxia]	180
#8	#2 OR #3 OR #4	30,807
#9	#5 OR #6 OR #7	1,621
#10	#1 AND #8 AND #9	6
Grey Literature using Google Scholar		
#1	Keyword search/hand search: exercise AND (hyperoxia OR oxygen therapy)	Stopped at 514

Table 2 Overview of the outcomes of interest

Item	Rooyackers	Fichter	Garrod	Wadell	Emtner	Karlsen	BjØrgen	Scorsone	Ringbaek	Spielmanns	Neunhuserer	Alison	Total
W_{max}	X	X			X	X	X	X		X	X		8
VO_{2peak}	X	X			X	X	X	X		X	X		8
HR_{peak}	X	X		X	X	X	X	X			X		8
BLa		X		X	X	X	X			X	X		7
6MWT	X			X [§]						X			3
TTE	X				X			X [#]					3
ESWT									X			X	2
ISWT			X						X [§]			X	1
Stair climb	X												1
Weight lifted	X												1
RPE				X		X	X						3
Dyspnea	X		X [#]	X	X			X					5
Leg Fatigue					X			X					2
CRDQ	X		X [#]		X [#]							X	4
HADS			X								X		2
LCADL			X										1
SF-36					X [#]	X [#]				X [#]			3
Macnew						X							1
SGRQ									X				1
Dyspnoea-12												X	1
TOTAL	9	4	5	5	9	7	5	6	2	5	5	4	

6MWT six minute walking test; **BLa** blood lactate concentration; **CRDQ** Chronic Respiratory Disease Questionnaire; **Dyspnoea-12** Dyspnoea-12 questionnaire; **ESWT** endurance shuttle walk test; **HADS** Hospital Anxiety and Depression Scale; **HR_{peak}** peak heart rate; **ISWT** incremental shuttle walk test; **LCADL** London Chest Activity of Daily Living Scale; **Macnew** Heart Disease Health-related Quality of Life Questionnaire; **RPE** rating of perceived exertion; **SF-36** 36-Item Short Form Health Survey; **SGRQ** St. George's Respiratory Questionnaire; **TTE** time to exhaustion; **VO_{2peak}** peak oxygen consumption; **W_{max}** maximal watt. Note: [§] non-motorized treadmill; [§] assessed only at baseline; [#] insufficient reporting and/or no response to provide missing values and therefore not considered in pooled analysis

Table 3 Summary of changes in physical fitness, functional capacity and patient-reported outcomes presented by included studies (chronological order of publication date)

Author (year)	Outcomes	Results		Safety and Attendance [%]
		Within-group changes	Between-group changes	
Rooyackers et al. 1997	W_{max} [W]	SO: 58 ± 33 to 65 ± 39; Normoxia: 70 ± 51 to 87 ± 58 (p<0.01)	SO ↔ Normoxia	Safety: no exercise- or supplemental oxygen-related dropouts reported Attendance: Not reported
	VO_{2peak} [L · minute ⁻¹]	SO: 1.0 ± 0.3 to 1.0 ± 0.3 Normoxia: 1.2 ± 0.5 to 1.2 ± 0.6	SO ↔ Normoxia	
	HR_{peak} [beats · minute ⁻¹]	SO: 126 ± 17 to 126 ± 19 Normoxia: 133 ± 21 to 132 ± 23	SO ↔ Normoxia	
	6MWT [m]	SO: 389 ± 140 to 475 ± 180 (p<0.01) Normoxia: 487 ± 191 to 610 ± 166 (p<0.01)	SO ↔ Normoxia	
