

SUPPLEMENTARY DATA

Supplementary Table 1. Drop-out analysis: comparison of study participants with and without available adiponectin data at baseline.

Control group	No available adiponectin		Available adiponectin		
	Mean	SD	Mean	SD	<i>P</i>
N	187		1729		
Sex (% male)	21.4		30.3		0.012
Age (yrs)	49.0	6.4	48.9	6.2	0.869
Body weight (kg)	114.8	17.9	114.4	16.2	0.768
Total cholesterol (mmol/l)	5.73	1.07	5.61	1.05	0.138
Fasting blood glucose (mmol/l)	4.8	1.5	5.0	1.9	0.190
Surgery group	No available adiponectin		Available adiponectin		
	Mean	SD	Mean	SD	<i>P</i>
N	133		1570		
Sex (% male)	21.8		30.9		0.030
Age (yrs)	47.8	6.0	47.2	6.0	0.301
Body weight (kg)	121.9	15.0	121.0	16.8	0.556
Total cholesterol (mmol/l)	5.80	1.12	5.86	1.13	0.552
Fasting blood glucose (mmol/l)	5.0	1.7	5.2	2.1	0.330

SUPPLEMENTARY DATA

Supplementary Table 2. Drop-out analysis: comparison of study participants with and without available 2-yr data for adiponectin.

Control group	No available adiponectin		Available adiponectin		
	Mean	SD	Mean	SD	<i>P</i>
N	119		1445		
Sex (% male)	21.0		30.8		0.027
Age (yrs)	49.6	6.2	49.0	6.1	0.270
Body weight (kg)	115.4	17.4	114.3	16.1	0.480
Total cholesterol (mmol/l)	5.81	1.14	5.59	1.05	0.030
Fasting blood glucose (mmol/l)	4.9	1.5	4.9	1.8	0.881
Surgery group	No available adiponectin		Available adiponectin		
	Mean	SD	Mean	SD	<i>P</i>
N	123		1441		
Sex (% male)	21.2		30.7		0.027
Age (yrs)	48.2	5.9	47.4	6.0	0.136
Body weight (kg)	121.9	15.0	120.6	16.6	0.395
Total cholesterol (mmol/l)	5.79	1.10	5.86	1.13	0.523
Fasting blood glucose (mmol/l)	4.9	1.4	5.2	2.0	0.197

SUPPLEMENTARY DATA

Supplementary Table 3. Baseline characteristics of the study population stratified by incidence of diabetes for each treatment group.

Control group	No incident diabetes		Incident diabetes		
	Mean or median*	SD or IQR*	Mean or median*	SD or IQR*	<i>P</i>
N	1117		380		
Sex (% male)	24.7		39.4		<0.001
Age (yrs)	48.4	6.1	49.5	6.2	0.004
Body weight (kg)	113.6	16.1	115.8	16.5	0.022
BMI (kg/m ²)	40.0	4.7	40.0	4.6	0.880
Systolic blood pressure (mmHg)	136.2	17.3	139.3	18.2	0.003
Diastolic blood pressure (mmHg)	84.4	10.2	85.9	11.1	0.016
Total cholesterol (mmol/l)	5.60	1.02	5.61	1.07	0.966
HDL cholesterol (mmol/l)	1.39	0.33	1.29	0.33	<0.001
Triglycerides (mmol/l)*	1.59	1.02	1.88	0.99	<0.001
Fasting blood glucose (mmol/l)	4.2	0.5	4.8	0.7	<0.001
Insulin (μU/ml)*	13.7	10.1	18.1	12.6	<0.001
History of diabetes (%)	N/A		N/A		N/A
Alcohol consumption (g/day)*	2.4	6.8	2.1	7.1	0.505
Smoking (%)	20.1		21.0		0.715
Lipid-lowering medication (%)	1.2		1.6		0.538
Blood-pressure lowering medication (%)	22.9		29.9		0.006
Surgery group	No incident diabetes		Incident diabetes		
	Mean or median*	SD or IQR*	Mean or median*	SD or IQR*	<i>P</i>
N	1173		107		
Sex (% male)	28.0		35.5		0.099
Age (yrs)	46.9	6.0	48.0	5.9	0.051
Body weight (kg)	120.7	16.4	120.6	16.4	0.957
BMI (kg/m ²)	42.5	4.4	42.2	4.7	0.521
Systolic blood pressure (mmHg)	143.9	18.4	148.0	17.9	0.027
Diastolic blood pressure (mmHg)	89.6	11.2	90.5	11.0	0.412
Total cholesterol (mmol/l)	5.84	1.12	6.06	1.09	0.047
HDL cholesterol (mmol/l)	1.38	0.32	1.30	0.29	0.015
Triglycerides (mmol/l)*	1.83	1.09	1.92	1.44	0.312
Fasting blood glucose (mmol/l)	4.4	0.6	4.8	0.6	<0.001
Insulin (μU/ml)*	17.2	11.3	21.3	11.5	0.003
History of diabetes (%)					
Alcohol consumption (g/day)*	2.3	6.7	2.4	7.8	0.762
Smoking (%)	24.6		25.2		0.879
Lipid-lowering medication (%)	1.1		0.9		0.869
Blood-pressure lowering medication (%)	25.7		29.9		0.349

