**Supplementary file 3**. Articles that were not included and main reasons for exclusion:

|  |  |  |  |
| --- | --- | --- | --- |
| **Nr** | **Authors** | **Article** | **Reason** |
| **1** | **Drummen 2020(1)** | High Compared with Moderate Protein Intake Reduces Adaptive Thermogenesis and Induces a Negative Energy Balance during Long-term Weight-Loss Maintenance in Participants with Prediabetes in the Postobese State: A PREVIEW Study | No weight loss / weight gain |
| **2** | **Shaw et al 2019(2)** | Effect of a Ketogenic Diet on Submaximal Exercise Capacity and Efficiency in Runners | Sample size <10 |
| **3** | **Camps 2019(3)** | Association of FTO and ADRB2 gene variation with energy restriction T induced adaptations in resting energy expenditure and physical activity | Other reason: Results already published in other paper (4) |
| **4** | **Langan-Evans 2019(5)** | Making weight safely: Assessment of within daily energy balance and manipulation of energy availability without symptoms of RED-S in an elite male Taekwondo athlete | article type |
| **5** | **Corley 2019(6)** | Changes in resting energy expenditure with intermittent fasting versus continuous daily restriction-a randomised controlled trial | article type |
| **6** | **Borges 2019(7)** | Adaptive thermogenesis and changes in body composition and physical fitness in army cadets | No weight loss / weight gain |
| **7** | **Beatty 2019(8)** | Examining changes in respiratory exchange ratio within an 8-week weight loss intervention | No weight loss / weight gain |
| **8** | **Thom, 2019(9)** | Adaptive thermogenesis, leptin and gut hormones during dietary induced weight loss: Impact on long-term weight loss maintenance | article type |
| **9** | **Ostendorf 2018(10)** | No consistent evidence of a disproportionately low resting energy expenditure in long-term successful weight-loss maintainers | Other reason: Participants had different periods for WL maintenance. |
| **10** | **Redman 2018(11)** | Metabolic Slowing and Reduced Oxidative Damage with Sustained Caloric Restriction Support the Rate of Living and Oxidative Damage Theories of Aging | Unclear/inadequate methodology for AT |
| **11** | **Nymo 2018(12)** | Compensatory responses to weight loss and long-term relapse: Is there a link? | article type |
| **12** | **Messias 2018(13)** | Individual adaptive thermogenesis and body composition changes after weight loss process | article type |
| **13** | **Hintze 2018(14)** | A one-year resistance training program following weight loss has no significant impact on body composition and energy expenditure in postmenopausal women living with overweight and obesity | Unclear/inadequate methodology for AT |
| **14** | **Heinitz 2018(15)** | Response of skeletal muscle UCP2-expression during metabolic adaptation to caloric restriction | Unclear/inadequate methodology for AT |
| **15** | **El Gohch 2018(16)** | Weight cycling in adults with severe obesity: A longitudinal study. | No weight loss / weight gain |
| **16** | **Clamp 2018(17)** | Successful and unsuccessful weight-loss maintainers: strategies to counteract metabolic compensation following weight loss | Unclear/inadequate methodology for AT |
| **17** | **Byrne 2018(18)** | Changes in total and activity energy expenditure accompanying continuous versus intermittent energy restriction: the matador study. | article type |
| **18** | **Trexler 2018(19)** | Physiological Changes Following Competition in Male and Female Physique Athletes: A Pilot Study | Unclear/inadequate methodology for AT |
| **19** | **Pardue 2017(20)** | Case Study: Unfavorable But Transient Physiological Changes During Contest Preparation in a Drug-Free Male Bodybuilder | n<10 |
| **20** | **Nymo 2017(21)** | Sustainability of changes in energy expenditure variables at 1 year follow-up after initial weight loss with a very-low energy diet | article type |
| **21** | **Koehler 2017(22)** | Less-than-expected weight loss in normal-weight women undergoing caloric restriction and exercise is accompanied by preservation of fat-free mass and metabolic adaptations | Unclear/inadequate methodology for AT |
| **22** | **Furber 2017(23)** | A 7-day high protein hypocaloric diet promotes cellular metabolic adaptations and attenuates lean mass loss in healthy males. | Unclear/inadequate methodology for AT |