	TTE [minutes]	SO: 4.5 ± 2.5 to 6.7 ± 3.7 Normoxia: 6.5 ± 4.4 to 6.5 ± 4.4	SO ↔ Normoxia	
	Dyspnoea (BORG 0-10)	SO: 6.6 ± 2.1 to 5.3 ± 1.2 Normoxia: 7.3 ± 2.4 to 5.8 ± 1.9	SO ↔ Normoxia	
	Stair climb [n]	SO: 22 ± 10 to 30 ± 14 (p<0.01) Normoxia: 29 ± 12 to 41 ± 18 (p<0.01)	SO ↔ Normoxia	
	Weight lifted [n]	SO: 37 ± 9 to 46 ± 7 (p<0.01) Normoxia: 36 ± 14 to 52 ± 18 (p<0.01)	SO ↔ Normoxia	
	CRDQ			
	<i>Dyspnoea</i>	SO: 15.9 ± 5.3 to 21.6 ± 5.5 (p<0.01) Normoxia: 14.9 ± 5.8 to 21.6 ± 4.5 (p<0.01)	SO ↔ Normoxia	
	<i>Fatigue</i>	SO: 15.5 ± 4.3 to 18.8 ± 3.9 Normoxia: 17.4 ± 4.8 to 20 ± 4.5	SO ↔ Normoxia	
	<i>Emotional function</i>	SO: 29.5 ± 7.1 to 35.3 ± 6.3 (p<0.01) Normoxia: 32 ± 6.9 to 35.2 ± 8.5	SO ↔ Normoxia	
	<i>Mastery</i>	SO: 18 ± 5.5 to 22.1 ± 3.3 (p<0.01) Normoxia: 20.4 ± 4.1 to 22.8 ± 3.7 (p<0.01)	SO ↔ Normoxia	
	<i>Total</i>	SO: 79 ± 18 to 98 ± 16 (p<0.01) Normoxia: 85 ± 16 to 100 ± 17 (p<0.01)	SO ↔ Normoxia	
Fichter et al. 1999	W_{max} [W]	SO: 65.4 ± 11.9 to 75.8 ± 21 Normoxia: 62.3 ± 23.8 to 86.3 ± 28.4 (p<0.05)	SO ↔ Normoxia	Safety: no exercise- or supplemental oxygen-related dropouts reported Attendance: Not reported
	VO_{2peak} [L · minute ⁻¹]	SO: 0.96 ± 0.14 to 1.12 ± 0.17 Normoxia: 1.11 ± 0.31 to 1.30 ± 0.45	SO ↔ Normoxia	
	HR_{peak} [beats · minute ⁻¹]	SO: 126 ± 6 to 138 ± 10 Normoxia: 115 ± 11 to 120 ± 8	SO ↔ Normoxia	
	BLa [mmol · L ⁻¹]	SO: 3.5 ± 0.9 to 3.6 ± 0.7 Normoxia: 3.98 ± 1.33 to 5.7 ± 1.1	SO ↔ Normoxia	
Garrod et al. 2000	SWT [m]	SO: PRE 160 ± 89.1, POST Δ +20 Normoxia: PRE 131 ± 103, POST Δ +43.63	SO ↔ Normoxia: -23.6 (95% CI: -70.7 to 23.5), p = 0.19	Safety: no exercise- or supplemental oxygen-related dropouts reported
	Dyspnoea (BORG 0-10)	SO: PRE 4.53 ± 1.12, POST Δ -1 Normoxia: PRE 3.83 ± 1.27, POST Δ +0.46	SO↓ vs. Normoxia: -1.46 (95% CI: -2.72 to -0.19), p = 0.02	
	CRDQ			
	<i>Dyspnoea</i>	SO: Δ +2.18; Normoxia: Δ +0.50	SO ↔ Normoxia: 1.68 (95% CI -1.04 to 4.4), p = 0.21	
	<i>Fatigue</i>	SO: Δ +1.27; Normoxia: Δ +0.37	SO ↔ Normoxia: 0.9 (95% CI -2.53 to 4.35), p = 0.58	
<i>Emotional function</i>	SO: Δ +4.27; Normoxia: Δ +2.55	SO ↔ Normoxia: 1.73 (95% CI -3.18 to 6.64), p = 0.47		

	<i>Mastery Total</i>	SO: $\Delta +1.54$; Normoxia: $\Delta +1.27$ SO: PRE 84.4 ± 21.2 , POST $\Delta +9.27$ Normoxia: PRE 77.9 ± 24.4 , POST $\Delta +5.6$	SO \leftrightarrow Normoxia: 0.27 (95% CI -2.11 to 2.65), p = 0.81 SO \leftrightarrow Normoxia: 3.67 (95% CI -7.7 to 15.1), p = 0.50	Attendance: Not reported
	HADS			
