Systematic review and meta-analysis of protein intake to support muscle mass and function in healthy adults

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Sensitivity analysis

Supplementary table 6 – Sensitivity analysis lean body mass

Lean Body Mass	**Main-effects**	**IC95%**
Meta-analysis results - All RCT	***0.22***	***0.15:0.30***
	Results excluding a given study	
Taylor et al. 2016	0.21	0.14:0.29
Willoughby et al. 2007	0.21	0.14:0.28
Meta-analysis results – RCT with Resistance Exercise(RE)	***0.22***	***0.14:0.30***
	Results excluding a given study	
Taylor et al. 2016	0.21	0.14:0.29
Willoughby et al. 2007	0.21	0.13:0.28
Meta-analysis results – RCT with RE by Age (Young)	***0.26***	***0.16:0.35***
	Results excluding a given study	
Taylor et al. 2016	0.25	0.15:0.34
Willoughby et al. 2007	0.24	0.15:0.33
Meta-analysis results – RCT with RE reporting protein ingestion	***0.19***	***0.11:0.28***
	Results excluding a given study	
Taylor et al. 2016	0.19	0.10:0.27
Willoughby et al. 2007	0.18	0.10:0.26
Meta-analysis results – RCT with RE reporting protein ingestion (1.2-1.59g/kg/day) Young	***0.15***	*-0.02:0.31*
	Results excluding a given study	
Taylor et al. 2016	0.12	-0.04:0.28
Meta-analysis results – RCT with RE reporting protein ingestion (1.2-1.59g/kg/day) Old	**0.20**	***0.02:0.37***
	Results excluding a given study	
Nakayama et al. 2020	0.12	-0.08:0.32
van Dongen et al. 2020	0.23	0.02:0.44

Supplementary table 7 – Sensitivity analysis bench press strength

Bench Press Strength	Main-effects	IC95%
Meta-analysis results - All RCT	***0.20***	***0.06:0.34***
	Results excluding a given study	
Obradovic et al. 2020	0.17	0.05:0.30
Taylor et al. 2016	0.19	0.05:0.32
Vangsoe et al. 2018	0.22	0.09:0.34
Willoughby et al. 2007	0.17	0.05:0.30
Meta-analysis results – RCT with Resistance Exercise(RE)	***0.18***	***0.04:0.32***
	Results excluding a given study	
Obradovic et al. 2020	0.15	0.03:0.28
Taylor et al. 2016	0.17	0.04:0.30
Vangsoe et al. 2018	0.20	0.07:0.32
Willoughby et al. 2007	0.15	0.03:0.28
Meta-analysis results – RCT with RE reporting protein ingestion	***0.15***	***0.02:0.28***
	Results excluding a given study	
Taylor et al. 2016	0.13	0.01:0.26
Vangsoe et al. 2018	0.16	0.05:0.28
Willoughby et al. 2007	0.12	0.01:0.24
Meta-analysis results – RCT with RE reporting protein ingestion betwee 1.2 and 1.59/kg/day)	***0.17***	***-0.01:0.35***
	Results excluding a given study	
Taylor et al. 2016	0.14	-0.02:0.31
Meta-analysis results – RCT with RE reporting protein ingestion (≥1.6g/kg/day)	***0.13***	***-0.15:0.41***
	Results excluding a given study	
Vangsoe et al. 2018	0.17	0.00:0.34
Willoughby et al. 2007	0.08	-0.08:0.25

Supplementary table 8 – Sensitivity analysis lower body strength

Lower body Strength	Main-effects	IC95%
Meta-analysis results - All RCT	***0.20***	***0.08:0.33***
	Results excluding a given study	
Aas et al. 2020	0.18	0.06:0.30
Burke et al. 2001	0.18	0.06:0.30
Chale et al. 2013	0.21	0.08:0.34
Obradovic et al. 2020	0.18	0.06:0.29
Meta-analysis results – RCT with Resistance Exercise(RE)	***0.21***	***0.08:0.34***
	Results excluding a given study	
Aas et al. 2020	0.19	0.06:0.30
Burke et al. 2001	0.18	0.06:0.31
Chale et al. 2013	0.22	0.08:0.35
Obradovic et al. 2020	0.18	0.06:0.30
Meta-analysis results – RCT with RE by Age	***0.19***	***0.03:0.36***
	Results excluding a given study	
Burke et al. 2001	0.16	-0.00:0.32
Obradovic et al. 2020	0.15	0.00:0.30
Meta-analysis results – RCT with RE reporting protein ingestion (≥1.6g/kg/day)	***0.40***	***0.23:0.57***
	Results excluding a given study	
Burke et al. 2001	0.34	0.22:0.47

Supplementary table 9 – Sensitivity analysis handgrip strength

Handgrip	Main-effects	IC95%
Meta-analysis results	***0.15***	***-0.03:0.32***
	Results excluding a given study	
Zhu et al. 2015	0.16	-0.03:0.35
Nakayama et al. 2020	0.11	-0.07:0.28

Supplementary table 10 – Sensitivity analysis physical function

Physical Function	Main-effects	IC95%
Meta-analysis results	***0.15***	***0.00:0.29***
	Results excluding a given study	
Aas et al., 2020	0.13	0.02:0.25
Nahas et al., 2019	0.14	0.03:0.25
Nakayama et a., 2020	0.14	0.04:0.24
Van Dongen et al., 2020	0.14	0.01:0.26