Supplemental Materials

Accumulation in visceral adipose tissue over six years is associated with lower paraspinal muscle density

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Supplemental Table 1. Characteristics for all women participants stratified by menopausal status

	Pre-menopausal Women (N=357)	**Post-menopausal Women (N=153)**
Age (years) at baseline, mean(SD)	44.5(4.2)	52.5(5.5)
BMI at baseline, mean(SD)	26.3(5.9)	27.4(5.5)
Obesity (BMI≥30) at baseline, N (%)	94(26)	59(39)
Height (cm), at baseline	164.5(6.3)	163.5(6.7)
Physical Activity Index at baseline, mean(SD)	36.2(5.8)	36.8(7.4)
Weight (kg) at baseline, mean(SD)	71.2(16.3)	73.6(16.4)
Diabetes status at baseline, N (%)	5(1)	6(4)
Estrogenic at baseline, N (%)	357(100)	54(35)
Estrogen Replacement Therapy at baseline, N (%)	2(1)	54(35)
Underwent menopausal transition, N (%)	178(50)	NA
Adiponectin (ng/mL)) at baseline, mean(SD)*	11.4(5.8)	11.6(5.9)
Interleukin-6 (pg/mL) at baseline, mean (SD)*	1.8(1.8)	2.7(8.3)
VAT (cm^3) at baseline, mean(SD)	1060.5(688.5)	1385.1(781.5)
VAT (cm^3) at follow-up, mean(SD)	1434.7(1006.2)	1787.9(1092.1)
Difference in VAT (cm^3): follow-up - baseline, mean(SD)	373.8(543.4)	402.7(537.3)
Paraspinal muscle density (HU) at baseline, mean(SD)	38.2(9.3)	33.3(9.4)
Paraspinal muscle density (HU) at follow-up, mean(SD)	40.9(9.7)	35.8(9.6)
Difference in paraspinal muscle density(HU), mean(SD)	2.6(7.0)	2.5(6.5)

* Measured approximately six years before initial VAT measurement

Supplemental Table 2. Association results with paraspinal muscle density in women stratified by menopausal status for Model 3.

	Premenopausal Women				Post-menopausal Women			
	Beta	**SE**	**95% CI**	**p-value**	**Beta**	**SE**	**95% CI**	**p-value**
VAT difference, scaled by 100 cm^3	-0.515	0.073	-0.658,-0.371	<0.001	-0.348	0.120	-0.585,-0.111	0.004
VAT at baseline, scaled by 100 cm^3	-0.653	0.058	-0.768, -0.539	<0.001	-0.651	0.088	-0.825, -0.477	<0.001
Age at baseline, y	-0.467	0.090	-0.644, -0.289	<0.001	-0.375	0.114	-0.600, -0.151	0.001
Height at baseline, cm	0.052	0.061	-0.067, 0.171	0.392	-0.007	0.093	-0.192, 0.177	0.939
Diabetes status at baseline	-6.814	3.211	-13.129, -0.499	0.035	-0.068	3.223	-6.438, 6.303	0.983
Physical Activity Index at baseline	0.016	0.066	-0.112, 0.145	0.801	-0.032	0.081	-0.193, 0.129	0.696
Estrogenic status at baseline					-0.571	1.242	-3.026, 1.883	0.646

Supplemental Table 3. Association results with paraspinal muscle density in all sample stratified by sex under various covariate adjustments

