**Supplementary Table S1**: Description and discretization of variables

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| Variable | Description | Class |
| fGTOL | glucose tolerance at 4-year follow-up | NGT, IGT, DM |
| cGTOL | glucose tolerance at the time of data collection | NGT, IGT, DM |
| Sex | Sex | Male, Female |
| Drink | alcohol intake | Non-drinker, Ex-drinker, Current drinker |
| Smoke | smoking status | Non-smoker, Ex-smoker, Current smoker |
| Exercise | exercise | No, Yes |
| DMFMY | DM family history | No, Yes |
| Age | age (years) | < 50; 50 - 60; 60 -70; 70 |
| Waist | waist circumference (cm) | < 85; 85 (female), < 90; 90 (male) |
| BMI | body mass index (kg=m2) | < 23; 23 - 25; 25- 30; 30 -35; 35 |
| sysBP | systolic blood pressure (mm Hg) | < 120; 120-130; 130-140; 140 |
| HbA1c | glycated haemoglobin A1c | <5.5; 5.5-6.6; 6:6 |
| HOMA-β | homeostasis model assessment of β-cell function | < 76; 76-114; 114 |
| HOMA-IR | homeostasis model assessment for insulin resistance | < 1.6; 1.6- 2.5; 2.5 |
| TCHL | total cholesterol (mg/dL) | < 200; 200- 230; 230 |
| HDL | high-density lipoprotein cholesterol (mg/dL) | < 40; 40-60; 60 |
| TG | triglycerides (mg/dL) | < 150; 150- 200; 200 |
| ALT | alanine aminotransferase (IU/L) | < 40; 40 |
| AST | aspartate aminotransferase (IU/L) | < 40; 40 |
| hsCRP | high-sensitivity C-reactive protein (mg/L) | < 1; 1- 3; 3 |
| AhRL | aryl hydrocarbon receptor ligands (pM, TCDDeq) | < 2.7; 2.7 |
| MIS-ATP | mitochondria-inhabiting substances determined by ATP contents (%) | < 88.07; 88.07 |
| MIS-ROS | mitochondria-inhabiting substances determined by ROS levels (%) | < 120;120 |