	<i>Anxiety Depression Total</i>	SO: $\Delta -0.09$; Normoxia: $\Delta -1.81$ SO: $\Delta -1.36$; Normoxia: $\Delta -1.36$ SO: PRE 13.5 ± 7.76 , POST $\Delta -1.46$ Normoxia: PRE 15.2 ± 9.9 , POST $\Delta -4.64$	SO \leftrightarrow Normoxia: 1.72 (95% CI -0.59 to 4.05), p = 0.13 SO \leftrightarrow Normoxia: 0.00 (95% CI -2.90 to 2.90), p = 0.49 SO \leftrightarrow Normoxia: 1.73 (95% CI -2.32 to 5.78), p = 0.38	
	LCADL			
	<i>Self-care Domestic Physical Leisure Total</i>	SO: $\Delta -2.09$; Normoxia: $\Delta -0.73$ SO: $\Delta -2.18$; Normoxia: $\Delta -2.27$ SO: $\Delta -1.00$; Normoxia: $\Delta -0.27$ SO: $\Delta -1.54$; Normoxia: $\Delta -1.36$ SO: PRE 36.3 ± 12.6 , POST $\Delta -6.82$ Normoxia: PRE 36.6 ± 14.4 , POST $\Delta -4.64$	SO \leftrightarrow Normoxia: -1.36 (95% CI -3.46 to 0.73), p = 0.19 SO \leftrightarrow Normoxia: 0.09 (95% CI -3.89 to 4.06), p = 0.96 SO \leftrightarrow Normoxia: -0.73 (95% CI -1.96 to 0.50), p = 0.23 SO \leftrightarrow Normoxia: -0.18 (95% CI -1.87 to 1.49), p = 0.82 SO \leftrightarrow Normoxia: -2.18 (95% CI -7.15 to 2.79), p = 0.37	
Wadell et al. 2001	HR _{peak} [beats · minute ⁻¹]	SO: 128 (104 - 142) to 128 (102 - 140), % Δ 4.9 Normoxia: 137 (102 - 142) to 144 (113-155), % Δ 5.4	SO \leftrightarrow Normoxia	Safety: no exercise- or supplemental oxygen-related dropouts reported Attendance: Not reported
	BLa [mmol · L ⁻¹]	SO: 1.208 ± 0.339 to 2.388 ± 0.708 (p<0.05) Normoxia: 1.204 ± 0.323 to 3.224 ± 1.799 (p<0.05)	SO \leftrightarrow Normoxia	
	6MWT [m]	SO: 210 (90 - 360) to 245 (140 - 380), % Δ 14.0 (p<0.01) Normoxia: 230 (110 - 280) to 270 (130 - 390), % Δ 19.8 (p<0.01)	SO \leftrightarrow Normoxia	
	RPE (BORG 6-20)	SO: 15 (9 - 19) to 15 (10 - 17), % Δ 5.5 Normoxia: 16.5 (13 - 19) to 15 (12 - 17), % Δ -15.5 (p<0.05)	SO \leftrightarrow Normoxia	
	Dyspnea (BORG 0-10)	SO: 6.5 (3 - 10) to 4.5 (3-9), % Δ -5.0 Normoxia: 6.5 (4 - 9) to 6 (1 - 7), % Δ 0	SO \leftrightarrow Normoxia	
Emtner et al. 2003	W _{max} [W]	SO: 54 ± 25 to 67 ± 24 (p<0.05) Normoxia: 54 ± 27 to 64 ± 29 (p<0.05)	SO \leftrightarrow Normoxia	Safety: no exercise- or supplemental oxygen-related dropouts reported
	VO _{2peak} [L · minute ⁻¹]	SO: 0.89 ± 0.22 to 0.93 ± 0.27 Normoxia: 0.91 ± 0.36 to 0.97 ± 0.32	SO \leftrightarrow Normoxia	
	HR _{peak} [beats · minute ⁻¹]	SO: 125 ± 22 to 128 ± 22 Normoxia: 125 ± 16 to 130 ± 19	SO \leftrightarrow Normoxia	Attendance: Overall 99.7%
	BLa [mmol · L ⁻¹]	SO: 4.2 ± 2.8 to 4.8 ± 2.3 Normoxia: 3.8 ± 1.8 to 4.6 ± 2.2	SO \leftrightarrow Normoxia	
	TTE [minutes]	SO: 6.6 ± 3.0 to 21.4 ± 10.1 (p<0.05) Normoxia: 5.8 ± 2.4 to 16.7 ± 8.0 (p<0.05)	SO \leftrightarrow Normoxia	
	Dyspnoea (BORG 0-10)	SO: 6.3 ± 2.5 to 6.7 ± 2.1 Normoxia: 5.8 ± 1.8 to 5.9 ± 1.5	SO \leftrightarrow Normoxia	