	Men				Women			
	Beta	**SE**	**95% CI**	**p-value**	**Beta**	**SE**	**95% CI**	**p-value**
Model 0: no adjustment								
VAT difference, scaled by 100 cm^3	-0.423	0.04	-0.502,-0.345	<0.001	-0.802	0.073	-0.946,-0.658	<0.001
Model 1: adjusting for baseline VAT, age, and height								
VAT difference, scaled by 100 cm^3	-0.302	0.04	-0.380,-0.225	<0.001	-0.476	0.062	-0.598,-0.355	<0.001
VAT at baseline, scaled by 100 cm^3	-0.218	0.039	-0.294,-0.141	<0.001	-0.652	0.047	-0.744,-0.560	<0.001
Age at baseline, yr	-0.357	0.049	-0.453,-0.261	<0.001	-0.415	0.062	-0.537,-0.293	<0.001
Height at baseline, cm	-0.024	0.045	-0.113,0.064	0.589	0.031	0.05	-0.067,0.128	0.54
Estrogenic status at baseline					-0.567	0.904	-2.343,1.209	0.531
Model 2: adjusting for baseline VAT, age, height, and diabetes status								
VAT difference, scaled by 100 cm^3	-0.302	0.04	-0.379,-0.224	<0.001	-0.478	0.062	-0.600,-0.357	<0.001
VAT at baseline, scaled by 100 cm^3	-0.217	0.039	-0.293,-0.141	<0.001	-0.639	0.048	-0.732,-0.545	<0.001
Age at baseline, yr	-0.353	0.049	-0.449,-0.256	<0.001	-0.413	0.062	-0.535,-0.291	<0.001
Height at baseline, cm	-0.023	0.045	-0.111,0.065	0.609	0.029	0.05	-0.069,0.127	0.558
Diabetes status at baseline	-2.055	1.955	-5.895,1.785	0.294	-3.436	2.214	-7.787,0.914	0.121
Estrogenic status at baseline					-0.638	0.904	-2.413,1.138	0.481
Model 3: adjusting for baseline VAT, age, height, diabetes status, and physical activity (i.e. Table 2)								
VAT difference, scaled by 100 cm^3	-0.302	0.040	-0.380,-0.224	<0.001	-0.476	0.062	-0.598,-0.354	<0.001
VAT at baseline, scaled by 100 cm^3	-0.222	0.039	-0.298, -0.146	<0.001	-0.644	0.048	-0.739, -0.550	<0.001
Age at baseline, yr	-0.356	0.049	-0.452, -0.259	<0.001	-0.420	0.062	-0.543, -0.298	<0.001
Height at baseline, cm	-0.021	0.045	-0.110, 0.067	0.632	0.028	0.050	-0.071, 0.127	0.58
Diabetes status at baseline	-2.003	1.952	-5.836, 1.830	0.305	-3.307	2.215	-7.659, 1.046	0.136
Physical Activity Index at baseline	-0.075	0.033	-0.141, -0.010	0.024	0.004	0.051	-0.096, 0.103	0.945
Estrogenic Status at baseline					-0.583	0.911	-2.372, 1.206	0.522
Model 4: adjusting for baseline VAT, age, height, diabetes status, physical activity, and adiponectin								

VAT difference, scaled by 100 cm^3	-0.288	0.039	-0.364,-0.211	<0.001	-0.475	0.062	-0.596,-0.354	<0.001
VAT at baseline, scaled by 100 cm^3	-0.288	0.04	-0.367,-0.209	<0.001	-0.711	0.051	-0.812,-0.610	<0.001
Age at baseline, yr	-0.313	0.049	-0.409,-0.217	<0.001	-0.385	0.062	-0.507,-0.263	<0.001
Height at baseline, cm	0.001	0.044	-0.086,0.088	0.99	0.054	0.05	-0.044,0.153	0.28
Diabetes status at baseline	-2.253	1.915	-6.015,1.508	0.24	-3.492	2.184	-7.783,0.799	0.111
Physical Activity Index at baseline	-0.061	0.033	-0.125,0.003	0.063	-0.002	0.05	-0.100,0.096	0.967
Adiponectin at baseline, µg/mL	-0.395	0.078	-0.547,-0.242	<0.001	-0.206	0.059	-0.322,-0.090	<0.001
Estrogenic status at baseline					-0.415	0.903	-2.189,1.359	0.646
Model 5: adjusting for baseline VAT, age, height, diabetes status, physical activity, and IL-6								
VAT difference, scaled by 100cm3	-0.318	0.04	-0.396,-0.239	<0.001	-0.481	0.063	-0.605,-0.358	<0.001
VAT at baseline, scaled by 100 cm3	-0.210	0.04	-0.288,-0.133	<0.001	-0.635	0.049	-0.731,-0.540	<0.001
Age at baseline, yr	-0.358	0.049	-0.454,-0.263	<0.001	-0.425	0.063	-0.549,-0.302	<0.001
Height at baseline, cm	-0.017	0.044	-0.104,0.070	0.703	0.024	0.051	-0.076,0.124	0.635
Diabetes Status at baseline	-3.250	1.993	-7.164,0.665	0.104	-3.427	2.224	-7.796,0.943	0.124
Physical Activity Index at baseline	-0.068	0.033	-0.133,-0.003	0.04	0.006	0.051	-0.094,0.106	0.911
Interleukin-6 at baseline, pg/mL	-0.067	0.146	-0.355,0.220	0.645	-0.069	0.067	-0.199,0.062	0.304
Estrogenic status at baseline					-0.795	0.924	-2.610,1.021	0.39
Model 6: adjusting for baseline VAT, age, height, diabetes status, physical activity, adiponectin, and IL-6								
VAT difference, scaled by 100 cm^3	-0.303	0.039	-0.380,-0.006	<0.001	-0.473	0.062	-0.595,-0.351	<0.001
VAT at baseline, scaled by 100 cm^3	-0.275	0.041	-0.355,-0.195	<0.001	-0.707	0.052	-0.809,-0.605	<0.001
Age at baseline, yr	-0.318	0.048	-0.413,-0.223	<0.001	-0.387	0.063	-0.510,-0.264	<0.001
Height at baseline, cm	0.006	0.044	-0.080,0.092	0.896	0.052	0.051	-0.047,0.152	0.303
Diabetes status at baseline	-3.430	1.954	-7.267,0.408	0.08	-3.550	2.19	-7.854,0.754	0.106
Physical Activity Index at baseline	-0.054	0.032	-0.118,0.009	0.095	-0.002	0.05	-0.100,0.097	0.975
Adiponectin at baseline, µg/mL*	-0.394	0.077	-0.545,-0.243	<0.001	-0.205	0.059	-0.321,-0.088	<0.001
Interleukin-6 at baseline, pg/mL*	-0.070	0.143	-0.351,0.212	0.626	-0.069	0.066	-0.198,0.060	0.295
Estrogenic status at baseline					-0.535	0.912	-2.327,1.257	0.558