| **23** | **Carnero 2017(24)** | Randomized Trial Reveals that Physical Activity and Energy Expenditure are Associated with Weight and Body Composition after RYGB | Unclear/inadequate methodology for AT |
| **24** | **Tam 2016(25)** | Energy metabolic adaptation and cardiometabolic improvements one year after gastric bypass, sleeve gastrectomy and gastric band | Sample size <10; |
| **25** | **Pontzer 2016(26)** | Constrained Total Energy Expenditure and Metabolic Adaptation to Physical Activity in Adult Humans. | No weight loss / weight gain |
| **26** | **Hall 2016(27)** | Energy expenditure and body composition changes after an isocaloric ketogenic diet in overweight and obese men. | Unclear/inadequate methodology for AT |
| **27** | **Triffoni-Melo 2016(28)** | Resting energy expenditure adaptation after short-term caloric restriction in morbidly obese women | Unclear/inadequate methodology for AT |
| **28** | **Siervo 2015(29)** | Imposed rate and extent of weight loss in obese men and adaptive changes in resting and total energy expenditure | Sample size <10 |
| **29** | **Jørgensen 2015(30)** | Timeline over which compensatory mechanisms are activated during weight loss with a very-low-calorie diet. | Article Type |
| **30** | **Jaime 2015(31)** | Effect of calorie restriction on energy expenditure in overweight and obese adult women | Unclear/inadequate methodology for AT |
| **31** | **Hume 2015(32)** | Compensations for Weight Loss in Successful and Unsuccessful Dieters. | Unclear/inadequate methodology for AT |
| **32** | **Herrmann 2015(33)** | Energy intake, nonexercise physical activity, and weight loss in responders and nonresponders: The Midwest Exercise Trial 2. | Unclear/inadequate methodology for AT |
| **33** | **Hasani 2015(34)** | Effect of Laparoscopic Gastric Plication Surgery on Body Composition, Resting Energy Expenditure, Thyroid Hormones, and Physical Activity in Morbidly Obese Patients. | Unclear/inadequate methodology for AT |
| **34** | **Bakker 2015(35)** | Middle-aged overweight South Asian men exhibit a different metabolic adaptation to short-term energy restriction compared with Europeans. | Unclear/inadequate methodology for AT |
| **35** | **Knuth 2014(36)** | Metabolic Adaptation Following Massive Weight Loss is Related to the Degree of Energy Imbalance and Changes in Circulating Leptin | Other reason: Results already published in other paper (37) |
| **36** | **Coutinho 2014(38)** | The impact of speed of weight loss on body composition and compensatory mechanisms activated during weight reduction. | Article type |
| **37** | **Werling 2013(39)** | Increased Postprandial Energy Expenditure May Explain Superior Long Term Weight Loss after Roux-en-Y Gastric Bypass Compared to Vertical Banded Gastroplasty. | Unclear/inadequate methodology for AT |
| **38** | **Tremblay 2013(40)** | Adaptive thermogenesis can make a difference in the ability of obese individuals to lose body weight. | Article type |
| **39** | **Byrne 2012(41)** | Does metabolic compensation explain the majority of less-than-expected weight loss in obese adults during a short-term severe diet and exercise intervention? | Unclear/inadequate methodology for AT |
| **40** | **Kissileff 2012 (42)** | Leptin reverses declines in satiation in weight-reduced obese humans | Sample size <10 |
| **41** | **Sumithran 2011 (43)** | Long-term persistence of hormonal adaptations to weight loss | Unclear/inadequate methodology for AT |
| **42** | **Lee TA 2010(44)** | Effects of dihydrocapsiate on adaptive and diet-induced thermogenesis with a high protein very low calorie diet: a randomized control trial | Unclear/inadequate methodology for AT |
| **43** | **Johannsen 2010(45)** | A competitive weight loss program that includes intense daily physical activity results in extreme weight loss despite a large metabolic adaptation. | Article type |
| **44** | **Galgani 2010(46)** | Leptin Replacement Prevents Weight Loss-Induced Metabolic Adaptation in Congenital Leptin-Deficient Patients | Sample size <10 |
| **45** | **Tremblay 2009 (47)** | Adaptive reduction in thermogenesis and resistance to lose fat in obese men. | Sample size <10; |