	Leg fatigue (BORG 0-10)	SO: 5.4 ± 2.4 to 4.6 ± 2.7 Normoxia: 5.3 ± 2.2 to 4.0 ± 2.4	SO \leftrightarrow Normoxia	
	CRDQ			
	<i>Dyspnoea Fatigue Emotional function Mastery Total</i>	SO: $\Delta +7$ (p<0.05); Normoxia: $\Delta +7$ (p<0.05) SO: $\Delta +5$ (p<0.05); Normoxia: $\Delta +4$ (p<0.05) SO: $\Delta +7$ (p<0.05); Normoxia: $\Delta +5$ (p<0.05) SO: $\Delta +5$ (p<0.05); Normoxia: $\Delta +4$ (p<0.05) SO: $\Delta +24$ (p<0.05); Normoxia: $\Delta +20$ (p<0.05)	SO \leftrightarrow Normoxia SO \leftrightarrow Normoxia SO \leftrightarrow Normoxia SO \uparrow (p<0.05) vs. Normoxia SO \leftrightarrow Normoxia	
	SF-36			
	<i>General health Vitality Physical functioning</i>	SO: $\Delta +11$ (p<0.05); Normoxia: not reported SO: $\Delta +14$ (p<0.05); Normoxia: $\Delta +13$ (p<0.05) SO: $\Delta +7$ (p<0.05); Normoxia: not reported	SO \uparrow (p<0.05) vs. Normoxia SO \leftrightarrow Normoxia SO \leftrightarrow Normoxia	

	<i>Role-Physical</i>	SO: $\Delta +23$ ($p<0.05$); Normoxia: not reported	SO \leftrightarrow Normoxia	
Karlsen et al. 2008	W_{max} [W]	SO: 123 ± 27 to 159 ± 37 ($p<0.05$) Normoxia: 155 ± 38 to 204 ± 21 ($p<0.05$)	SO \leftrightarrow Normoxia	Safety: no exercise- or supplemental oxygen-related dropouts reported Attendance: Supplemental oxygen: 29.6 ± 0.7 from 30 sessions Normoxia: 29.1 ± 1.1 from 30 sessions
	VO_{2peak} [L · minute ⁻¹]	SO: 2.11 ± 0.35 to 2.44 ± 0.48 ($p<0.05$) Normoxia: 2.17 ± 0.53 to 2.53 ± 0.61 ($p<0.05$)	SO \leftrightarrow Normoxia	
	HR_{peak} [beats · minute ⁻¹]	SO: 141 ± 19 to 152 ± 19 ($p<0.05$) Normoxia: 163 ± 19 to 160 ± 19	SO \leftrightarrow Normoxia	
	BLa [mmol · L ⁻¹]	SO: 3.61 ± 1.01 to 6.90 ± 1.57 ($p<0.05$) Normoxia: 4.3 ± 1.2 to 6.23 ± 1.8	SO \leftrightarrow Normoxia	
	RPE (BORG 6-20)	SO: 18 ± 1 to 18 ± 1 Normoxia: 15 ± 2 to 17 ± 1 ($p<0.05$)	PRE SO \uparrow vs. PRE Normoxia ($p<0.05$), SO vs. Normoxia \uparrow ($p<0.05$)	
	SF-36			
	<i>General health</i>	SO: not reported; Normoxia: not reported	Not reported	
	<i>Vitality</i>	SO: not reported; Normoxia: not reported	Not reported	
	<i>Physical functioning</i>	SO: not reported; Normoxia: not reported	Not reported	
	<i>Role-Physical</i>	SO: not reported; Normoxia: not reported	Not reported	
Macnew				
<i>Physical</i>	SO: $\% \Delta +10$ ($p<0.05$); Normoxia: $\% \Delta +13$ ($p<0.05$)	SO \leftrightarrow Normoxia		
<i>Emotional</i>	SO: not reported; Normoxia: not reported	SO \leftrightarrow Normoxia		
<i>Social</i>	SO: $\% \Delta +9$ ($p<0.05$); Normoxia: $\% \Delta +10$ ($p<0.05$)	SO \leftrightarrow Normoxia		
