# Table: Descriptive characteristics of arms and participants for included studies

| **Authors** | **Year** | **Article title** | **Condition** | **Sample size** | **Age** | **Body mass** | **Height** | **BMI** | **Fat mass** | **Fat free mass** | **Race/Ethnicity** | **Physical activity** | **Country of study** | **Metabolic health** | **m\_body\_mass\_estim** | **m\_height\_estim** | **m\_bmi\_estim** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Segal and Dunaif | 1990 | Resting metabolic rate and postprandial thermogenesis in polycystic ovarian syndrome. | Control | 11 | 28 (3.32) | 62.5 (4.97) | NA (NA) | NA (NA) | NA (NA) | 48.8 (4.64) |  |  | USA | OGTT (75g oral glucose load), Fasting glucose (mM) = 4.5 (SE = 0.2), Fasting insulin (pM) = 72 (SE = 7), Glucose area (mM 2 hours) = 9.9 (SE = 0.2), Insulin area (pM 2 hours) = 653 (SE = 7) | n | n | n |
| 1990 | Resting metabolic rate and postprandial thermogenesis in polycystic ovarian syndrome. | Control | 9 | 29 (6) | 86.9 (17.4) | NA (NA) | NA (NA) | NA (NA) | 50.4 (4.2) |  |  | USA | OGTT (75g oral glucose load), Fasting glucose (mM) = 4.8 (SE = 0.1), Fasting insulin (pM) = 122 (SE = 14), Glucose area (mM 2 hours) = 9.9 (SE = 0.2), Insulin area (pM 2 hours) = 1300 (SE = 294) | n | n | n |
| 1990 | Resting metabolic rate and postprandial thermogenesis in polycystic ovarian syndrome. | PCOS | 10 | 25 (6.32) | 84.1 (8.54) | NA (NA) | NA (NA) | NA (NA) | 48.7 (4.11) |  |  | USA | OGTT (75g oral glucose load), Fasting glucose (mM) = 4.9 (SE = 0.1), Fasting insulin (pM) = 223 (SE = 43), Glucose area (mM 2 hours) = 12.4 (SE = 0.9), Insulin area (pM 2 hours) = 2872 (SE =381) | n | n | n |
| Robinson et al., | 1992 | Postprandial thermogenesis is reduced in polycystic ovary syndrome and is associated with increased insulin resistance. | PCOS | 14 | 27 (5.5) | 70.25 (7.69) | 161.15 (NA) | 27.05 (3.36) | NA (NA) | 50.15 (3) | Matched but not reported |  | UK | Short insulin tolerance test (0.5 U/kg body weight), Glucose slope (median, 3-15 mins) = 148.5 (SD = 20.5), Peak insulin (mU/L, 4 mins) = 265 (SD = 18) | n | y | n |
| 1992 | Postprandial thermogenesis is reduced in polycystic ovary syndrome and is associated with increased insulin resistance. | Control | 14 | 29 (4.25) | 71.25 (7.84) | 159.95 (NA) | 27.85 (2.5) | NA (NA) | 50.6 (4.34) | Matched but not reported |  | UK | Short insulin tolerance test (0.5 U/kg body weight), Glucose slope (median, 3-15 mins) = 183.5 (SD = 26), Peak insulin (mU/L, 4 mins) = 273 (SD = 9) | n | y | n |
| Bruner et al., | 2006 | Effects of exercise and nutritional counseling in women with polycystic ovary syndrome | PCOS | 7 | 32.3 (2.65) | 100.5 (17.73) | 166.62 (NA) | 36.2 (5.29) | NA (NA) | NA (NA) |  | Sedentary at baseline (not specified how defined) | Canada | Fasting insulin (pmol/L) = 116.7 (SE = 42.2) | n | y | n |
| 2006 | Effects of exercise and nutritional counseling in women with polycystic ovary syndrome | PCOS | 5 | 28.4 (6.04) | 94.8 (13.86) | 159.85 (NA) | 37.1 (7.6) | NA (NA) | NA (NA) |  | Sedentary at baseline (not specified how defined) | Canada | Fasting insulin (pmol/L) = 233.8 (SE = 77.4) | n | y | n |
| Moran et al., | 2006 | Short-term meal replacements followed by dietary macronutrient restriction enhance weight loss in polycystic ovary syndrome | PCOS | 34 | 32.1 (5.2) | 96 (19.24) | NA (NA) | NA (NA) | 34.9 (8.75) | 61.5 (12.24) | White/Caucasian | 24-h physical activity record for all 7 d/wk in weeks 0, 8, 20, and 32 (but not actually reported) | Australia | Fasting glucose (mmol/L) = 5.2 (SE = 0.1), Fasting insulin (mU/L, baseline only) = 12.86 (SD = 6.95), HOMA (baseline only) = 2.5 (SD = 1.77) | n | n | n |
