

## Tables

N=97	Pre-menopausal	Post-menopausal	Δ-change
<b>Demographics</b>			
Age (years)	46.7 (1.2)	51.8 (0.9)	5.1 (0.9) <sup>a</sup>
<b>Anthropometry</b>			
Height (cm)	165.5 (6.4)	165.2 (6.6)	-0.3 (1.3) <sup>b</sup>
Weight (kg) <sup>c</sup>	66.4 (59.6, 73.2)	67.0 (60.6, 73.4)	0.5 (4.8)
BMI (kg/m <sup>2</sup> )	25.4 (0.5)	25.1 (0.4)	0.30 (1.9)
<b>Metabolic traits</b>			
Systolic Blood Pressure (mmHg)	116 (13)	123 (14)	7.2 (13.0) <sup>a</sup>
Diastolic Blood Pressure (mmHg)	73 (9)	76 (9)	3.2 (7.7) <sup>a</sup>
CRP (mg/L) <sup>c</sup>	0.30 (-0.04, 0.64)	0.38 (-0.15, 0.91)	0.4 (1.8) <sup>d</sup>
Glucose (mmol/L) <sup>c</sup>	5.1 (4.9, 5.4)	5.2 (4.9, 5.5)	0.05 (0.48)
Insulin (mU/L) <sup>c</sup>	11.8 (9.3, 14.3)	10.6 (7.9, 13.2)	0.7 (15.15)
NEFA (μmol/L) <sup>c</sup>	475 (322.6, 591.2)	415 (242.3, 569.0)	-60 (264) <sup>a</sup>
Triglyceride (mmol/L) <sup>c</sup>	0.79 (0.59, 1.00)	0.80 (0.58, 1.02)	0.06 (0.45)
Total cholesterol (mmol/L)	5.25 (0.98)	5.36 (1.01)	0.1 (0.79)
HDL cholesterol (mmol/L)	1.60 (0.41)	1.58 (0.46)	-0.02 (0.36)
LDL-C (mmol/L)	3.23 (0.83)	3.33 (0.86)	0.1 (0.71)
ApoB (g/L)	0.90 (0.22)	1.00 (0.24)	0.1 (0.14) <sup>a</sup>
PCSK-9 (ng/ml)	452 (292, 612)	369 (196, 542)	-112.5 (456.7) <sup>d</sup>
FSH (IU/L) <sup>c</sup>	10.0 (8.0, 12.0)	49.0 (14.0, 85.0)	38.4 (39.5) <sup>a</sup>
<b>DEXA body composition</b>			
Fat mass total (kg) <sup>c</sup>	21.4 (16.5, 26.2)	23.1 ( 18.3, 27.9)	1.3 (4.28) <sup>d</sup>
Abdominal Subcutaneous Fat mass (kg)	1.3 (0.66)	1.4 (0.69)	0.1 (0.36) <sup>b</sup>
Android fat mass (kg) <sup>c</sup>	1.6 (1.0, 2.1)	1.6 (1.0, 2.2)	0.1 (0.51) <sup>b</sup>
Visceral Adipose Tissue (kg) <sup>c</sup>	0.29 (0.12, 0.46)	0.31 (0.04, 0.58)	0.06 (0.21) <sup>d</sup>
Leg fat mass (kg) <sup>c</sup>	7.8 (6.2, 9.5)	8.5 (6.7, 10.3)	0.4 (1.32) <sup>d</sup>
Lean mass total (kg)	41.9 (4.7)	41.5 (4.6)	-0.4 (1.46) <sup>b</sup>
Lean mass legs (kg)	14.1 (2.0)	13.8 (2.0)	-0.2 (0.71) <sup>d</sup>

Values are presented as mean + SD for parametric data and median + IQR for nonparametric. Delta (Δ) value presented with SD. <sup>c</sup>Nonparametric Wilcoxon test otherwise paired t-test used. <sup>c</sup> Log-transformed for analysis and back-transformed for presentation. <sup>b</sup> P < .05, <sup>d</sup> P < .01, <sup>a</sup> P < .001. p-values represent comparison of mean/median difference between post-menopausal and premenopausal variables.