| **46** | **Fullmer 2009(48)** | The effect of calorie deficits of 25%, 40% and 55% on adaptation to resting energy expenditure and lean mass in healthy post-menopausal women. | Article type |
| **47** | **Rosenbaum 2008(49)** | Long-term persistence of adaptive thermogenesis in subjects who have maintained a reduced body weight | Unclear/inadequate methodology for AT |
| **48** | **Martin 2007(50)** | Effect of Calorie Restriction on Resting Metabolic Rate and Spontaneous Physical Activity | Other reason: Results already published in other article (51) |
| **49** | **Abete 2008(52)** | Energy-restricted diets based on a distinct food selection affecting the glycemic index induce different weight loss and oxidative response | Unclear/inadequate methodology for AT |
| **50** | **Hall 2006(53)** | Computational model of in vivo human energy metabolism during semistarvation and refeeding. | Article type |
| **51** | **Heilbronn 2006(54)** | Effect of 6-month calorie restriction on biomarkers of longevity, metabolic adaptation, and oxidative stress in overweight individuals: a randomized controlled trial | Other reason – already published results |
| **52** | **Tremblay 2004(55)** | Thermogenesis and weight loss in obese individuals: a primary association with organochlorine pollution | Article type |
| **53** | **Doucet 2003(56)** | Greater than predicted decrease in energy expenditure during exercise after body weight loss in obese men | Unclear/inadequate methodology for AT |
| **54** | **Hainer 2001(57)** | A twin study of weight loss and metabolic efficiency. | Unclear/inadequate methodology for AT |
| **55** | **Weyer 2000(58)** | Energy Expenditure, Fat Oxidation, and Body Weight Regulation: A Study of Metabolic Adaptation to Long- Term Weight Change | No weight loss / weight gain |
| **56** | **Menozzi 2000(59)** | Resting metabolic rate, fat-free mass and catecholamine excretion during weight loss in female obese patients | Unclear/inadequate methodology for AT |
| **57** | **Weyer 2000 (60)** | Energy metabolism after 2 y of energy restriction: the Biosphere 2 experiment. | Sample size N<10 |
| **58** | **Agus 2000(61)** | Dietary composition and physiologic adaptations to energy restriction. | Unclear/inadequate methodology for AT |
| **59** | **Weinsier 2000 (62)** | Energy expenditure and free-living physical activity in black and white women: comparison and after weight loss | Unclear/inadequate methodology for AT |
| **60** | **Wadden 1996 (63)** | Effects of weight cycling on the resting energy expenditure and body composition of obese women. | Unclear/inadequate methodology for AT |
| **61** | **Leibel 1995(64)** | Changes in energy expenditure resulting from altered body weight | Sample size <10 |
| **62** | [**Schultink 1993**](file:///g/Schultink,%20J.%20Werner)**(65)** | Seasonal weight-loss and metabolic adaptation in rural beninese women - the relationship with body-mass index. | No measurements of body composition stores Body composition - Skinfolds |
| **63** | **Luke 1992 (66)** | Basal metabolic rate, fat-free mass, and body cell mass during energy restriction. | Unclear/inadequate methodology for AT |
| **64** | **Manore 1991 (67)** | Energy expenditure at rest and during exercise in nonobese female cyclical dieters and in nondieting control subjects. | Unclear/inadequate methodology for AT |
| **65** | **Andersson 1991(68)** | The effects of exercise training on body composition and metabolism in men and women. | Unclear/inadequate methodology for AT |
| **66** | **Melby 1991(69)** | Diet- induced weight loss and metabolic changes in obese women with high versus low prior weight loss/regain. | No measurements of body composition stores |
| **67** | **Lemons 1989(70)** | Selection of appropriate exercise regimes for weight reduction during VLCD and maintenance. | Unclear/inadequate methodology for AT |
| **68** | **Garby 1988(71)** | Effect of 12 weeks' light-moderate underfeeding on 24-hour energy expenditure in normal male and female subjects | No measurements of body composition stores |
| **69** | **Bessard 1983 (72)** | Energy expenditure and postprandial thermogenesis in obese women before and after weight loss. | Intervention < 1 week |