| Cosar et al., | 2008 | Resting metabolic rate and exercise capacity in women with polycystic ovary syndrome. | PCOS | 31 | 25.9 (5.3) | NA (NA) | NA (NA) | 26.97 (5.12) | NA (NA) | NA (NA) |  |  | Turkey | Fasting glucose/insulin (ratio) = 6.01 (SD = 3.72), Fasting glucose (mg/dL) = 95.64 (SD = 11.03), Fasting insulin (mIU/mL) = 16.13 (SD = 9.86) | n | n | n |
| 2008 | Resting metabolic rate and exercise capacity in women with polycystic ovary syndrome. | Control | 29 | 27.1 (4.8) | NA (NA) | NA (NA) | 26.03 (5.66) | NA (NA) | NA (NA) |  |  | Turkey | Fasting glucose/insulin (ratio) = 13.56 (SD = 6.13), Fasting glucose (mg/dL) = 92.49 (SD = 10.66), Fasting insulin (mIU/mL) = 7.25 (SD = 3.01) | n | n | n |
| Graff et al., | 2013 | Dietary glycemic index is associated with less favorable anthropometric and metabolic profiles in polycystic ovary syndrome women with different phenotypes | PCOS | 61 | 22.7 (6.2) | NA (NA) | NA (NA) | 28.9 (5.6) | NA (NA) | NA (NA) | White/Caucasian - 87.6% | Physical activity (steps/day, median) = 5519 (IQR = 3658-7002) | Brazil | OGTT (75g oral glucose load), Fasting glucose (md/dL) = 86.8 (SD = 91), Fasting insulin (uU/mL, median) = 16.7 (IQR = 9.8-21.2), HOMA-IR (median) = 3.5 (IQR = 2.1-4.7) | n | n | n |
| 2013 | Dietary glycemic index is associated with less favorable anthropometric and metabolic profiles in polycystic ovary syndrome women with different phenotypes | Control | 44 | 25 (5.6) | NA (NA) | NA (NA) | 27.1 (5.7) | NA (NA) | NA (NA) | White/Caucasian - 87.6% | Physical activity (steps/day, median) = 5811 (IQR = 4339-7267) | Brazil | OGTT (75g oral glucose load), Fasting glucose (md/dL) = 87 (SD = 7.5), Fasting insulin (uU/mL, median) = 9.9 (IQR = 6.8-12.5), HOMA-IR (median) = 2.1 (IQR = 1.4-2.8) | n | n | n |
| Pohlmeier er al., | 2014 | Effect of a low-starch/low-dairy diet on fat oxidation in overweight and obese women with polycystic ovary syndrome. | PCOS | 10 | 29.6 (4.6) | 105.4 (14.5) | 165.46 (NA) | 38.5 (4.2) | 52.4 (14.8) | 52.3 (10.7) | White/Caucasian = 6, Hispanic = 3, Native American = 1 | Physical activity level (ratio of TDEE/RMR) = 1.65 | USA | OGTT (75g oral glucose load), Fasting glucose (md/dL) = 91.6 (SD = 9.4), Fasting insulin (ug/mL) = 35.3 (SD = 7), Glucose at 2 hours (mg/dL) = 131.7 (SD = 45.2), Insulin at 2 hours (ug/mL) = 271.6 (SD =285), HbA1c (%) = 5.5 (SD = 0.4) | n | y | n |
| Doh et al., | 2016 | The Relationship between Adiposity and Insulin Sensitivity in African Women Living with the Polycystic Ovarian Syndrome: A Clamp Study. | PCOS | 6 | 26 (5.2) | NA (NA) | NA (NA) | 34.1 (3.6) | 41.2 (12.5) | 56.3 (5) | African | Engaged in sporting activities < 2 days/week - 50% | Cameroon | Hyperinsulinemic euglycemic clamp technique, M-value (mg/kg/min, median) = 6.6 (IQR = 5.5-7.3) | n | n | n |
| 2016 | The Relationship between Adiposity and Insulin Sensitivity in African Women Living with the Polycystic Ovarian Syndrome: A Clamp Study. | PCOS | 8 | 27 (3.7) | NA (NA) | NA (NA) | 26.4 (3) | 23.3 (6.9) | 47.4 (5.6) | African | Engaged in sporting activities < 2 days/week - 87.5% | Cameroon | Hyperinsulinemic euglycemic clamp technique, M-value -(mg/kg/min, median) = 9.1 (IQR 7.7-10) | n | n | n |