*Data are given as median value and IQR (interquartile range).

SUPPLEMENTARY DATA

Supplementary Table 4. Baseline characteristics of the study population stratified by incidence of cardiovascular events (CVE) for each treatment group.

Control group	No incident CVE		Incident CVE		
	Mean or median*	SD or IQR*	Mean or median*	SD or IQR*	<i>P</i>
N	1531		155		
Sex (% male)	27.5		51.0		<0.001
Age (yrs)	48.6	6.2	51.4	5.9	<0.001
Body weight (kg)	114.3	16.4	116.0	14.9	0.227
BMI (kg/m ²)	40.1	4.7	39.7	4.5	0.356
Systolic blood pressure (mmHg)	137.1	17.5	146.1	19.4	<0.001
Diastolic blood pressure (mmHg)	84.7	10.5	89.5	11.2	<0.001
Total cholesterol (mmol/l)	5.55	1.02	6.08	1.10	<0.001
HDL cholesterol (mmol/l)	1.36	0.33	1.26	0.30	0.001
Triglycerides (mmol/l)*	1.69	1.08	2.16	1.64	<0.001
Fasting blood glucose (mmol/l)	4.9	1.7	5.8	2.5	<0.001
Insulin (μU/ml)*	14.8	11.2	21.4	14.3	<0.001
History of diabetes (%)	11.4		27.3		<0.001
Alcohol consumption (g/day)*	2.1	6.7	2.6	10.6	0.443
Smoking (%)	18.8		36.4		<0.001
Lipid-lowering medication (%)	1.2		4.5		0.003
Blood-pressure lowering medication (%)	25.3		39.4		<0.001
Surgery group	No incident CVE		Incident CVE		
	Mean or median*	SD or IQR*	Mean or median*	SD or IQR*	<i>P</i>
N	1416		123		
Sex (% male)	28.5		50.4		<0.001
Age (yrs)	47.0	5.9	49.7	6.1	<0.001
Body weight (kg)	120.7	16.6	123.1	18.8	0.141
BMI (kg/m ²)	42.5	4.4	41.9	4.5	0.187
Systolic blood pressure (mmHg)	144.4	18.4	156.9	19.3	<0.001
Diastolic blood pressure (mmHg)	89.6	11.2	95.8	10.8	<0.001
Total cholesterol (mmol/l)	5.83	1.13	6.28	1.10	<0.001
HDL cholesterol (mmol/l)	1.36	0.32	1.30	0.34	0.052
Triglycerides (mmol/l)*	1.89	1.13	2.26	1.69	<0.001
Fasting blood glucose (mmol/l)	5.1	1.9	5.9	2.7	<0.001
Insulin (μU/ml)*	18.0	12.3	22.1	15.4	0.021
History of diabetes (%)	16.2		33.3		<0.001
Alcohol consumption (g/day)*	2.3	6.6	2.7	8.1	0.506
Smoking (%)	24.3		27.6		0.411
Lipid-lowering medication (%)	1.2		3.3		0.071
Blood-pressure lowering medication (%)	27.8		48.0		<0.001

*Data are given as median value and IQR (interquartile range).

SUPPLEMENTARY DATA

Supplementary Table 5. Baseline characteristics of the study population stratified by incidence of myocardial infarction (MI) for each treatment group.