<i>Global</i>	SO: not reported; Normoxia: $\% \Delta +9$ ($p<0.05$)	SO \leftrightarrow Normoxia		
Bjørngen et al. 2009	One legged cycling			Safety: no exercise- or supplemental oxygen-related dropouts reported Attendance: Not reported
	W_{max} [W]	SO: 65 ± 40 to 85 ± 40 Normoxia: 55 ± 20 to 75 ± 30 ($p<0.05$)	SO \leftrightarrow Normoxia	
	VO_{2peak} [L · minute ⁻¹]	SO: 1.3 ± 0.68 to 1.46 ± 0.58 ($p<0.05$) Normoxia: 1.12 ± 0.43 to 1.32 ± 0.71 ($p<0.05$)	SO \leftrightarrow Normoxia	
	HR_{peak} [beats · minute ⁻¹]	SO: 153 ± 72 to 159 ± 36 Normoxia: 142 ± 54 to 136 ± 81	SO \leftrightarrow Normoxia	
	BLa [mmol · L ⁻¹]	SO: 5 ± 4.22 to 5.36 ± 4.63 Normoxia: 2.76 ± 1.62 to 3.56 ± 4.01	PRE SO \uparrow vs. PRE Normoxia ($p<0.05$) POST SO \uparrow vs. POST Normoxia ($p<0.05$)	
	RPE (BORG 6-20)	SO: 16 ± 3 to 17 ± 5 Normoxia: 16 ± 4 to 17 ± 1	SO \leftrightarrow Normoxia	
	Two legged cycling			
	W_{max} [W]	SO: 100 ± 70 to 120 ± 70 ($p<0.05$) Normoxia: 90 ± 40 to 110 ± 65 ($p<0.05$)	SO \leftrightarrow Normoxia	
	VO_{2peak} [L · minute ⁻¹]	SO: 1.44 ± 0.62 to 1.68 ± 0.82 ($p<0.05$) Normoxia: 1.42 ± 0.59 to 1.53 ± 0.74 ($p<0.05$)	SO \leftrightarrow Normoxia	
	HR_{peak} [beats · minute ⁻¹]	SO: 162 ± 48 to 160 ± 36 Normoxia: 148 ± 69 to 142 ± 79	SO \leftrightarrow Normoxia	
BLa [mmol · L ⁻¹]	SO: 6.92 ± 5.25 to 4 ± 4.74 Normoxia: 2.44 ± 2.45 to 3.76 ± 2.52	SO vs. Normoxia \uparrow ($p<0.05$)		
RPE (BORG 6-20)	SO: 17 ± 3 to 17 ± 5 Normoxia: 17 ± 1 to 19 ± 1	SO \leftrightarrow Normoxia		
Scorsone et al. 2010	W_{max} [W]	SO: 67 ± 21 to 76 ± 25 ($p<0.01$) Normoxia: 82 ± 33 to 92 ± 35 ($p<0.01$)	SO \leftrightarrow Normoxia: $p = 0.372$	Safety: no exercise- or

	VO _{2peak} [L · minute ⁻¹]	SO: 0.95 ± 0.31 to 1.05 ± 0.30 Normoxia: 1.35 ± 0.60 to 1.41 ± 0.57	SO ↔ Normoxia: p = 0.159	supplemental oxygen-related dropouts reported Attendance: Not reported
	HR _{peak} [beats · minute ⁻¹]	SO: 119 ± 25 to 118 ± 21 Normoxia: 119 ± 19 to 120 ± 15	SO ↔ Normoxia: p = 0.850	
	TTE [minutes]	SO: Δ +6.9 ± 4.4 (p<0.05) Normoxia: Δ +7.6 ± 4.9 (p<0.02)	SO ↔ Normoxia: p = 0.635	
	Dyspnoea (BORG 0-10)	SO: 7 ± 3 to 6 ± 3 Normoxia: 7 ± 3 to 4 ± 2	SO ↔ Normoxia: p = 0.147	
	Leg fatigue (BORG 0-10)	SO: 9 ± 1 to 7 ± 2 Normoxia: 8 ± 2 to 7 ± 2	SO ↔ Normoxia: p = 0.799	
Ringbaek et al. 2013	Week 0-7 ESWT [m]	SO: 119.6 ± 75.7 to 168 ± 183 (p<0.01) Normoxia: 148.5 ± 88.7 to 167 ± 239 (p<0.01)	SO ↔ Normoxia: p = 0.77	Safety: no exercise- or supplemental oxygen-related dropouts reported Attendance: Overall: 88%; Supplemental oxygen: 89%; Normoxia: 87% In first 7 weeks