| 2016 | The Relationship between Adiposity and Insulin Sensitivity in African Women Living with the Polycystic Ovarian Syndrome: A Clamp Study. | Control | 10 | 23 (0.7) | NA (NA) | NA (NA) | 22.5 (3.6) | 17.1 (7.6) | 45.9 (6.7) | African | Engaged in sporting activities < 2 days/week - 80% | Cameroon | Hyperinsulinemic euglycemic clamp technique, M-value (mg/kg/min, median) = 11.9 (IQR = 9.4-14.5) | n | n | n |
| Larsson et al., | 2016 | Dietary intake, resting energy expenditure, and eating behavior in women with and without polycystic ovary syndrome. | PCOS | 72 | 30.2 (4.4) | 79.6 (20.3) | 167.12 (NA) | 28.5 (7.2) | NA (NA) | NA (NA) |  |  | Sweden |  | n | y | n |
| 2016 | Dietary intake, resting energy expenditure, and eating behavior in women with and without polycystic ovary syndrome. | Control | 30 | 27.8 (3.6) | 70.9 (17.1) | 169.77 (NA) | 24.6 (5) | NA (NA) | NA (NA) |  |  | Sweden |  | n | y | n |
| Graff et al., | 2017 | Saturated Fat Intake Is Related to Heart Rate Variability in Women with Polycystic Ovary Syndrome. | PCOS | 84 | 23.5 (6.3) | NA (NA) | NA (NA) | 29.4 (6.4) | NA (NA) | NA (NA) | White/Caucasian - 92.9% | Physical activity (steps/day, median) = 5821 (IQR = 3821-7664) | Brazil | OGTT (75g oral glucose load), Fasting glucose (md/dL) = 87.4 (SD = 8.4), Glucose at 2 hours (mg/dL) = 103.6 (SD = 31.5), HOMA-IR (median) = 3.4 (IQR = 1.8-4.7) | n | n | n |
| 2017 | Saturated Fat Intake Is Related to Heart Rate Variability in Women with Polycystic Ovary Syndrome. | Control | 54 | 26.2 (6.5) | NA (NA) | NA (NA) | 27.2 (5.8) | NA (NA) | NA (NA) | White/Caucasian - 88.9% | Physical activity (steps/day, median) = 6002 (IQR = 4375-7427) | Brazil | OGTT (75g oral glucose load), Fasting glucose (md/dL) = 86.8 (SD = 7.9), Glucose at 2 hours (mg/dL) = 97 (SD = 20.9), HOMA-IR (median) = 2.1 (IQR = 1.5-2.8) | n | n | n |
| Rodriques et al., | 2017 | Low validity of predictive equations for calculating resting energy expenditure in overweight and obese women with polycystic ovary syndrome. | PCOS | 30 | 30.8 (5.4) | 85.3 (13.1) | 161.76 (NA) | 32.6 (3.7) | NA (NA) | NA (NA) |  | "Physical activity level was assessed using criteria established by the Institute of Medicine" 66.7% classified sedentary, 33.3% classified as low activity level | Brazil |  | n | y | n |
| Broskey et al., | 2017 | Assessing Energy Requirements in Women With Polycystic Ovary Syndrome: A Comparison Against Doubly Labeled Water. | PCOS | 28 | 28.6 (5) | 104.1 (19.3) | 161.52 (NA) | 39.9 (8.3) | 51.6 (15.4) | 52.5 (7.5) | White/Caucasian - 50%, African American - 50% | Physical activity level (ratio of TDEE/RMR) = 1.6 (SD = 0.2) | USA | Fasting glucose (md/dL) = 89.9 (SD = 6.9), Fasting insulin (uU/mL) = 18.8 (SD = 10.6), HOMA-IR = 4.3 (SD = 2.7) | n | y | n |
| Tosi et al., | 2024 | Resting energy expenditure in women with polycystic ovary syndrome | PCOS | 266 | 23.3 (5.2) | NA (NA) | NA (NA) | 28.3 (7.4) | 27.1 (14.4) | 49 (7.7) |  |  | Italy | Hyperinsulinemic euglycemic clamp technique, M-value (mg/kg\_FFM x min) = 9.8 (SD = 3.7), 72.5% classified as IR based on cut off value of 11.76, Fasting glucose (mg/dL) = 85.3 (SD = 9.5), Fasting insulin (mU/L) = 16.2 (SD = 12.6) | n | n | n |
| 2024 | Resting energy expenditure in women with polycystic ovary syndrome | Control | 51 | 25.2 (3.6) | NA (NA) | NA (NA) | 20.4 (2) | 13.6 (5.4) | 42.8 (4.6) |  |  | Italy | Fasting glucose (mg/dL) = 83.4 (SD = 5.9), Fasting insulin (mU/L) = 7 (SD = 5) | n | n | n |