Control group	No incident MI		Incident MI		
	Mean or median*	SD or IQR*	Mean or median*	SD or IQR*	<i>P</i>
N	1595		91		
Sex (% male)	28.2		56.0		<0.001
Age (yrs)	48.7	6.2	51.2	5.9	<0.001
Body weight (kg)	114.5	16.4	114.8	14.3	0.865
BMI (kg/m ²)	40.1	4.7	39.4	4.5	0.191
Systolic blood pressure (mmHg)	137.6	17.8	143.6	17.8	0.002
Diastolic blood pressure (mmHg)	85.0	10.6	87.8	10.2	0.013
Total cholesterol (mmol/l)	5.57	1.03	6.17	1.13	<0.001
HDL cholesterol (mmol/l)	1.36	0.33	1.25	0.30	0.004
Triglycerides (mmol/l)*	1.70	1.10	2.26	2.05	<0.001
Fasting blood glucose (mmol/l)	4.9	1.8	5.9	2.5	<0.001
Insulin (μU/ml)*	15.0	11.6	21.6	16.1	<0.001
History of diabetes (%)	11.8		30.8		<0.001
Alcohol consumption (g/day)*	2.1	6.8	3.3	10.3	0.329
Smoking (%)	19.3		40.0		<0.001
Lipid-lowering medication (%)	1.3		6.6		<0.001
Blood-pressure lowering medication (%)	25.8		39.6		0.004
Surgery group	No incident MI		Incident MI		
	Mean or median*	SD or IQR*	Mean or median*	SD or IQR*	<i>P</i>
N	1461		78		
Sex (% male)	29.0		53.8		<0.001
Age (yrs)	47.1	6.0	49.6	6.0	<0.001
Body weight (kg)	120.8	16.7	123.3	17.7	0.211
BMI (kg/m ²)	42.5	4.5	41.7	4.3	0.157
Systolic blood pressure (mmHg)	144.8	18.5	155.8	19.9	<0.001
Diastolic blood pressure (mmHg)	89.7	11.1	96.9	11.5	<0.001
Total cholesterol (mmol/l)	5.83	1.13	6.45	1.12	<0.001
HDL cholesterol (mmol/l)	1.36	0.32	1.29	0.29	0.102
Triglycerides (mmol/l)*	1.89	1.14	2.23	1.12	<0.001
Fasting blood glucose (mmol/l)	5.2	1.9	5.8	2.9	0.004
Insulin (μU/ml)*	18.1	12.4	20.4	15.3	0.121
History of diabetes (%)	17.1		25.6		0.056
Alcohol consumption (g/day)*	2.2	6.7	2.9	8.8	0.349
Smoking (%)	24.2		30.8		0.194
Lipid-lowering medication (%)	1.2		3.8		0.066
Blood-pressure lowering medication (%)	28.9		38.5		0.072

*Data are given as median value and IQR (interquartile range).

