

Does exercise-based cardiac rehabilitation improve quality of life in coronary artery disease? A contemporary systematic review and meta-analysis

Supplementary appendix 3. Summary of health-related quality of life for trials not meta-analysed

Short-term follow-up (0-6 months)

Measure of HRQL	Mean (SD) outcome values at follow-up		P	Between groups difference
	<i>Exercise</i>	<i>Usual Care</i>		
Belardinelli 2001				
MOS short-form (20 item) at 6-month follow-up:				
Physical function	78 (19)	55 (20)	0.001	Exercise > Usual care
Role physical	75 (13)	65 (14)	0.01	Exercise > Usual care
Bodily pain	4 (9)	22 (10)	0.001	Exercise > Usual care
General health	68 (14)	50 (19)	0.001	Exercise > Usual care
Social function	66 (10)	69 (12)	NS	Exercise = Usual care
Mental health	65 (12)	48 (15)	0.01	Exercise > Usual care
Total score	348 (77)	265 (90)	0.01	Exercise > Usual care
Duke Activity Index at 6-month follow-up:				
Score	52 (10)	45 (11)	0.001	Exercise > Usual care
Briffa 2005				
SF-36 at 6-month follow-up:				
	Δ (95% CI)	Δ (95% CI)		
Physical function	15.9 (−8 to 23)	7.1 (1 to 13)	NS	Exercise = Usual care
Role physical	75 (0 to 100)	75 (0 to 100)	NS	Exercise = Usual care
Bodily pain	26.6 (18 to 35)	19.2 (11 to 27)	NS	Exercise = Usual care
General health	0.1 (−6 to 6)	− 0.6 (−5 to 4)	NS	Exercise = Usual care
Vitality	7.1 (1 to 13)	3.7 (−2 to 9)	NS	Exercise = Usual care
Social function	19.6 (10 to 29)	14.1 (7 to 21)	NS	Exercise = Usual care
Role emotional	33.3 (0 to 100)	33.3 (33 to 100)	NS	Exercise = Usual care
Mental health	0.5 (−4 to 5)	1.4 (−3 to 5)	NS	Exercise = Usual care
Devi 2014				
Seattle Angina Questionnaire at 6-week follow-up:				
Physical score	0.29 (−0.11 to 0.43) [#]		0.24	Exercise = Usual care
Emotional score	0.46 (−0.02 to 0.62) [#]		0.06	Exercise = Usual care

Houle 2012**Quality of Life Index-cardiac version III at 6-month follow-up:**

Health and functional score	26 (5.1)	24.5 (5.3)	0.048	Exercise > Usual care
Psychological/spiritual score	25.6 (5.8)	25.5 (3.8)	0.383	Exercise = Usual care
Social and economic score	25.7 (3.8)	25.4 (4.7)	0.392	Exercise = Usual care
Family score	28.1 (2.5)	26.7 (4.3)	0.048	Exercise > Usual care
Overall	26.2 (4.3)	25.8 (4.1)	0.057	Exercise = Usual care

Sandstrom 2005**Time Trade Off (TTO) at 3-month follow-up:**

0.84 (0.24)	0.85 (0.21)	NS	Exercise = Usual care
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EuroQol Part two at 3-month follow-up:

7.72 (1.61)	7.51 (1.71)	NS	Exercise = Usual care
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Santaularia 2017**EQ-5D at 3-month follow-up:**

		n	n		
Mobility	No problems	34	37	<0.05	Exercise > Usual care
	Problems	6	7		
Self-care	No problems	39	43	NS	Exercise = Usual care
	Problems	1	1		
Usual activities	No problems	32	31	NS	Exercise = Usual care
	Problems	8	13		
Pain/discomfort	No problems	29	26	NS	Exercise = Usual care
	Problems	11	18		
Anxiety/depression	No problems	26	22	NS	Exercise = Usual care
	Problems	14	22		

Wang 2012**MIDAS at 3-month follow-up**

Physical Activity	37.6 (11.3)	43.5 (12.3)	<0.001	Exercise > Usual care
Insecurity	29.5 (10.6)	33.9 (13.5)	<0.001	Exercise > Usual care
Emotional reaction	31.9 (13.9)	33.8 (15.4)	0.008	Exercise > Usual care
Dependency	28.2 (10.6)	33.6 (15.2)	0.001	Exercise > Usual care
Diet	38.8 (16.0)	42.6 (19.8)	0.40	Exercise = Usual care
Concerns over med.	31.6 (15.1)	39.2 (19.7)	<0.001	Exercise > Usual care
Side Effects	31.9 (13.2)	31.8 (15.8)	0.30	Exercise > Usual care

