



Supplemental Figure 1: Plasma glucose, insulin, and C-peptide concentrations, and glucose infusion rates (GIR) during the IVGTT in women (a) and men (b) and the hyperinsulinemic euglycemic clamp in women (c) and men (d), which as the 2 component tests of the Botnia clamps conducted in non-diabetic postmenopausal women (N = 61) and age-matched men (N = 37) with overweight and obesity.

Supplemental Table 1: Sex-specific models to predict 1st phase, 2nd phase and total GIISIVGTT, glucose-induced C-peptide secretionIVGTT and insulin sensitivity (GIRclamp) measured during the Botnia-clamps in 98 middle-aged men and postmenopausal women with overweight and obesity, but no chronic disease or medication affecting metabolism.

| Women | |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 1 st phase GIISIVGTT | = 178 + (Log ₁₀ Insulin × 1409) – (Glucose * 303) + (ApoB * 438) |
| 2 nd phase GIISIVGTT | = – 5458 + (Log ₁₀ Insulin * 5683) + (ApoB * 1298) |
| Total GIISIVGTT | = – 6240 + (Log ₁₀ Insulin * 7283) + (ApoB * 2632) – (Glucose * 894) + (Waist * 31) – (Log ₁₀ TG * 1963) |
| 1 st phase C-peptide secretionIVGTT | = 76 + (C-peptide * 18.3) – (Glucose * 13.9) |
| Total C-peptide secretionIVGTT | = 319 + (C-peptide * 129) – (Glucose * 58.1) |
| Insulin sensitivity (GIRclamp) | = 30.9 – (Log ₁₀ Insulin * 8.37) – (Waist * 0.130) + (HDL-C * 3.03) |
| Men | |
| 1 st phase GIISIVGTT | = 1369 + (Log ₁₀ Insulin * 1863) – (Glucose * 539) |
| 2 nd phase GIISIVGTT | = – 5934 + (Log ₁₀ Insulin * 7850) – (Glucose * 1137) + (BMI * 104) + (TC * 413) |
| Total GIISIVGTT | = – 4859 + (Log ₁₀ Insulin * 9652) – (Glucose * 1680) + (BMI * 108) + (TC * 466) |
| 1 st phase C-peptide secretionIVGTT | = 11.6 + (C-peptide * 17.0) |
| Total C-peptide secretionIVGTT | = 75.6 + (C-peptide * 111) |
| Insulin sensitivity (GIRclamp) | = 55.9 – (Log ₁₀ Insulin * 8.43) – (Waist * 0.134) – (Glucose * 3.63) |