*Abbreviations:* BMI, Body mass index; CRP, C-reactive protein; NEFA, Non-Esterified Fatty Acids; HDL, High density lipoprotein; LDL, Low density lipoprotein; ApoB, Apolipoprotein B; PCSK-9, Proprotein convertase subtilisin/kexin type; FSH, Follicle stimulating hormone.

**Table 1. Clinical characteristics of the study population**

		<i>z</i> - Δ SBP		<i>z</i> -Δ DBP		<i>z</i> -Δ ApoB	
		<b>β (95% CI)</b>	<b>P value</b>	<b>β (95% CI)</b>	<b>P value</b>	<b>β (95% CI)</b>	<b>P value</b>
<b>Premenopausal</b>	<b>Unadjusted model</b>						
	<i>z</i> - <b>Fat mass</b>						
	<i>z</i> -Android	0.08 (-0.13, 0.28)	0.45	0.08 (-0.13, 0.28)	0.46	0.09 (-0.12, 0.29)	0.37
	<i>z</i> - Subcutaneous	0.15 (-0.06, 0.34)	0.15	0.14 (-0.06, 0.34)	0.16	0.09 (-0.11, 0.29)	0.39
	<i>z</i> -VAT	-0.08 (-0.29, 0.12)	0.39	-0.08 (-0.28, 0.12)	0.43	0.07 (-0.13, 0.28)	0.47
	<i>z</i> -Leg	0.19 (-0.01, 0.39)	0.07	0.11 (-0.09, 0.31)	0.29	0.05 (-0.15, 0.25)	0.62
	<i>z</i> -Total fat mass	0.12 (-0.08, 0.32)	0.25	0.07 (-0.12, 0.27)	0.47	0.08 (-0.12, 0.29)	0.42
	<i>z</i> - <b>Lean mass</b>						
	<i>z</i> -Leg	-0.04 (-0.24, 0.17)	0.69	0.09 (-0.11, 0.29)	0.40	0.06 (-0.15, 0.26)	0.58
	<i>z</i> -Total lean	-0.06 (-0.26, 0.14)	0.59	0.08 (-0.12, 0.29)	0.47	0.03 (-0.18, 0.23)	0.81
	<b>Adjusted model<sup>a</sup></b>						
	<i>z</i> - <b>Fat mass</b>						
	<i>z</i> -Android	-0.25 (-0.86, 0.35)	0.41	0.22 (-0.37, 0.82)	0.45	0.22 (-0.42, 0.87)	0.49
	<i>z</i> -Subcutaneous	0.33 (-0.27, 0.92)	0.28	0.72 (0.16, 1.28)	<b>0.013</b>	0.08 (-0.55, 0.71)	0.80
<i>z</i> -VAT	-0.39 (-0.67, -0.11)	<b>0.007</b>	-0.25 (-0.52, 0.03)	0.09	0.11 (-0.19, 0.42)	0.47	
<i>z</i> -Leg	0.16 (-0.23, 0.56)	0.42	-0.07 (-0.46, 0.33)	0.74	-0.16 (-0.57, 0.26)	0.45	
<i>z</i> - <b>Lean mass</b>							
<i>z</i> -Leg	-0.72 (-0.29, 0.14)	0.51	0.04 (-0.17, 0.25)	0.69	-0.02 (-0.24, 0.21)	0.89	
<i>z</i> -Total lean	-0.05 (-0.25, 0.16)	0.66	0.06 (-0.14, 0.25)	0.58	-0.06 (-0.27, 0.16)	0.61	

<sup>a</sup> adjusted for premenopausal total fat mass, time between visits, premenopausal age and baseline outcome value. B-estimate represents the SD Δ (postmenopausal – premenopausal) change in the outcome variable corresponding to a 1SD change in the premenopausal fat depots  
Abbreviations: SBP, Systolic blood pressure; DBP, Diastolic blood pressure; ApoB, Apolipoprotein B; VAT, Visceral adipose tissue.

