Supplementary Table 1.
Association between body composition markers and cognitive outcomes.
Multivariate regressions for cognitive domain scores by individual body composition markers, controlling for age and education. Partial correlation coefficients and p-values are provided.

COGNITIVE DOMAIN	N	BMI (kg/m^2)		Total Abdominal Fat (mm^2)		Visceral Abdominal Fat (mm^2)		Subcutaneous Abdominal Fat (mm^2)		Total Fat (g)		Muscle, Thigh (mm^2)	
		partial r	p	partial r	p	partial r	p	partial r	p	partial r	p	partial r	p
Executive Function	49	-0.15	0.300	-0.15	0.327	-0.16	0.270	-0.13	0.392	-0.21	0.149	-0.02	0.895
Processing Speed	49	-0.12	0.417	-0.06	0.708	-0.06	0.671	-0.05	0.744	-0.07	0.657	-0.12	0.406
Verbal Learning/Memory	48	-0.25	0.093	-0.28	0.055	**-0.33**	**0.024**	-0.25	0.099	-0.25	0.094	**-0.38**	**0.012**
Visual Memory	45	-0.11	0.467	-0.14	0.370	-0.15	0.325	-0.13	0.425	-0.14	0.357	-0.04	0.794
Visuospatial Skills	45	-0.03	0.837	-0.07	0.672	-0.17	0.289	-0.04	0.821	-0.05	0.760	0.20	0.207

Supplementary Table 2.
Association between hormones and cognitive outcomes.
Multivariate regressions for cognitive domain scores by individual hormone, controlling for age and education.
Partial correlation coefficients and p-values are provided.

	Executive Function		Processing Speed		Verbal Learning/ Memory		Visual Memory		Visuospatial Skills	
	partial r	p	partial r	p	partial r	p	partial r	p	partial r	p
Glucose Metabolism										
Insulin (AUC)	-0.22	0.149	-0.11	0.458	0.00	0.983	-0.02	0.917	-0.04	0.820
Glucose (AUC)	-0.07	0.626	-0.22	0.147	-0.14	0.338	-0.28	0.070	0.01	0.945
HOMA-IR	**-0.33**	**0.024**	-0.15	0.317	0.05	0.762	0.00	0.990	0.13	0.396
Adipokines										
Adiponectin (ug/ml)	0.26	0.187	0.13	0.526	0.01	0.950	0.14	0.492	-0.03	0.873
Leptin (ng/ml)	-0.35	0.057	-0.12	0.545	0.07	0.733	-0.04	0.842	-0.03	0.863
IGF-1 Pathway										
IGF-1 (ng/ml)	-0.10	0.520	-0.15	0.321	-0.03	0.833	-0.19	0.230	0.03	0.848
Gonadal Hormones										
Free Estradiol (pg/ml)	0.14	0.365	0.17	0.286	0.07	0.656	-0.07	0.680	-0.21	0.197
Estradiol (pg/dl)	0.19	0.210	0.15	0.335	0.12	0.452	-0.10	0.532	-0.22	0.174
Free Testosterone (ng/dl)	0.03	0.859	-0.19	0.224	0.05	0.776	0.07	0.670	0.09	0.579
Testosterone (ng/dl)	0.21	0.174	-0.08	0.598	0.05	0.758	0.07	0.648	0.02	0.891
Vitamin D										
Vitamin D (ng/ml)	-0.04	0.787	-0.06	0.673	0.02	0.875	-0.19	0.224	-0.08	0.595

N.B. For all hormones, N=45-49, except for the adipokines (N=30 for adiponectin and N=32 for leptin)

Supplementary Table 3.
Nonparametric correlations between body composition measures and hormone levels (N=49).
Spearman's Rho is provided. For all bolded values, p<0.05.