SUPPLEMENTARY DATA

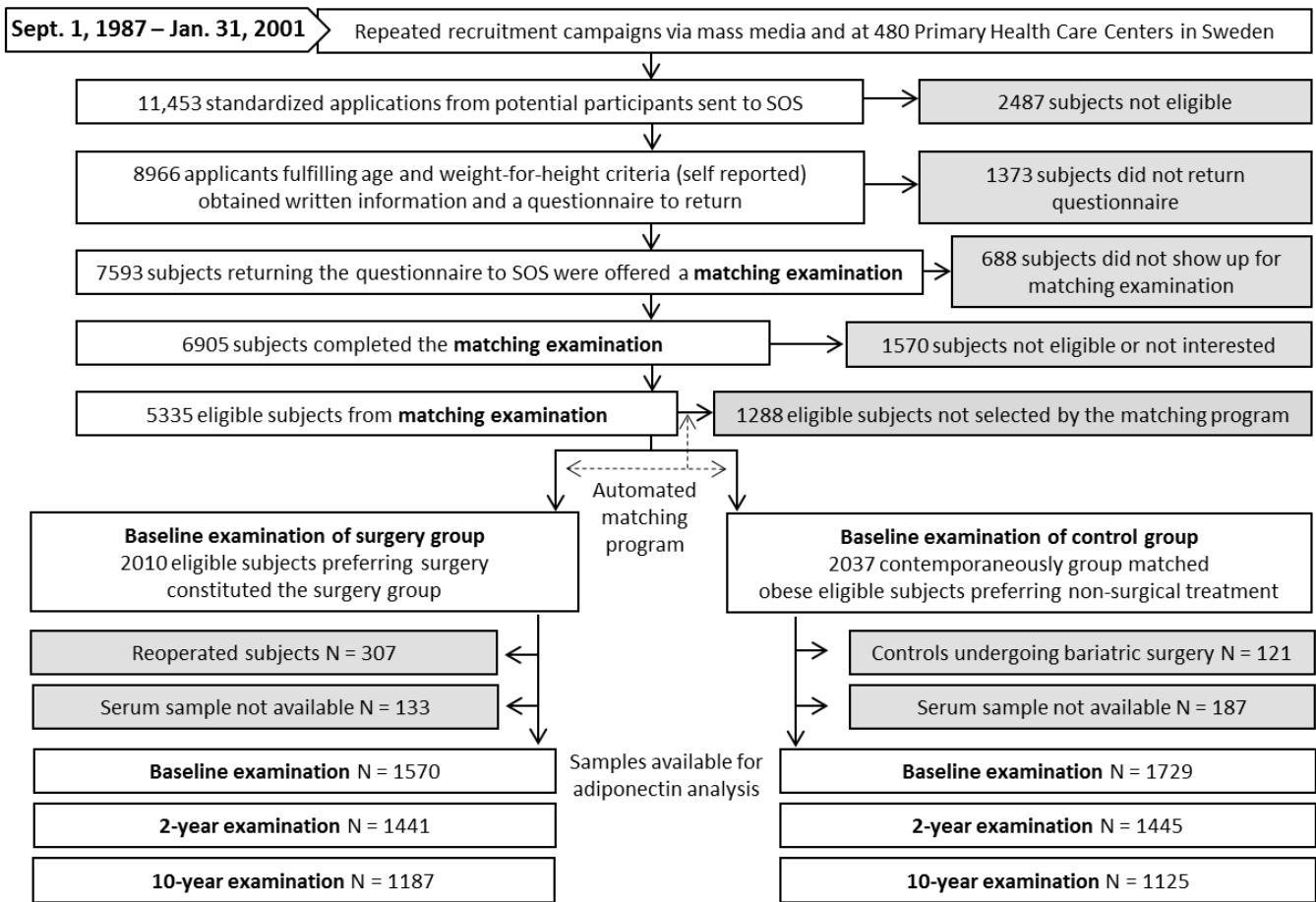
Supplementary Table 6. Baseline characteristics of the study population stratified by incidence of stroke for each treatment group.

Control group	No incident stroke		Incident stroke		
	Mean or median*	SD or IQR*	Mean or median*	SD or IQR*	<i>P</i>
N	1614		72		
Sex (% male)	29.0		44.4		0.006
Age (yrs)	48.7	6.2	51.7	5.8	<0.001
Body weight (kg)	114.3	16.2	118.3	17.2	0.043
BMI (kg/m ²)	40.0	4.7	40.4	5.2	0.441
Systolic blood pressure (mmHg)	137.4	17.6	150.0	20.4	<0.001
Diastolic blood pressure (mmHg)	84.8	10.5	92.0	11.7	<0.001
Total cholesterol (mmol/l)	5.59	1.04	5.94	1.01	0.004
HDL cholesterol (mmol/l)	1.36	0.33	1.27	0.31	0.028
Triglycerides (mmol/l)*	1.71	1.09	2.00	1.51	0.010
Fasting blood glucose (mmol/l)	4.9	1.8	5.7	2.5	<0.001
Insulin (μU/ml)*	15.0	11.5	21.5	13.6	<0.001
History of diabetes (%)	12.4		22.5		0.014
Alcohol consumption (g/day)*	2.1	6.8	2.3	11.2	0.806
Smoking (%)	19.8		34.7		0.003
Lipid-lowering medication (%)	1.5		1.4		0.914
Blood-pressure lowering medication (%)	26.1		37.5		0.034
Surgery group	No incident stroke		Incident stroke		
	Mean or median*	SD or IQR*	Mean or median*	SD or IQR*	<i>P</i>
N	1483		56		
Sex (% male)	29.5		48.2		0.004
Age (yrs)	47.1	6.0	50.0	5.9	<0.001
Body weight (kg)	120.8	16.6	124.3	20.3	0.126
BMI (kg/m ²)	42.4	4.4	42.3	4.8	0.829
Systolic blood pressure (mmHg)	144.8	18.5	160.9	19.2	<0.001
Diastolic blood pressure (mmHg)	89.9	11.3	95.3	9.4	<0.001
Total cholesterol (mmol/l)	5.86	1.14	6.02	0.95	0.297
HDL cholesterol (mmol/l)	1.35	0.32	1.29	0.39	0.157
Triglycerides (mmol/l)*	1.90	1.13	2.34	1.99	0.011
Fasting blood glucose (mmol/l)	5.1	2.0	6.5	2.8	<0.001
Insulin (μU/ml)*	18.1	12.4	22.1	16.8	0.278
History of diabetes (%)	16.5		46.4		<0.001
Alcohol consumption (g/day)*	2.3	6.8	1.9	5.6	0.789
Smoking (%)	24.6		23.2		0.809
Lipid-lowering medication (%)	1.3		3.6		0.166
Blood-pressure lowering medication (%)	28.1		64.3		<0.001

*Data are given as median value and IQR (interquartile range).