MIDAS at 6-month follow-up

Physical Activity	37.7 (11.2)	42.6 (12.3)	<0.001	Exercise > Usual care
Insecurity	28.7 (9.7)	33.4 (13.8)	<0.001	Exercise > Usual care
Emotional reaction	30.4 (12.8)	34.8 (14.4)	0.008	Exercise > Usual care
Dependency	27.6 (9.4)	31.8 (16.6)	0.001	Exercise > Usual care
Diet	36.8 (15.4)	43.6 (20.7)	0.40	Exercise = Usual care
Concerns over med.	29.4 (12.6)	37.7 (18.0)	<0.001	Exercise > Usual care
Side Effects	28.2 (11.1)	30.8 (14.3)	0.30	Exercise > Usual care

Medium-term follow-up (8-12 months)

Measure of HRQL	Mean (SD) outcome values at follow-up		P	Between groups difference
	<i>Exercise</i>	<i>Usual Care</i>		

Belardinelli 2001**MOS short-form (20 item) at 12-month follow-up:**

Physical function	82 (18)	54 (20)	0.001	Exercise > Usual care
Role physical	76 (9)	58 (14)	0.01	Exercise > Usual care
Bodily pain	4 (9)	32 (12)	0.001	Exercise > Usual care
General health	70 (14)	50 (18)	0.001	Exercise > Usual care
Social function	68 (11)	68 (12)	NS	Exercise = Usual care
Mental health	70 (14)	45 (15)	0.001	Exercise > Usual care
Total score	362 (75)	242 (91)	0.001	Exercise > Usual care

Duke Activity Index at 12-month follow-up:

Score	53 (12)	35 (13)	0.001	Exercise > Usual care
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Briffa 2005**SF-36 at 1-year follow-up:**

Physical function	17.6 (10 to 25)	6.8 (-1 to 14)	0.04	Exercise > Usual care
Role physical	100 (0 to 100)	75 (12 to 30)	NS	Exercise = Usual care
Bodily pain	30.2 (23 to 37)	20.9 (-2 to 7)	NS	Exercise = Usual care
General health	2.7 (-3 to 5)	2.2 (-2 to 7)	NS	Exercise = Usual care
Vitality	11.9 (6 to 18)	6.9 (1 to 12)	NS	Exercise = Usual care
Social function	23.6 (14 to 33)	16.4 (9 to 23)	NS	Exercise = Usual care
Role emotional	33.3 (33 to 100)	33.3 (33 to 100)	NS	Exercise = Usual care
Mental health	3.6 (-1 to 9)	3.9 (0 to 8)	NS	Exercise = Usual care

Hautala 2016**15 D instrument at 12-month follow-up:**

	Δ mean	Δ mean		
Utility score	-0.008	-0.020	NS	Exercise = Usual care

Houle 2012**Quality of Life Index-cardiac version III at 12-month follow-up:**

Health and functional score	27.8 (2.0)	25.3 (4.6)	0.036	Exercise > Usual care
Psychological/spiritual score	27.4 (2.5)	26.2 (4.0)	0.336	Exercise = Usual care
Social and economic score	27.2 (3.0)	25.9 (5.2)	0.638	Exercise = Usual care
Family score	28.0 (2.6)	26.8 (5.0)	0.092	Exercise = Usual care
Overall	27.7 (2.1)	25.7 (4.2)	0.048	Exercise > Usual care

Reid 2012**MacNew at 12-month follow-up:**

Global score	5.8 (0.6)	5.6 (0.8)	NS	Exercise = Usual care
Emotional subscale	5.6 (0.6)	5.4 (0.7)	<0.05	Exercise > Usual care
Social subscale	6.3 (0.8)	6.0 (1.0)	NS	Exercise = Usual care
Physical subscale	6.0 (0.8)	5.8 (1.0)	<0.05	Exercise > Usual care

Sandstrom 2005**Time Trade Off (TTO) at 12-month follow-up:**

0.86 (0.23)	0.85 (0.21)	NS	Exercise = Usual care
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EuroQol Part one at 12-month follow-up:

0.87 (0.15)	0.86 (0.16)	NS	Exercise = Usual care
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EuroQol Part two at 12-month follow-up:

7.6 (1.46)	7.43 (1.46)	NS	Exercise = Usual care
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Salavati 2015**Macnew at 2-month follow-up**

All reported values exceed measurable range of instrument

Santaularia 2017**EQ-5D at 12-month follow-up:**

Mobility	No problems	33	33	<0.05	Exercise > Usual care
	Problems	6	11		
Self-care	No problems	38	43	NS	Exercise = Usual care

	Problems	1	1		
Usual activities	No problems	32	31	NS	Exercise = Usual care
	Problems	7	13		
Pain/discomfort	No problems	28	26	NS	Exercise = Usual care
	Problems	11	18		
Anxiety/depression	No problems	22	26	NS	Exercise = Usual care
	Problems	17	18		

NS, not significant; med, medication

between groups difference reported

Exercise = Usual care, no statistically significant difference ($P > 0.05$) between exercise and usual care groups at follow-up

Exercise > Usual care: statistically significant difference ($P < 0.05$) between exercise and usual care groups at follow-up