	BMI (kg/m^2)	SAT (mm^2)	VAT (mm^2)	TAT (mm^2)	FAT (g)	Muscle (mm^2)
Body Composition						
BMI	X	**0.89**	**0.67**	**0.91**	**0.93**	**0.63**
SAT	**0.89**	X	**0.65**	**0.97**	**0.94**	**0.56**
VAT	**0.69**	**0.65**	X	**0.79**	**0.75**	**0.40**
TAT	**0.91**	**0.97**	**0.79**	X	**0.96**	**0.56**
FAT	**0.93**	**0.94**	**0.75**	**0.96**	X	**0.59**
Muscle	**0.63**	**0.54**	**0.40**	**0.56**	**0.59**	X
Glucose Metabolism						
Insulin (AUC)	**0.55**	**0.40**	**0.52**	**0.47**	**0.52**	**0.52**
Glucose (AUC)	**0.58**	**0.46**	**0.58**	**0.53**	**0.54**	**0.37**
HOMA-IR	**0.54**	**0.52**	**0.55**	**0.57**	**0.57**	**0.42**
Adipokines						
Adiponectin (ug/ml)	-0.20	-0.24	**-0.45**	-0.31	-0.34	-0.25
Leptin (ng/ml)	**0.81**	**0.87**	**0.74**	**0.90**	**0.90**	**0.39**
IGF-1 Pathway						
IGF-1 (ng/ml)	-0.27	-0.22	**-0.40**	**-0.29**	-0.23	0.16
Gonadal Hormones						
Free Estradiol (pg/ml)	0.02	0.06	0.08	0.05	0.08	-0.03
Estradiol (pg/dl)	-0.10	-0.01	-0.03	-0.04	-0.03	-0.19
Free Testosterone (ng/dl)	0.17	0.17	0.15	0.16	0.15	0.25
Testosterone (ng/dl)	0.03	0.09	0.00	0.06	0.03	-0.11

Vitamin D										
Vitamin D (ng/ml)	**-0.32**	-0.23	-0.20	-0.25	-0.27	**-0.37**				

	Insulin	Glucose	HOMA-IR	Adipo nectin	Leptin	IGF-1	Free E2	E2	Free T	T	Vitamin D
Glucose Metabolism											
Insulin (AUC)	x	**0.54**	**0.70**	**-0.49**	**0.42**	-0.05	-0.07	-0.29	0.26	-0.08	-0.18
Glucose (AUC)	**0.54**	x	**0.58**	-0.33	**0.47**	-0.23	0.16	-0.16	0.26	.10	0.16
HOMA-IR	**0.70**	**0.58**	x	**-0.52**	**0.68**	-0.08	-0.17	**-0.31**	**0.34**	0.13	-0.14
Adipokines											
Adiponectin (ug/ml)	**-0.49**	-0.33	**-0.52**	x	**-0.39**	-0.01	0.12	0.28	-0.02	0.30	0.01
Leptin (ng/ml)	**0.42**	**0.47**	**0.68**	**-0.39**	x	-0.21	0.20	0.12	**0.37**	0.21	-0.20
IGF-1 Pathway											
IGF-1 (ng/ml)	-0.05	-0.23	-0.08	-0.01	-0.21	x	0.15	0.14	0.04	-0.12	0.14
Gonadal Hormones											
Free Estradiol (pg/ml)	-0.07	0.16	-0.17	0.12	0.20	0.15	x	**0.95**	0.13	0.23	0.13
Estradiol (pg/dl)	-0.29	-0.16	**-0.31**	0.28	0.12	0.14	**0.95**	x	0.02	0.27	0.20
Free Testosterone (ng/dl)	0.26	0.26	**0.34**	-0.02	**0.37**	0.04	0.13	0.02	x	**0.75**	0.21
Testosterone (ng/dl)	-0.08	0.10	0.13	0.30	0.21	-0.12	0.23	0.27	**0.75**	x	-.06
Vitamin D											
Vitamin D (ng/ml)	-0.18	0.16	-0.14	0.01	-0.20	0.14	0.13	0.20	-0.21	-0.06	x

N.B. For all hormones, N=45-49, except for the adipokines (N=30 for adiponectin and N=32 for leptin)