	SGRQ <i>Symptoms</i> <i>Activity</i> <i>Impacts</i> <i>Total</i>	SO: not reported; Normoxia: not reported SO: not reported; Normoxia: not reported SO: not reported; Normoxia: not reported SO: PRE 62.1 ± 12.4, POST Δ -1.8 ± 8.0 Normoxia: 58.4 ± 11.9, POST Δ -3.2 ± 7.2	SO ↔ Normoxia: p = 0.80	
	Week 0-20 ESWT [m]	SO: 119.6 ± 75.7 to 170 ± 257 (p<0.01) Normoxia: 148.5 ± 88.7 to 184 ± 314 (p<0.01)	SO ↔ Normoxia: p = 0.83	
	SGRQ week 0-20 <i>Symptoms</i> <i>Activity</i> <i>Impacts</i> <i>Total</i>	SO: not reported; Normoxia: not reported SO: not reported; Normoxia: not reported SO: not reported; Normoxia: not reported SO: PRE 62.1 ± 12.4, POST Δ -3.5 ± 7.2 Normoxia: 58.4 ± 11.9, POST Δ -2.9 ± 8.6	SO ↔ Normoxia: p = 0.81	
Spielmanns et al. 2015	W _{max} [W]	SO: 52.6 ± 24.6 to 63 ± 26.9 (p<0.001) to 63.7 ± 33.7 (p<0.005) Normoxia: 54.9 ± 22.4 to 68.4 ± 26.9 (p<0.001) to 68.7 ± 25.7 (p<0.004)	SO ↔ Normoxia	Safety: no exercise- or supplemental oxygen-related dropouts reported Attendance: Not reported however it was stated that participation had to be 80%
	VO _{2peak} [ml · kg ⁻¹ · minute ⁻¹]	SO: 13.9 ± 3 to 15.3 ± 3.4 (p<0.005) to 15.5 ± 4.2 (p<0.08) Normoxia: 13.9 ± 2.7 to 14.8 ± 3.5 (p<0.15) to 14.7 ± 4.1 (p<0.71)	SO ↔ Normoxia	
	BLa [mmol · L ⁻¹]	SO: 3.3 ± 0.93 to 2.9 ± 0.93 to 3.0 ± 0.89 Normoxia: 3.2 ± 0.72 to 3.1 ± 0.74 to 2.7 ± 0.82	SO ↔ Normoxia	
	6MWT [m]	SO: 574 ± 98 to 630 ± 88 (p<0.002) to 647 ± 99 (p<0.001) Normoxia: 551 ± 106 to 621 ± 76 (p<0.001) to 635 ± 63	SO ↔ Normoxia	
	SF-36 <i>General Health</i> <i>Vitality</i> <i>Physical functioning</i> <i>Role-Physical</i> <i>Mental Health</i> <i>Role-Emotional</i> <i>Bodily pain</i> <i>Social functioning</i>	only graphical; exact values not reported only graphical; exact values not reported only graphical; exact values not reported only graphical; exact values not reported only graphical; exact values not reported only graphical; exact values not reported only graphical; exact values not reported only graphical; exact values not reported	SO ↔ Normoxia SO ↔ Normoxia SO ↔ Normoxia SO ↔ Normoxia SO ↔ Normoxia SO ↔ Normoxia SO ↔ Normoxia SO ↔ Normoxia	
Neunhäuserer et al. 2016	W _{max} [W]	SO: 79.3 ± 30.8 to 94.0 ± 32.3 (p<0.01) Normoxia: 91.7 ± 31.8 to 100.5 ± 33.1 (p<0.01)	SO ↑ (0.024) vs. Normoxia	Safety: no exercise- or supplemental oxygen-related
	VO _{2peak} [ml · kg ⁻¹ · minute ⁻¹]	SO: 18.6 ± 3.6 to 20.9 ± 3.5 (p<0.05) Normoxia: 18.3 ± 4.0 to 19.8 ± 4.4 (p<0.05)	SO ↔ Normoxia	

	HR _{peak} [beats · minute ⁻¹]	SO: 132.2 ± 19.4 to 140.4 ± 18.2 Normoxia: 124.3 ± 15.7 to 128.7 ± 15.9	SO ↔ Normoxia	dropouts reported