**REFERENCES**

1. Drummen M, Tischmann L, Gatta-Cherifi B, Fogelholm M, Raben A, Adam TC, et al. High Compared with Moderate Protein Intake Reduces Adaptive Thermogenesis and Induces a Negative Energy Balance during Long-term Weight-Loss Maintenance in Participants with Prediabetes in the Postobese State: A PREVIEW Study. The Journal of Nutrition. 2019;150(3):458-63.

2. Shaw DM, Merien F, Braakhuis A, Maunder ED, Dulson DK. Effect of a Ketogenic Diet on Submaximal Exercise Capacity and Efficiency in Runners. Medicine and science in sports and exercise. 2019;51(10):2135-46.

3. Camps SGJA, Verhoef SPM, Bouwman FG, Mariman ECM, Westerterp KR. Association of FTO and ADRB2 gene variation with energy restriction induced adaptations in resting energy expenditure and physical activity. Gene: X. 2019;3:100019.

4. Camps SG, Verhoef SP, Westerterp KR. Leptin and energy restriction induced adaptation in energy expenditure. Metabolism. 2015;64(10):1284-90.

5. Langan-Evans C, Germaine M, Artukovic M, Shepherd SO, Close GL, Morton JP. Making weight safely: Assessment of within daily energy balance and manipulation of energy availability without symptoms of RED-S in an elite male Taekwondo athlete. International Journal of Sport Nutrition and Exercise Metabolism. 2019;29(Supplement 1):S14.

6. Corley B, Khouri C, Theaude L, Hawke P, Hall R, Weatherall M, et al. Changes in resting energy expenditure with intermittent fasting versus continuous daily restriction-a randomised controlled trial. Internal medicine journal. 2019;49:5‐.

7. Borges JH, Hunter GR, Silva AM, Cirolini VX, Langer RD, Pascoa MA, et al. Adaptive thermogenesis and changes in body composition and physical fitness in army cadets. J Sports Med Phys Fitness. 2019;59(1):94-101.

8. Beatty J, Melanson K. Examining changes in respiratory exchange ratio within an 8-week weight loss intervention. J Hum Nutr Diet. 2019;32(6):737-44.

9. Thom G, Brosnahan N, Al-Gindan Y, Dombrowski SU, Lean ME, Malkova D. Adaptive thermogenesis, leptin and gut hormones during dietary induced weight loss: Impact on long-term weight loss maintenance. Obesity Facts. 2018;11(Supplement 1):34-5.

10. Ostendorf DM, Melanson EL, Caldwell AE, Creasy SA, Pan Z, Maclean PS, et al. No consistent evidence of a disproportionately low resting energy expenditure in long-term successful weight-loss maintainers. American Journal of Clinical Nutrition. 2018;108(4):658-66.

11. Redman LM, Smith SR, Burton JH, Martin CK, Il'yasova D, Ravussin E. Metabolic Slowing and Reduced Oxidative Damage with Sustained Caloric Restriction Support the Rate of Living and Oxidative Damage Theories of Aging. Cell Metab. 2018;27(4):805-15.e4.

12. Nymo S, Coutinho SR, Rehfeld J, Truby H, Kulseng B, Martins C. Compensatory responses to weight loss and long-term relapse: Is there a link? Obesity Facts. 2018;11(Supplement 1):31.

13. Messias CB, Poli VFS, Gomes RJ, Teixeira CLS, Moraes A, Rossi S, et al. Individual adaptive thermogenesis and body composition changes after weight loss process. Obesity Facts. 2018;11(Supplement 1):301-2.

14. Hintze LJ, Messier V, Lavoie ME, Brochu M, Lavoie JM, Prud'homme D, et al. A one-year resistance training program following weight loss has no significant impact on body composition and energy expenditure in postmenopausal women living with overweight and obesity. Physiology & Behavior. 2018;189:99-106.

15. Heinitz S, Piaggi P, Yang S, Bonfiglio S, Steel J, Krakoff J, et al. Response of skeletal muscle UCP2-expression during metabolic adaptation to caloric restriction. Int J Obes (Lond). 2018;42(5):974-84.

16. El Ghoch M, Calugi S, Dalle Grave R. Weight cycling in adults with severe obesity: A longitudinal study. Nutr Diet. 2018;75(3):256-62.

17. Clamp LD, Hume DJ, Lambert EV, Kroff J. Successful and unsuccessful weight-loss maintainers: strategies to counteract metabolic compensation following weight loss. Journal of Nutritional Science. 2018.

18. 25th European Congress on Obesity, Vienna, Austria, May 23-26, 2018: Abstracts. Obesity Facts. 2018;11(suppl 1)(Suppl. 1):1-364.

19. Trexler ET, Hirsch KR, Campbell BI, Smith-Ryan AE. Physiological Changes Following Competition in Male and Female Physique Athletes: A Pilot Study. Int J Sport Nutr Exerc Metab. 2017;27(5):458-66.