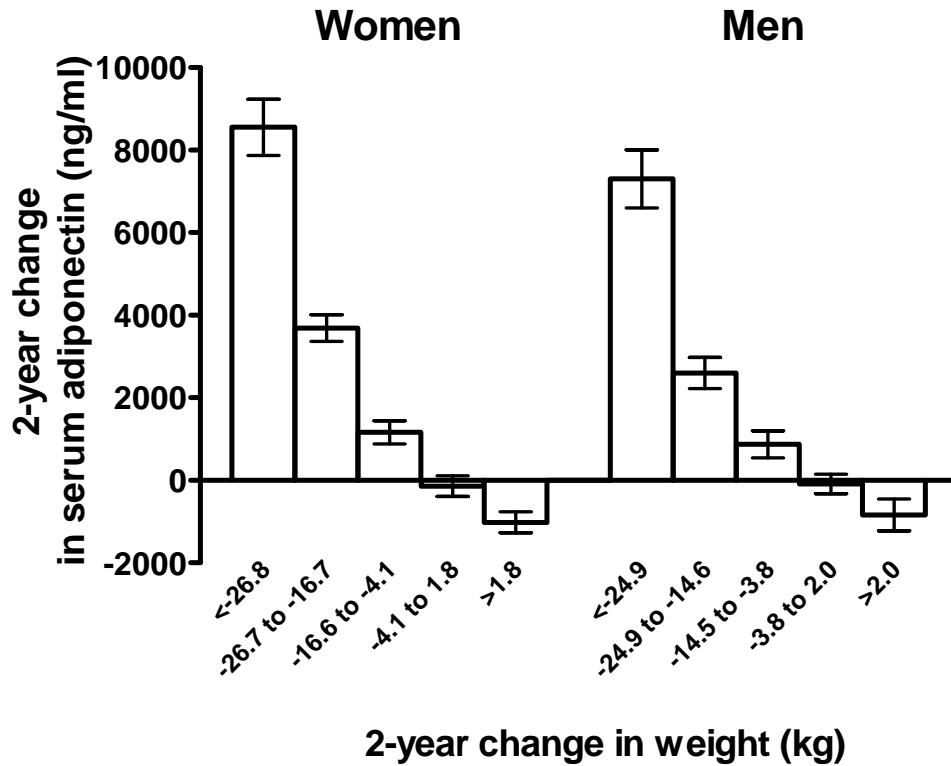
SUPPLEMENTARY DATA

Supplementary Figure 1. Design of the SOS Study.



