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Table S1. Serum lipid constituents and low molecular-weight metabolites of study population stratified by MHO and MetS categories

	MHO		MetS		p-value	adj. p-value
	n=42		n=36			
<i>Lipid extract constituents</i>						
esterified cholesterol	3.588	(0.453)	4.096	(0.669)	0.0002	0.0029
free cholesterol	1.403	(0.190)	1.608	(0.268)	0.0002	0.0060
ω -3 fatty acids	0.389	(0.111)	0.478	(0.158)	0.0053	0.0210
ω -6 fatty acids	3.540	(0.469)	4.020	(0.690)	0.0006	0.0008
ω -7, ω -9 fatty acids	6.669	(0.917)	8.956	(2.373)	<0.0001	<0.0001
Total fatty acids	10.59	(1.344)	13.45	(3.054)	<0.0001	<0.0001
Linoleic acid	3.086	(0.453)	3.529	(0.687)	0.0015	0.0008
Polyunsaturated fatty acids	1.978	(0.384)	2.358	(0.550)	0.0007	0.0092
Docosahexaenoic acid	0.172	(0.051)	0.203	(0.064)	0.0200	0.0676
Monounsaturated fatty acids	3.154	(0.484)	4.371	(1.325)	<0.0001	<0.0001
Phosphoglycerides	0.890	(0.121)	1.011	(0.212)	0.0039	0.0097
phosphatidylcholine and other cholines	2.198	(0.276)	2.424	(0.443)	0.0118	0.0242
Sphingomyelins	0.401	(0.055)	0.434	(0.059)	0.0110	0.0843
ω -3 fatty acids/ total fatty acids (%)	3.661	(0.913)	3.548	(0.787)	0.6542	0.3512
ω -6 fatty acids/ total fatty acids (%)	33.45	(2.176)	30.36	(3.645)	<0.0001	0.0001
ω -7, ω -9/total fatty acids (%)	62.88	(2.356)	66.08	(3.626)	<0.0001	0.0001
Av.number of methylene groups in a fatty acid chain	9.773	(0.169)	9.862	(0.162)	0.0203	0.0048
triglycerides/phosphoglycerides	1.221	(0.271)	1.773	(0.455)	<0.0001	<0.0001

Av. number of methylene groups per double bond	7.945	(0.563)	8.371	(0.543)	0.0002	0.0011
Av. number of double bonds in a fatty acid chain	1.235	(0.067)	1.182	(0.064)	0.0001	0.0007
bisallylic groups/double bonds (%)	0.535	(0.024)	0.517	(0.027)	0.0031	0.0023
bisallylic groups/total fatty acids (%)	0.661	(0.061)	0.612	(0.062)	0.0002	0.0006
description of average fatty acid chain length	18.051	(0.117)	17.978	(0.130)	0.0115	0.0083
<i>Low molecular-weight metabolites</i>						
3-hydroxybutyrate	0.108	(0.061)	0.099	(0.033)	0.8159	0.4740
Acetate	0.080	(0.012)	0.079	(0.013)	0.7852	0.8003
Acetoacetate	0.060	(0.036)	0.056	(0.026)	0.8571	0.5093
Alanine	0.447	(0.059)	0.483	(0.048)	0.0032	0.0180
Citrate	0.092	(0.015)	0.088	(0.012)	0.3394	0.9006
Creatinine	0.066	(0.009)	0.065	(0.008)	0.6758	0.8449
Glutamine	0.531	(0.081)	0.511	(0.084)	0.2651	0.9052
Glycerol	0.082	(0.023)	0.102	(0.031)	0.0007	0.0160
Glycine	0.290	(0.060)	0.280	(0.055)	0.4398	0.1177
Orosomucoid	1.767	(0.171)	1.966	(0.249)	<0.0001	0.0003
Histidine	0.074	(0.009)	0.074	(0.009)	0.8994	0.6774
Isoleucine	0.059	(0.010)	0.073	(0.015)	<0.0001	<0.0001
Leucine	0.094	(0.014)	0.112	(0.020)	<0.0001	<0.0001
Valine	0.221	(0.032)	0.233	(0.037)	0.1255	0.0965
Phenylalanine	0.080	(0.011)	0.088	(0.014)	0.0055	0.0229
Pyruvate	0.103	(0.038)	0.112	(0.042)	0.3067	0.6077
Tyrosine	0.060	(0.013)	0.064	(0.010)	0.0535	0.0249
Urea	0.053	(0.019)	0.052	(0.029)	0.7331	0.1757
Lactate	1.080	(0.257)	1.280	(0.373)	0.0147	0.0186

Mean (SD) concentrations of metabolites assayed in the present study. All metabolites are in mmol/l unless stated otherwise.

P-values are for 2-tailed t-tests comparing concentrations for the MHO and MetS groups with and without adjustment for age, fat mass and waist circumference.