20. Pardue A, Trexler ET, Sprod LK. Case Study: Unfavorable But Transient Physiological Changes During Contest Preparation in a Drug-Free Male Bodybuilder. Int J Sport Nutr Exerc Metab. 2017;27(6):550-9.

21. Nymo S, Coutinho S, Eknes P, Bomo O, Truby H, Kulseeng B, et al. Sustainability of changes in energy expenditure variables at 1 year follow-up after initial weight loss with a very-low energy diet. Obesity Facts. 2017;10(Supplement 1):96.

22. Koehler K, De Souza MJ, Williams NI. Less-than-expected weight loss in normal-weight women undergoing caloric restriction and exercise is accompanied by preservation of fat-free mass and metabolic adaptations. European journal of clinical nutrition. 2017;71(3):365‐71.

23. Furber M, Anton-Solanas A, Koppe E, Ashby C, Roberts M, Roberts J. A 7-day high protein hypocaloric diet promotes cellular metabolic adaptations and attenuates lean mass loss in healthy males. Clinical Nutrition Experimental. 2017;14:13-25.

24. Carnero EA, Dubis GS, Hames KC, Jakicic JM, Houmard JA, Coen PM, et al. Randomized trial reveals that physical activity and energy expenditure are associated with weight and body composition after RYGB. Obesity. 2017;25(7):1206-16.

25. Tam CS, Redman LM, Greenway F, LeBlanc KA, Haussmann MG, Ravussin E. Energy Metabolic Adaptation and Cardiometabolic Improvements One Year After Gastric Bypass, Sleeve Gastrectomy, and Gastric Band. J Clin Endocrinol Metab. 2016;101(10):3755-64.

26. Pontzer H, Durazo-Arvizu R, Dugas LR, Plange-Rhule J, Bovet P, Forrester TE, et al. Constrained Total Energy Expenditure and Metabolic Adaptation to Physical Activity in Adult Humans. Curr Biol. 2016;26(3):410-7.

27. Hall KD, Chen KY, Guo J, Lam YY, Leibel RL, Mayer LES, et al. Energy expenditure and body composition changes after an isocaloric ketogenic diet in overweight and obese men. American Journal of Clinical Nutrition. 2016;104(2):324-33.

28. Triffoni-Melo AT, Suen VMM, Resende CMM, Braga CBM, Diez-Garcia RW. Resting energy expenditure adaptation after short-term caloric restriction in morbidly obese women. Revista De Nutricao-Brazilian Journal of Nutrition. 2015;28(5):505-11.

29. Siervo M, Faber P, Lara J, Gibney ER, Milne E, Ritz P, et al. Imposed rate and extent of weight loss in obese men and adaptive changes in resting and total energy expenditure. Metabolism. 2015;64(8):896-904.

30. Nymo S, Jrrgensen J, Kulseng B, Truby H, Martins C. Timeline over which compensatory mechanisms are activated during weight loss with a very-low calorie diet. Obesity Facts. 2015;8(SUPPL. 1):26.

31. Jaime TJ, Balich LL, Acevedo GB, de la Maza Cave MP, Birn SH, Parada SH, et al. Effect of calorie restriction on energy expenditure in overweight and obese adult women. Nutricion Hospitalaria. 2015;31(6):2428-36.

32. Hume DJ, Kroff J, Clamp LD, Lambert EV. Compensations for Weight Loss in Successful and Unsuccessful Dieters. Am J Health Behav. 2015;39(5):589-600.

33. Herrmann SD, Willis EA, Honas JJ, Lee J, Washburn RA, Donnelly JE. Energy intake, nonexercise physical activity, and weight loss in responders and nonresponders: The Midwest Exercise Trial 2. Obesity. 2015;23(8):1539-49.

34. Hasani M, Mirahmadian M, Taheri E, Qorbani M, Talebpour M, Hosseni S. The Effect of Laparoscopic Gastric Plication Surgery on Body Composition, Resting Energy Expenditure, Thyroid Hormones, and Physical Activity in Morbidly Obese Patients. Bariatric Surgical Practice and Patient Care. 2015;10(4):173-9.

35. Bakker LE, Guigas B, van Schinkel LD, van der Zon GC, Streefland TC, van Klinken JB, et al. Middle-aged overweight South Asian men exhibit a different metabolic adaptation to short-term energy restriction compared with Europeans. Diabetologia. 2015;58(1):165-77.