	BLa [mmol · L ⁻¹]	SO: 3.8 ± 1.2 to 5.3 ± 1.9 Normoxia: 3.8 ± 1.4 to 4.6 ± 1.9	SO ↔ Normoxia	Attendance: Not reported
	10-RM [kg]	No data provided before crossover	No data provided before crossover	Attendance: Not reported
	HADS			
	Anxiety	No data provided before crossover	No data provided before crossover	
	Depression	No data provided before crossover	No data provided before crossover	
Alison et al. 2019	ESWT [sec]	SO: 327 ± 191 to 500 ± 361 (p<0.05) Normoxia: 319 ± 139 to 456 ± 308 (p<0.05)	SO ↔ Normoxia: 15 (95% CI: -106 to 136)	Safety: Supplemental oxygen: n = 1 atrial fibrillation during training Normoxia: n = 1 mild stroke after finishing treadmill training session Attendance: Not reported but patients had to complete 16 sessions (66%) to be included for analysis Supplemental oxygen: n = 48 Normoxia: n = 41
	ISWT [m]	SO: 287 ± 121 to 326 ± 128 (p<0.05) Normoxia: 285 ± 124 to 304 ± 132 (p<0.05)	SO ↔ Normoxia: 5 (95% CI: -14 to 25)	
	CRDQ			
	Dyspnoea	SO: 3.2 ± 1.0 to 3.8 ± 1.2 (p<0.05) Normoxia: 2.9 ± 1.0 to 3.5 ± 1.1 (p<0.05)	SO ↔ Normoxia: 0.1 (95% CI: -0.3 to 0.5)	
	Fatigue	SO: 4.0 ± 1.1 to 4.5 ± 1.1 (p<0.05) Normoxia: 3.5 ± 1.3 to 4.2 ± 1.3 (p<0.05)	SO ↔ Normoxia: 0.03 (95% CI: -0.4 to 0.5)	
	Emotional function	SO: 4.8 ± 1.1 to 5.2 ± 1.1 (p<0.05) Normoxia: 4.8 ± 1.2 to 5.0 ± 1.2	SO ↔ Normoxia: 0.2 (95% CI: -0.2 to 0.5)	
	Mastery	SO: 5.0 ± 1.2 to 5.3 ± 1.2 (p<0.05) Normoxia: 5.0 ± 1.4 to 5.4 ± 1.2 (p<0.05)	SO ↔ Normoxia: -0.1 (95% CI: -0.5 to 0.3)	
	Total	SO: 4.3 ± 0.8 to 4.7 ± 0.9 (p<0.05) Normoxia: 4.1 ± 1.0 to 4.6 ± 0.9 (p<0.05)	SO ↔ Normoxia: 0.0 (95% CI: -0.3 to 0.3)	
	Dyspnoea-12			
	Physical	SO: 11 ± 6 to 9 ± 5 (p<0.05) Normoxia: 12 ± 6 to 11 ± 6	SO ↔ Normoxia: -1.2 (95% CI: -2.9 to 0.5)	
	Affective	SO: 5 ± 4 to 4 ± 4 Normoxia: 5 ± 5 to 5 ± 5	SO ↔ Normoxia: -0.9 (95% CI: -2.2 to 0.4)	
	Total	SO: 15 ± 9 to 13 ± 9 (p<0.05) Normoxia: 17 ± 9 to 17 ± 9	SO ↔ Normoxia: -1.9 (95% CI: -4.5 to 0.7)	

6MWT 6-minute walking test; 10-RM ten repetition maximum; BLa blood lactate concentration; CRDQ Chronic Respiratory Disease Questionnaire; Dyspnoea-12 Dyspnoea-12 questionnaire; ESWT endurance shuttle walk test; HADS Hospital Anxiety and Depression Scale; HR_{peak} peak heart rate; ISWT incremental shuttle walk test; LCADL London Chest Activity of Daily Living Scale; Macnew Heart Disease Health-related Quality of Life Questionnaire; RPE rating of perceived exertion; SF-36 36-Item Short Form Health Survey; SGRQ St. George's Respiratory Questionnaire; SWT shuttle walk test; SO supplemental oxygen; TTE time to exhaustion; VO_{2peak} peak oxygen consumption; W_{max} maximal watt