SUPPLEMENTARY DATA

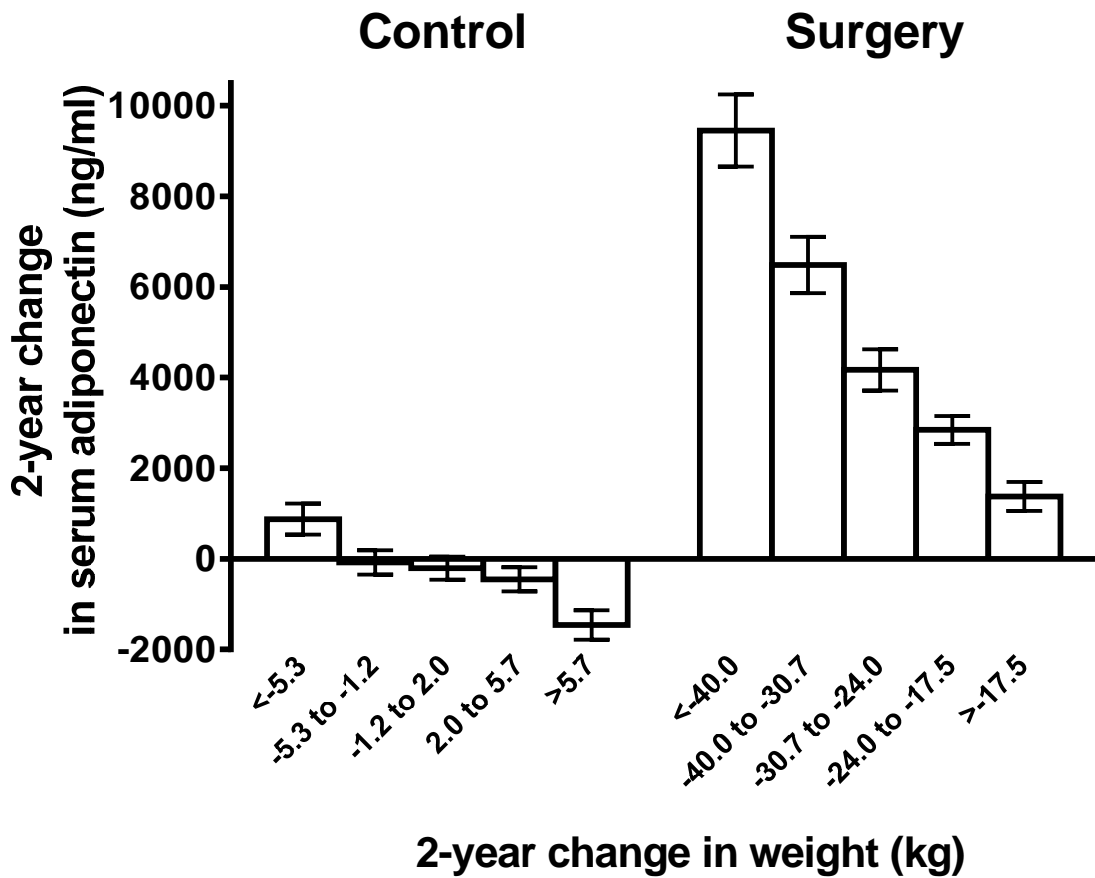
Supplementary Figure 2. Two-year changes in serum adiponectin by quintiles of weight change in the SOS study population (stratified by sex).



Data are given as mean changes with 95% CI for each quintile of weight change as indicated below the x-axis (analyses for control and surgery groups combined).

SUPPLEMENTARY DATA

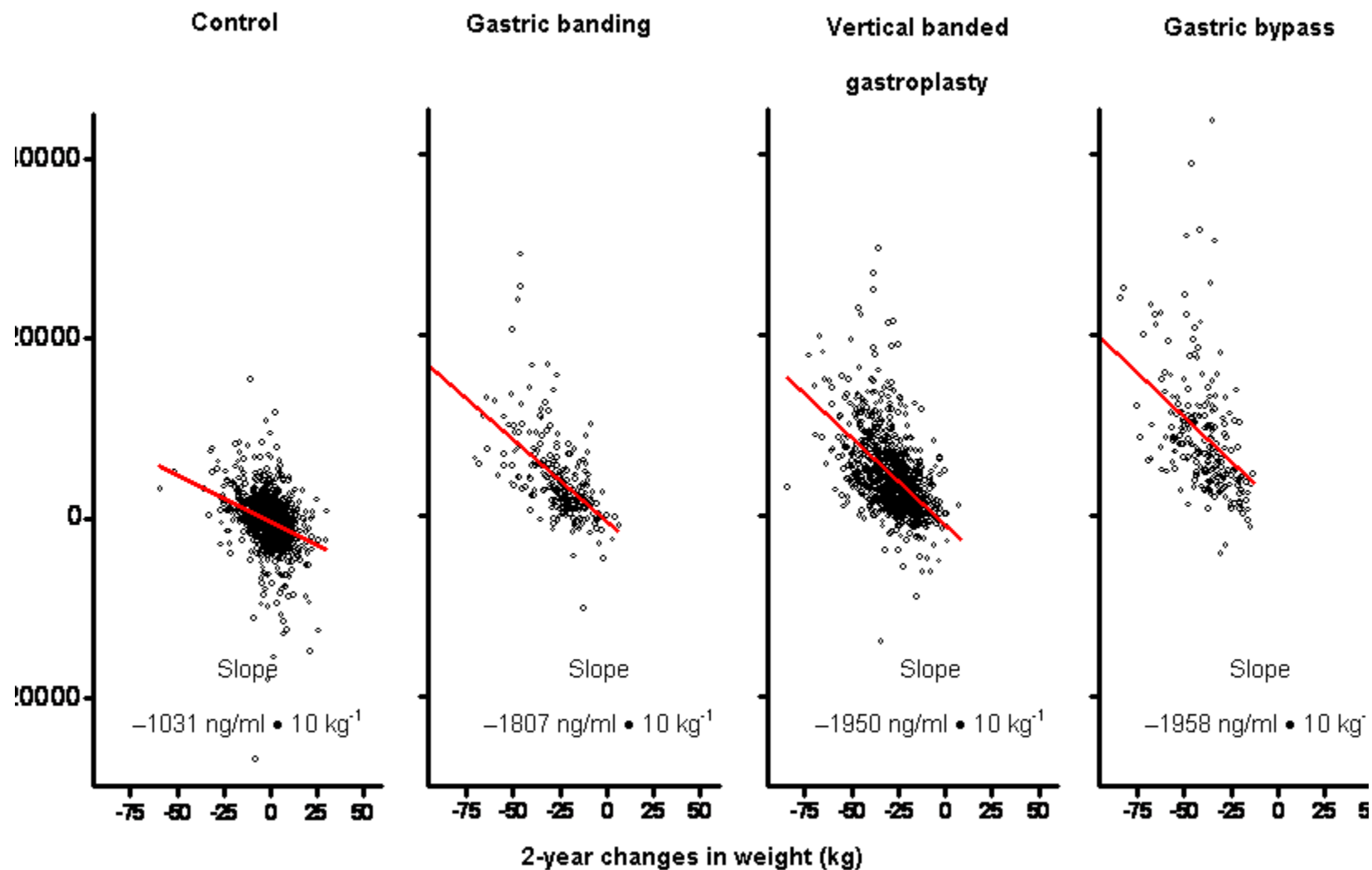
Supplementary Figure 3. Two-year changes in serum adiponectin by quintiles of weight change in the SOS study population (stratified by treatment group).