**Table 2. Linear regression analyses (unadjusted & adjusted) using premenopausal z-DEXA body composition as the independent variable and z-transformed within woman change (postmenopausal – premenopausal value, *z*- Δ) traits**



	z-Δ SBP		z-Δ DBP		z-Δ ApoB	
	β (95% CI)	P value	β (95% CI)	P value	β (95% CI)	P value
<b>Unadjusted model</b>						
<i>z-Δ Fat mass</i>						
z-Δ Android	0.10 (-0.10, 0.31)	0.32	0.22 (0.20, 0.42)	<b>0.031</b>	0.24 (0.04, 0.43)	<b>0.020</b>
z-Δ Subcutaneous	0.03 (-0.17, 0.24)	0.72	0.13 (-0.06, 0.33)	0.20	0.17 (-0.03, 0.37)	0.10
z-Δ VAT	0.12 (-0.09, 0.32)	0.25	0.22 (0.03, 0.42)	<b>0.027</b>	0.21 (0.01, 0.42)	<b>0.035</b>
z-Δ Leg	0.12 (-0.08, 0.32)	0.24	0.12 (-0.08, 0.32)	0.24	0.18 (-0.02, 0.37)	0.08
z-Δ Total fat mass	0.11 (-0.09, 0.31)	0.27	0.18 (-0.02, 0.38)	0.08	0.24 (0.03, 0.43)	<b>0.020</b>
<i>z-Δ Lean mass</i>						
z-Δ Leg	0.13 (-0.08, 0.32)	0.22	0.10 (-0.11, 0.30)	0.34	-0.03 (-0.23, 0.18)	0.78
z-Δ Total lean	0.15 (-0.06, 0.35)	0.15	0.09 (-0.11, 0.29)	0.38	-0.05 (-0.25, 0.16)	0.64
<b>Adjusted model<sup>a</sup></b>						
<i>z-Δ Fat mass</i>						
z-Δ Android	0.25 (-0.51, 1.02)	0.51	0.88 (0.16, 1.60)	<b>0.017</b>	-0.11 (-0.88, 0.65)	0.77
z-Δ Subcutaneous	-0.16 (-0.54, 0.22)	0.41	-0.07 (-0.43, 0.30)	0.72	-0.22 (-0.61, 0.16)	0.24
z-Δ VAT	0.13 (-0.18, 0.43)	0.41	0.23 (-0.05, 0.53)	0.11	0.06 (-0.25, 0.37)	0.71
z-Δ Leg	0.08 (-0.38, 0.53)	0.74	-0.25 (-0.69, 0.19)	0.26	-0.19 (-0.65, 0.28)	0.43
<i>z-Δ Lean mass</i>						
z-Δ Leg	-0.12 (-0.09, 0.32)	0.26	0.13 (-0.07, 0.33)	0.21	-0.07 (-0.27, 0.14)	0.51
z-Δ Total Lean	0.14 (-0.07, 0.35)	0.19	0.11 (-0.09, 0.31)	0.27	-0.08 (-0.29, 0.14)	0.46

<sup>a</sup> adjusted for z- Δ-total fat mass, time between visits, premenopausal age and baseline outcome value.

B-estimate represents the SD Δ (postmenopausal – premenopausal) change in the outcome variable corresponding to a 1SD z-transformed Δ (postmenopausal – premenopausal fat depots)

Abbreviations: SBP, Systolic blood pressure; DBP, Diastolic blood pressure; ApoB, Apolipoprotein B; VAT, Visceral adipose tissue.

**Table 3. Linear regression analyses (unadjusted & adjusted) using z-transformed within woman change (postmenopausal – premenopausal value) = Δ for DEXA body composition as the independent variable and the Δ of systolic blood pressure, diastolic blood pressure and ApoB as the dependent variable**