36. Knuth ND, Johannsen DL, Tamboli RA, Marks-Shulman PA, Huizenga R, Chen KY, et al. Metabolic adaptation following massive weight loss is related to the degree of energy imbalance and changes in circulating leptin. Obesity (Silver Spring). 2014;22(12):2563-9.

37. Johannsen DL, Knuth ND, Huizenga R, Rood JC, Ravussin E, Hall KD. Metabolic slowing with massive weight loss despite preservation of fat-free mass. J Clin Endocrinol Metab. 2012;97(7):2489-96.

38. Coutinho, With, Kulseng, Truby, Martins. The impact of speed of weight loss on body composition and compensatory mechanisms activated during weight reduction. Obesity facts. 2014;7:77.

39. Werling M, Olbers T, Fandriks L, Bueter M, Lonroth H, Stenlof K, et al. Increased Postprandial Energy Expenditure May Explain Superior Long Term Weight Loss after Roux-en-Y Gastric Bypass Compared to Vertical Banded Gastroplasty. PloS one. 2013;8(4).

40. Tremblay A, Royer MM, Chaput JP, Doucet E. Adaptive thermogenesis can make a difference in the ability of obese individuals to lose body weight. Int J Obes (Lond). 2013;37(6):759-64.

41. Byrne NM, Wood RE, Schutz Y, Hills AP. Does metabolic compensation explain the majority of less-than-expected weight loss in obese adults during a short-term severe diet and exercise intervention? Int J Obes (Lond). 2012;36(11):1472-8.

42. Kissileff HR, Thornton JC, Torres MI, Pavlovich K, Mayer LS, Kalari V, et al. Leptin reverses declines in satiation in weight-reduced obese humans. The American journal of clinical nutrition. 2012;95(2):309-17.

43. Sumithran P, Prendergast LA, Delbridge E, Purcell K, Shulkes A, Kriketos A, et al. Long-term persistence of hormonal adaptations to weight loss. N Engl J Med. 2011;365(17):1597-604.

44. Lee TA, Li Z, Zerlin A, Heber D. Effects of dihydrocapsiate on adaptive and diet-induced thermogenesis with a high protein very low calorie diet: A randomized control trial. Nutrition and Metabolism. 2010;7:78.

45. Johannsen DL, Knuth ND, Huizenga R, Hall KD, Ravussin E. A competitive weight loss program that includes intense daily physical activity results in extreme weight loss despite a large metabolic adaptation. Obesity. 2010;18(SUPPL. 2):S63.

46. Galgani JE, Greenway FL, Caglayan S, Wong ML, Licinio J, Ravussin E. Leptin replacement prevents weight loss-induced metabolic adaptation in congenital leptin-deficient patients. J Clin Endocrinol Metab. 2010;95(2):851-5.

47. Tremblay A, Chaput J-P. Adaptive reduction in thermogenesis and resistance to lose fat in obese men. The British journal of nutrition. 2009;102(4):488-92.

48. Fullmer S, Reed BL, Eggett DL, Davidson RT, Nyland NK. The effect of calorie deficits of 25%, 40% and 55% on adaptation to resting energy expenditure and lean mass in healthy post-menopausal women. Obesity and Metabolism-Milan. 2009;5(3-4):121-8.

49. Rosenbaum M, Hirsch J, Gallagher DA, Leibel RL. Long-term persistence of adaptive thermogenesis in subjects who have maintained a reduced body weight. The American journal of clinical nutrition. 2008;88(4):906-12.

50. Martin CK, Heilbronn LK, de Jonge L, DeLany JP, Volaufova J, Anton SD, et al. Effect of calorie restriction on resting metabolic rate and spontaneous physical activity. Obesity (Silver Spring, Md). 2007;15(12):2964‐73.

51. Lecoultre V, Ravussin E, Redman LM. The fall in leptin concentration is a major determinant of the metabolic adaptation induced by caloric restriction independently of the changes in leptin circadian rhythms. J Clin Endocrinol Metab. 2011;96(9):E1512-6.

52. Abete I, Parra D, Martinez JA. Energy-restricted diets based on a distinct food selection affecting the glycemic index induce different weight loss and oxidative response. Clinical Nutrition. 2008;27(4):545-51.

53. Hall KD. Computational model of in vivo human energy metabolism during semistarvation and refeeding. Am J Physiol Endocrinol Metab. 2006;291(1):E23-37.

