**Info for readme file to accompany *Physiological Reports*** **data archive**

Archived data pertaining to article: Walhin, J.P., Dixon, N., [Betts, J. A.](http://www.bath.ac.uk/view/person_id/1737.html) & Thompson, D. (2016) **The impact of exercise intensity on whole body and adipose tissue metabolism during energy restriction in sedentary overweight men and postmenopausal women [ISRCTN86152135].** *Physiological Reports.* **In press.**

The trial is registered with the International Standard Randomised Controlled Trial Number Register (ISRCTN), available at [www.controlled-trials.com](http://www.controlled-trials.com) (ref: ISRCTN86152135).

As described in the above protocol, all blood parameters reported in the associated data archive relate to venous samples drawn at 0800 h (± 1 h; hours) in an overnight (10 h) fasted state. Glucose and insulin measures during the OGTT were obtained through venous sampling as described in the manuscript. All samples for a given patient were analysed in duplicate as a batch within the same assay/plate.

Any missing data-points are denoted as ‘NA’ in the data-set.

HEIGHT

Distance from the floor (feet against the wall, barefoot, ankles together) to the top of the head (against the wall, looking ahead) after maximal inspiration and straight legs was measured to the nearest 0.1 cm using a wall-mounted stadiometer (Holtain Ltd., UK).

BODY MASS

The weight of each patient was measured to the nearest 100 g using electronic scales (TANITA Inner Scan Body Composition Monitor-BC453, Tokyo) whilst they wore minimal clothing (lightweight shorts only for males; lightweight shorts plus lightweight vest-top for females), with the same clothing standardised between baseline and follow-up.

BODY MASS INDEX (BMI)

Body mass index was calculated as BMI=body mass (kg) / height (m2).

BODY COMPOSITION/PERCENTAGE BODY FAT

Lean, adipose tissue and abdominal fat (L1-L4) mass were measured to the nearest 1 g using Dual Energy X-ray Absorptiometry (DEXA; Hologic Discovery W) with patients wearing the same minimal clothing as described for BODY MASS (therefore having removed any metal items)

BLOOD PRESSURE

Blood pressure was measured using an automated blood pressure monitor (Dinamap PRO Series 100, GE Medical Systems, Germany) in a seated position after subjects had rested for at least 10 minutes. Three readings were taken; the mean value was calculated.

WAIST & HIP CIRCUMFERENCE

The distance around the waist and hip were measured with a metallic (non-elastic) tape-measure based on WHO guidelines for anatomical landmarks (i.e. the mid-point from lowest rib to top of iliac crest and the widest gluteal girth. The average of three measurements was accepted with agreement <1 cm between them.

MAXIMAL OXYGEN UPTAKE TEST

Participants underwent a maximal oxygen uptake test on a treadmill prior to the intervention (Woodway, ELG 70, Weiss, Germany). The percentage of O2 and CO2 in expired air samples was determined using paramagnetic and infrared gas analysers, respectively (Series 1400, Servomex Ltd., Sussex, UK).

TOTAL CHOLESTEROL

Blood serum concentrations of total cholesterol were assayed using a Cobas Mira (Cobas, Roche Diagnostics Limited, UK).

HIGH-DENSITY LIPOPROTEIN (HDL) CHOLESTEROL

Blood serum concentrations of HDL cholesterol were assayed using a Cobas Mira (Cobas, Roche Diagnostics Limited, UK).

LOW-DENSITY LIPOPROTEIN (LDL) CHOLESTEROL

Blood serum concentrations of HDL cholesterol were calculated using the Friedwald equation (LDL cholesterol = Total cholesterol - HDL cholesterol - [triacylglycerol/2.2]).

TRIACYLGLYCEROL

Blood serum concentrations of triacylglycerol were assayed using a Cobas Mira (Cobas, Roche Diagnostics Limited, UK).

NON-ESTERIFIED FATTY ACIDS (NEFA)

Blood serum concentrations of NEFA were assayed using a Cobas Mira (Cobas, Roche Diagnostics Limited, UK).

ALANINE TRANSAMINASE (ALT)

Blood serum concentrations of ALT were assayed using a Cobas Mira (Cobas, Roche Diagnostics Limited, UK).

INTERLEUKIN-6

Blood serum concentrations of interleukin-6 were assayed via a High Sensitivity Enzyme-Linked Immuno-Sorbent Assay (ELISA; R&D Systems, Abingdon, UK).

C-REACTIVE PROTEIN (CRP)

Blood serum concentrations of CRP were assayed using an Enzyme-Linked Immuno-Sorbent Assay (ELISA; R&D Systems, Abingdon, UK).

LEPTIN

Blood serum concentrations of leptin were assayed via Enzyme-Linked Immuno-Sorbent Assay (ELISA; R&D Systems, Abingdon, UK).

ADIPONECTIN

Blood serum concentrations of adiponectin were assayed via Enzyme-Linked Immuno-Sorbent Assay (ELISA; R&D Systems, Abingdon, UK).

GLUCOSE

Blood plasma (EDTA-treated) concentrations of glucose were assayed using a Cobas Mira (Cobas, Roche Diagnostics Limited, UK).

INSULIN

Blood serum concentrations of insulin were assayed via Enzyme-Linked Immuno-Sorbent Assay (ELISA; Mercodia, Uppsala).

HOMA-IR

The fasted glucose and insulin data were used to calculate HOMA-IR using the equation: (fasting insulin [mIU/L]\*fasting glucose [mmol/L])/22.5.

HOMA-B

Homeostasis model assessment for *β*-cell function (HOMA-*β*) was calculated as fasting insulin (mIU/L)×20/fasting glucose (mmol/L) – 3.5.

C-ISI MATSUDA INDEX

The fasted glucose and insulin data were combined with the mean glycemic and insulinemic responses over 2 h during the oral glucose tolerance test and used to calculate C-ISI Matsuda Index using the equation: 10000/SQRT((fasting glucose [mg/dL]\*fasting insulin [mIU/L])\*(mean glucose [mg/dL]\*mean insulin [mIU/L])).

WHOLE BLOOD WHITE BLOOD CELL COUNT (WBC)

Whole blood differential leukocytes counts (WBC) were obtained using an automated haematology system (SF-300, Sysmex Ltd., Milton Keynes, UK).

REAL TIME PCR

Real-time PCR was performed using a StepOneTM (Applied Biosystems, Warrington, UK). PPIA (Peptidylpropyl isomerase A) was used as an endogenous control. The comparative Ct method was used to process the data where ΔCt = Ct Target gene – Ct Endogenous control. Data was normalized to an internal calibrator and baseline.