Data are given as mean changes with 95% CI for each quintile of weight change as indicated below the x-axis (analyses for men and women combined).

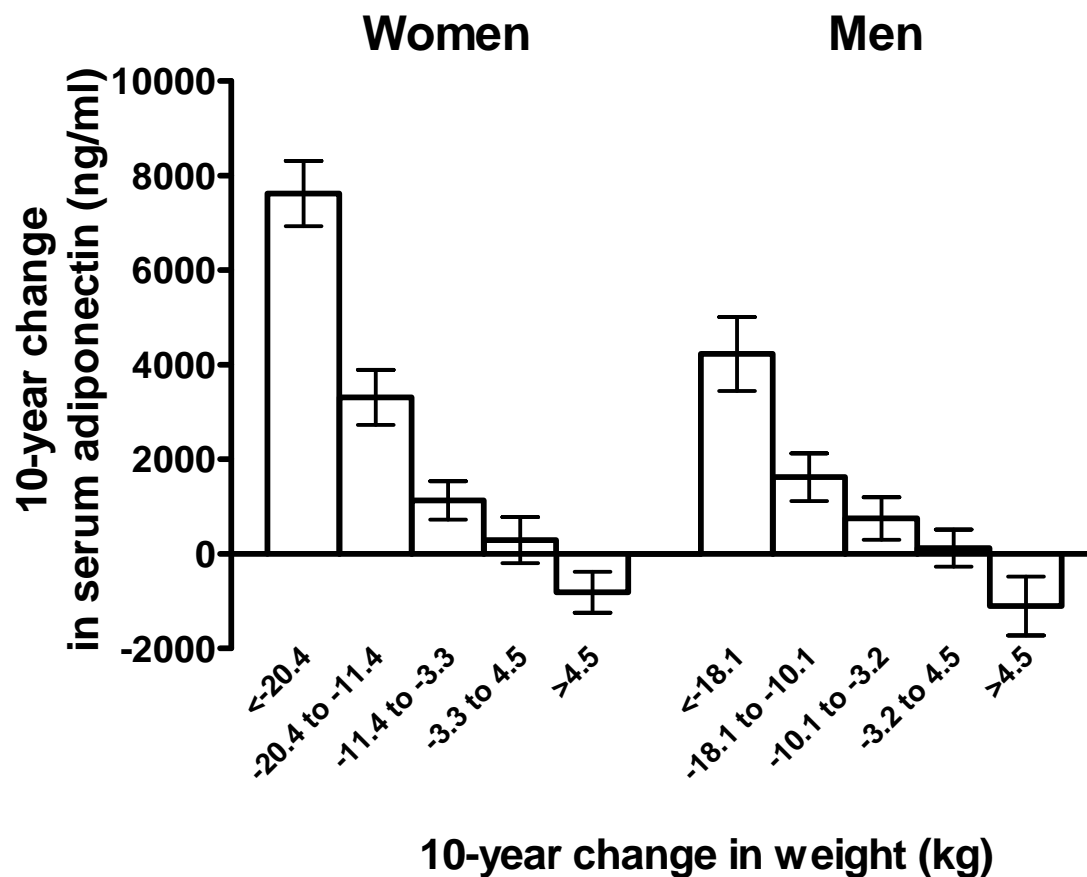
SUPPLEMENTARY DATA

Supplementary Figure 4. Correlation between 2-year changes in weight and serum adiponectin by treatment group.



