**Supplemental Digital Content 9. Exploratory Subgroup Analyse**

NOTE: Weights are from random effects analysis

Overall (I-squared = 18.1%, p = 0.282)

Van Gammeren et al., 2002

ID

Weiss and Mueller, 1968

Van Gammeren et al., 2001

Study

Giorgi et al., 1999

Granados et al., 2014

Ariel, 1974

O'Shea and Winkler, 1974

Loughton and Ruhling, 1977

Rogerson et al., 2007

0.55 (0.17, 0.92)

0.02 (-1.22, 1.26)

SMD (95% CI)

0.02 (-0.67, 0.72)

0.32 (-0.71, 1.34)

0.49 (-0.38, 1.37)

1.17 (0.13, 2.21)

1.87 (0.32, 3.41)

1.29 (0.27, 2.32)

0.17 (-0.97, 1.30)

0.48 (-0.57, 1.53)

100.00

7.96

Weight

19.84

11.04

%

14.25

10.71

5.40

10.95

9.28

10.57

0.55 (0.17, 0.92)

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Weight

19.84

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%

14.25

10.71

5.40

10.95

9.28

10.57

0

-3

-2

-1

0

1

2

3

SMD in Change in Strength for Studies Requiring

1 Year of Resistance Training For Enrollment

NOTE: Weights are from random effects analysis

Overall (I-squared = 0.0%, p = 0.541)

Johnson et al., 1975

Kvorning et al., 2013

Bhasin et al., 1996

King et al., 1999

Igwebuike et al., 2008

Villareal and Holloszy, 2006

Fahey and Brown, 1973

Broeder et al., 2000

Brown et al., 1999

Ward, 1973

Stromme et al., 1974

Hildreth et al., 2013

Study

ID

0.15 (-0.06, 0.37)

0.12 (-0.98, 1.21)

-0.63 (-1.72, 0.45)

0.57 (-0.33, 1.47)

-0.08 (-0.98, 0.82)

-0.33 (-1.08, 0.41)

0.36 (-0.20, 0.92)

0.54 (-0.21, 1.30)

-0.05 (-0.63, 0.52)

-0.08 (-0.98, 0.82)

1.06 (0.01, 2.12)

0.15 (-0.71, 1.00)

0.17 (-0.33, 0.68)

SMD (95% CI)

100.00

3.94

3.96

5.79

5.78

8.43

14.99

8.18

14.07

5.78

4.21

6.38

18.49

%

Weight

0.15 (-0.06, 0.37)

0.12 (-0.98, 1.21)

-0.63 (-1.72, 0.45)

0.57 (-0.33, 1.47)

-0.08 (-0.98, 0.82)

-0.33 (-1.08, 0.41)

0.36 (-0.20, 0.92)

0.54 (-0.21, 1.30)

-0.05 (-0.63, 0.52)

-0.08 (-0.98, 0.82)

1.06 (0.01, 2.12)

0.15 (-0.71, 1.00)

0.17 (-0.33, 0.68)

SMD (95% CI)

100.00

3.94

3.96

5.79

5.78

8.43

14.99

8.18

14.07

5.78

4.21

6.38

18.49

%

Weight

0

-3

-2

-1

0

1

2

3

SMD in Change in Strength for Studies Not Requiring

1 Year of Resistance Training for Enrollment

NOTE: Weights are from random effects analysis

Overall (I-squared = 18.7%, p = 0.296)

Granados et al., 2014

Van Marken Lichtenbelt et al., 2004

Kuipers et al., 1991

Study ID

Van Gammeren et al., 2001

Van Gammeren et al., 2002

0.81 (0.25, 1.36)

1.26 (0.21, 2.31)

0.92 (-0.12, 1.97)

0.64 (-0.44, 1.73)

SMD (95% CI)

-0.05 (-1.07, 0.96)

1.68 (0.19, 3.17)

100.00

21.83

22.12

20.70

Weight

23.18

%

12.18

0

-3

-2

-1

0

1

2

3

SMD in Change in Lean Mass for Studies Requiring

1 Year of Resistance Training for Enrollment

NOTE: Weights are from random effects analysis

Overall (I-squared = 33.6%, p = 0.149)

Ward, 1973

Igwebuike et al., 2008

Hildreth et al., 2013

King et al., 1999

Study

Broeder et al., 2000

ID

Bhasin et al., 1996

Baume et al., 2006

Fahey and Brown, 1973

Brown et al., 1999

0.56 (0.24, 0.88)

1.70 (0.53, 2.86)

0.26 (-0.48, 1.01)

1.03 (0.50, 1.56)

-0.00 (-0.90, 0.90)

0.36 (-0.22, 0.94)

SMD (95% CI)

1.16 (0.20, 2.11)

0.21 (-0.61, 1.03)

0.42 (-0.33, 1.17)

0.22 (-0.68, 1.12)

100.00

6.11

11.87

17.45

9.12

%

15.90

Weight

8.31

10.44

11.73

9.07

0.56 (0.24, 0.88)

1.70 (0.53, 2.86)

0.26 (-0.48, 1.01)

1.03 (0.50, 1.56)

-0.00 (-0.90, 0.90)

0.36 (-0.22, 0.94)

SMD (95% CI)

1.16 (0.20, 2.11)

0.21 (-0.61, 1.03)

0.42 (-0.33, 1.17)

0.22 (-0.68, 1.12)

100.00

6.11

11.87

17.45

9.12

%

15.90

Weight

8.31

10.44

11.73

9.07

0

-2

-1

0

1

2

SMD in Change in Lean Mass for Studies Not Requiring

1 Year of Resistance Training for Enrollment