54. Heilbronn LK, de Jonge L, Frisard MI, DeLany JP, Larson-Meyer DE, Rood J, et al. Effect of 6-month calorie restriction on biomarkers of longevity, metabolic adaptation, and oxidative stress in overweight individuals: a randomized controlled trial. JAMA. 2006;295(13):1539‐48.

55. Tremblay A, Pelletier C, Doucet E, Imbeault P. Thermogenesis and weight loss in obese individuals: A primary association with organochlorine pollution. International Journal of Obesity. 2004;28(7):936-9.

56. Doucet E, Imbeault P, St-Pierre S, Alméras N, Mauriège P, Després JP, et al. Greater than predicted decrease in energy expenditure during exercise after body weight loss in obese men. Clin Sci (Lond). 2003;105(1):89-95.

57. Hainer V, Stunkard A, Kunešová M, Parízková J, Štich V, Allison DB. A twin study of weight loss and metabolic efficiency. International Journal of Obesity. 2001;25(4):533-7.

58. Weyer C, Pratley RE, Salbe AD, Bogardus C, Ravussin E, Tataranni PA. Energy expenditure, fat oxidation, and body weight regulation: a study of metabolic adaptation to long-term weight change. J Clin Endocrinol Metab. 2000;85(3):1087-94.

59. Menozzi R, Bondi M, Baldini A, Venneri MG, Velardo A, Del Rio G. Resting metabolic rate, fat-free mass and catecholamine excretion during weight loss in female obese patients. Br J Nutr. 2000;84(4):515-20.

60. Weyer C, Walford RL, Harper IT, Milner M, MacCallum T, Tataranni PA, et al. Energy metabolism after 2 y of energy restriction: the biosphere 2 experiment. The American journal of clinical nutrition. 2000;72(4):946-53.

61. Agus MSD, Swain JF, Larson CL, Eckert EA, Ludwig DS. Dietary composition and physiologic adaptations to energy restriction. American Journal of Clinical Nutrition. 2000;71(4):901-7.

62. Weinsier RL, Hunter GR, Zuckerman PA, Redden DT, Darnell BE, Larson DE, et al. Energy expenditure and free-living physical activity in black and white women: comparison before and after weight loss. The American journal of clinical nutrition. 2000;71(5):1138-46.

63. Wadden TA, Foster GD, Stunkard AJ, Conill AM. Effects of weight cycling on the resting energy expenditure and body composition of obese women. Int J Eat Disord. 1996;19(1):5-12.

64. Leibel RL, Rosenbaum M, Hirsch J. Changes in energy expenditure resulting from altered body weight. N Engl J Med. 1995;332(10):621-8.

65. Schultink JW, Van Raaij JM, Hautvast JG. Seasonal weight loss and metabolic adaptation in rural Beninese women: the relationship with body mass index. Br J Nutr. 1993;70(3):689-700.

66. Luke A, Schoeller DA. Basal metabolic rate, fat-free mass, and body cell mass during energy restriction. Metabolism. 1992;41(4):450-6.

67. Manore MM, Berry TE, Skinner JS, Carroll SS. Energy expenditure at rest and during exercise in nonobese female cyclical dieters and in nondieting control subjects. The American journal of clinical nutrition. 1991;54(1):41-6.

68. Andersson B, Xu X, Rebuffe-Scrive M, Terning K, Krotkiewski M, Bjorntorp P. The effects of exercise training on body composition and metabolism in men and women. International Journal of Obesity. 1991;15(1):75-81.

69. Melby CL, Sylliaasen S, Rhodes T. Diet-induced weight loss and metabolic changes in obese women with high versus low prior weight loss/regain. Nutrition Research. 1991;11(9):971-8.

70. Lemons AD, Kreitzman SN, Coxon A, Howard A. Selection of appropriate exercise regimens for weight reduction during VLCD and maintenance. Int J Obes. 1989;13 Suppl 2:119-23.

71. Garby L, Kurzer MS, Lammert O, Nielsen E. Effect of 12 weeks' light-moderate underfeeding on 24-hour energy expenditure in normal male and female subjects. Eur J Clin Nutr. 1988;42(4):295-300.

72. Bessard T, Schutz Y, Jéquier E. Energy expenditure and postprandial thermogenesis in obese women before and after weight loss. The American journal of clinical nutrition. 1983;38(5):680-93.