SUPPLEMENTARY DATA

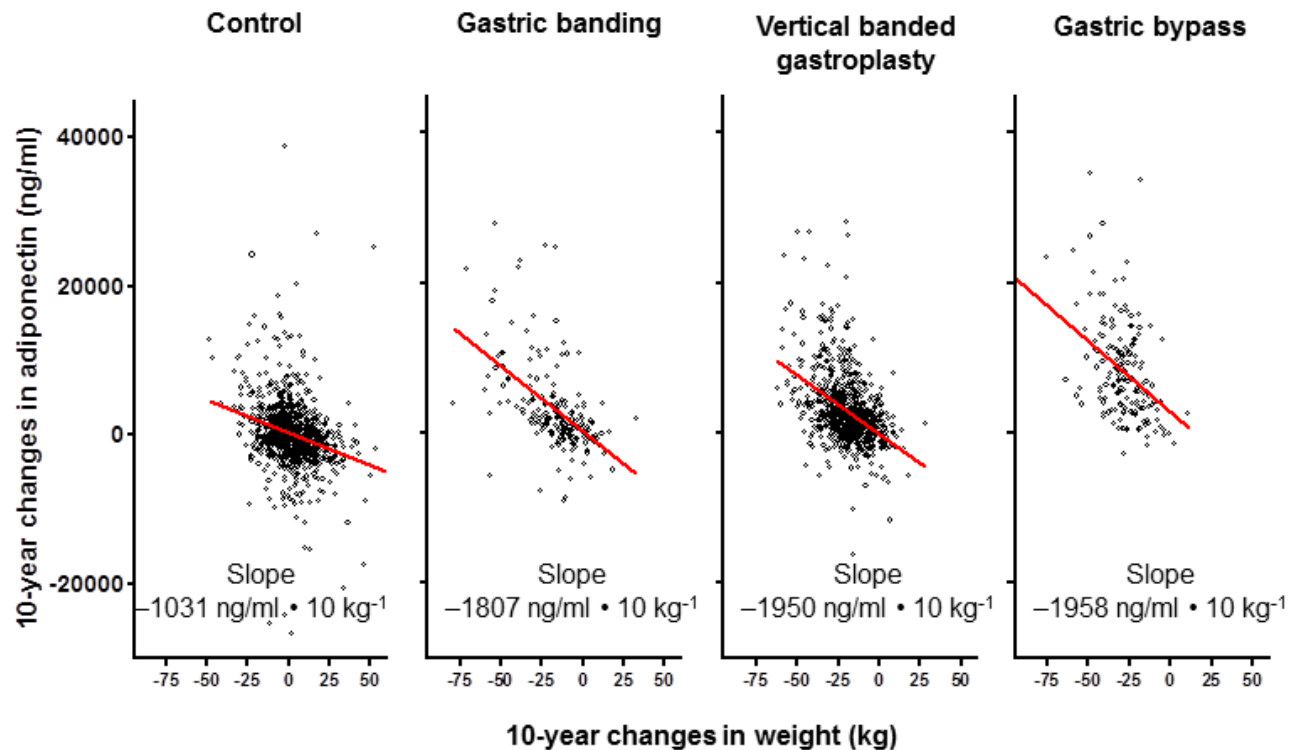
Supplementary Figure 5. Ten-year changes in serum adiponectin by quintiles of weight change in the SOS study population (stratified by sex).



Data are given as mean changes with 95% CI for each quintile of weight change as indicated below the x-axis (analyses for control and surgery groups combined). The analysis is based on the subgroup from Supplemental Figure S1, for whom 10-yr follow-up data were available (women: N = 1608, men: N = 704).

SUPPLEMENTARY DATA

Supplementary Figure 6. Correlation between 10-year changes in weight and serum adiponectin by treatment group.



The analysis is based on the subgroup from Supplemental Figure S2, for whom 10-yr follow-up data were available (control: N = 1125, gastric banding: N = 198, vertical banded gastroplasty: N = 817, gastric bypass: N = 172).