**Supplementary Digital Content 6: Studies included in fasting acylated ghrelin analysis (n = 138)**

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| **Reference** | **Participants (all healthy males)** | **Exercise** | **Fasting Plasma Acylated Ghrelin (pg/mL)** |
| **Broom et al (Unpublished)**Data available on request | *n* = 9; age 23.2 ± 2.1 y; BMI 22.8 ± 1.5 kg/m2; V̇O2 peak 63.4 ± 5.8 mL/kg/min | Treadmill running; 90 min; 69.7 ± 2.2 % V̇O2 peak ; Net EE 5473 ± 699 kJ | CON: 159 ± 140EX: 153 ±128*P* = 0.734 |
| **Broom et al (2006) *J Sports Sci (abstract)****Control & high-intensity trial used only* | *n* = 8; age 21.5 ± 1.7 y; BMI 24.7 ± 2.5 kg/m2; V̇O2 peak 57.3 ± 5.2 mL/kg/min | Treadmill running; 30 min; 75.3 ± 4.6 % V̇O2 peak ; Net EE 2151 ± 481 kJ | CON: 67 ± 32EX: 79 ± 42*P* = 0.056 |
| **Broom et al (2007) *J Appl Physiol***doi:10.1152/japplphysiol.00759.2006. | *n* = 9; age 21.2 ± 2.1 y; BMI 22.2 ± 2.4 kg/m2; V̇O2 peak 63.3 ± 6.7 mL/kg/min | Treadmill running; 60 mins; 71.9 ± 6.2 % V̇O2 peak ; Net EE 3603 ± 618 kJ | CON: 150 ± 169EX: 137 ± 140*P* = 0.274 |
| **Broom et al (2009) *Am J Physiol Reg-I***doi: 10.1152/ajpregu.90706.2008 | *n* = 11; age 21.1 ± 1.1 y; BMI 23.1 ± 1.3 kg/m2; V̇O2 peak 61.2 ± 6.4 mL/kg/min | Treadmill running; 60 mins; 68.9 ± 5.6 % V̇O2 peak ; Net EE 3469 ± 272 kJ | CON: 111 ±115EX: 116 ±111*P* = 0.599 |
| **King et al (2010) *Appetite***doi: 10.1016/j.appet.2010.02.002 | *n* = 9; age 22.2 ± 2.5 y; BMI 23.6 ± 1.1 kg/m2; V̇O2 peak 60.5 ± 4.5 mL/kg/min | Treadmill running; 90 min; 68.8 ± 2.3% V̇O2 peak ; Net EE 5324 ± 559 kJ | CON: 147 ± 59EX: 130 ± 45*P* = 0.104 |
| **King et al (2010) *Med Sci Sports Exerc***doi:10.1249/MSS.0b013e3181ba10c4 | *n* = 8; age 21.7 ± 1.8 y; BMI 23.7 ± 2.4 kg/m2; V̇O2 peak 54.7 ± 7.1 mL/kg/min | Treadmill brisk walking; 60 min; 45.8 ± 6.9% V̇O2 peak ; Net EE 2046 ± 460 kJ | CON: 76 ±23EX: 72 ± 15*P* = 0.563 |
| **King et al (2011) *J Clin Endocrinol Metab****Control & exercise trial used only*doi: 10.1210/jc.2010-2735 | *n* = 12; age 23.4 ± 3.4; BMI 22.8 ± 1.2 kg/m2; V̇O2 peak 57.3 ± 4.1 mL/kg/min | Treadmill running; 90 min; 69.8 ± 3.1 % V̇O2 peak ; Net EE 4716 ± 391 kJ | CON: 162 ± 128EX: 162 ± 121*P* = 0.993 |
| **King et al (2011) *J Obes***doi: 10.1155/2011/351628 | *n* = 9; age 21.8 ± 2.5 y; BMI 23.5 ± 2.3 kg/m2 | Swimming; 42 min (6 x 7 min bouts); HR 156 ± 18 beat/min; Net EE 2001 ± 306 kJ | CON: 105 ± 32EX: 112 ± 42*P* = 0.342 |
| **Wasse et al (2012) *J Appl Physiol****Sea-level control and sea-level exercise trials used only*doi: 10.1152/japplphysiol.00090.2011 | *n* = 10; age 23.8 ± 2.6 y; BMI 24.8 ± 2.4 kg/m2; V̇O2 peak 56.9 ± 6.5 mL/kg/min | Treadmill running; 60 min; 71.21 ± 5.7% V̇O2 peak ; Net EE 3278 ± 428 kJ | CON: 132 ± 106EX: 114 ± 86*P* = 0.094 |
| **King et al (2013) *Appetite***doi: 10.1016/j.appet.2012.10.018 | *n* = 10; age 21.3 ± 2.1 y; BMI 23.9 ± 2.3 kg/m2; V̇O2 peak 61.5 ± 4.8 mL/kg/min | Treadmill running; 60 min; 71.8 ± 4.8% V̇O2 peak ; Net EE 4117 ± 369 kJ | CON: 102 ± 40EX: 98 ± 52*P* = 0.748 |
| **Wasse et al (2013) *Appl Physiol Nutr Metab****Control & running trial used only*doi: 10.1139/apnm-2012-0154 | *n* = 11; age 22.7 ± 2.2 y; BMI 23.4 ± 2.4 kg/m2; V̇O2 peak 57.8 ± 10.0 mL/kg/min | Treadmill running; 60 min; 70.1 ± 4.0% V̇O2 peak ; Net EE 2940 ± 786 kJ | CON: 173 ± 127EX: 157 ± 109*P* = 0.167 |
| **Deighton et al (2014) *Appetite****Control & exercise-deficit trial used only*[doi:10.1016/j.appet.2014.06.003](http://dx.doi.org/10.1016/j.appet.2014.06.003) | *n* = 11; age 23.4 ± 4.0 y; BMI 23.7 ± 2.7 kg/m2; V̇O2 peak 55.1 ± 9.5 mL/kg/min | Stationary cycling; 30 min; 64.4 ± 3.4% V̇O2 peak ; Net EE 1448 ± 255 kJ | CON: 128 ± 159 EX: 140 ± 163*P* = 0.091 |
| **Douglas et al (2015) *Appetite****Day one data used only*doi: 10.1016/j.appet.2015.05.006 | *n* = 13; age 22.5 ± 3.0 y; BMI 23.3 ± 2.3 kg/m2; V̇O2 peak 55.9 ± 9.0 mL/kg/min | Treadmill running; 60 min; 68.1 ± 5.2% V̇O2 peak ; Net EE 3100 ± 1029 kJ | CON: 114 ± 130EX: 121 ± 115*P* = 0.455 |
| **Alajmi et al (2016) *Med Sci Sports Exerc****Data for men used only*doi: 10.1249/MSS.0000000000000793 | *n* = 8; age 22.1 ± 3.4 y; BMI 23.6 ± 2.2 kg/m2; V̇O2 peak 64.0 ± 9.0 mL/kg/min | Treadmill running; 60 min; 71.6 ± 4.4% V̇O2 peak ; Net EE 4134 ± 490 kJ  | CON: 101 ± 56EX: 71 ± 30*P* = 0.06 |

Data = Mean ± SD; participants all healthy males