* Measured approximately six years before initial VAT measurement

Supplemental Table 4. Association results with paraspinal muscle density in women sample stratified by menopause status under various covariate adjustments

	Premenopausal Women				Post-menopausal Women			
	Beta	**SE**	**95% CI**	**p-value**	**Beta**	**SE**	**95% CI**	**p-value**
Model 0: no adjustment								
VAT difference, scaled by 100 cm^3	-0.828	0.084	-0.994,-0.663	<0.001	-0.706	0.133	-0.969,-0.444	<0.001
Model 1: adjusting for baseline VAT, age, and height								
VAT difference, scaled by 100 cm^3	-0.526	0.073	-0.670,-0.383	<0.001	-0.354	0.117	-0.586,-0.123	0.003
VAT at baseline, scaled by 100 cm^3	-0.665	0.058	-0.779,-0.551	<0.001	-0.629	0.081	-0.790,-0.469	<0.001
Age at baseline, yr	-0.468	0.09	-0.645,-0.291	<0.001	-0.376	0.113	-0.599,-0.153	0.001
Height at baseline, cm	0.058	0.06	-0.060,0.175	0.333	-0.020	0.093	-0.204,0.164	0.83
Estrogenic Status at baseline					-0.414	1.227	-2.840,2.011	0.736
Model 2: adjusting for baseline VAT, age, height, and diabetes status								
VAT difference, scaled by 100 cm^3	-0.517	0.073	-0.660,-0.374	<0.001	-0.357	0.119	-0.592,-0.123	0.003
VAT at baseline, scaled by 100 cm^3	-0.655	0.058	-0.769,-0.541	<0.001	-0.624	0.087	-0.795,-0.453	<0.001
Age at baseline, yr	-0.467	0.089	-0.643,-2.92	<0.001	-0.375	0.113	-0.599,-0.151	0.001
Height at baseline, cm	0.058	0.059	-0.059,0.175	0.328	-0.021	0.093	-0.206,0.164	0.823
Diabetes Status at baseline	-6.855	3.188	-13.126,-0.585	0.032	-0.526	3.232	-6.913,5.862	0.871
Estrogenic Status at baseline					-0.427	1.234	-2.866,2.011	0.73
Model 3: adjusting for baseline VAT, age, height, diabetes status, and physical activity (i.e. Supplemental Table 2)								
VAT difference, scaled by 100 cm^3	-0.515	0.073	-0.658,-0.371	<0.001	-0.348	0.120	-0.585,-0.111	0.004
VAT at baseline, scaled by 100 cm^3	-0.653	0.058	-0.768,-0.539	<0.001	-0.651	0.088	-0.825,-0.477	<0.001
Age at baseline, yr	-0.467	0.09	-0.644,-0.289	<0.001	-0.375	0.114	-0.600,-0.151	0.001
Height at baseline, cm	0.052	0.061	-0.067,0.171	0.392	-0.007	0.093	-0.192,0.177	0.939
Diabetes status at baseline	-6.814	3.211	-13.129,-0.499	0.035	-0.068	3.223	-6.438,6.303	0.983
Physical Activity Index at baseline	0.016	0.066	-0.112,0.145	0.801	-0.032	0.081	-0.193,0.129	0.696

Estrogenic status at baseline					-0.571	1.242	-3.026,1.883	0.646
Model 4: adjusting for baseline VAT, age, height, diabetes status, physical activity, and adiponectin								
VAT Difference, scaled by 100 cm^3	-0.510	0.072	-0.651,-0.369	<0.001	-0.358	0.125	-0.604,-0.112	0.005
VAT at baseline, scaled by 100 cm^3	-0.739	0.062	-0.860,-0.618	<0.001	-0.677	0.101	-0.877,-0.478	<0.001
Age at baseline, yr	-0.399	0.09	-0.576,-0.222	<0.001	-0.391	0.115	-0.618,-0.165	<0.001
Height at baseline, cm	0.081	0.06	-0.037,0.198	0.179	-0.001	0.095	-0.189,0.186	0.989
Diabetes Status at baseline	-7.220	3.143	-13.402,-1.037	0.022	-0.142	3.244	-6.554,6.271	0.965
Physical Activity Index at baseline	0.003	0.064	-0.123,0.130	0.957	-0.028	0.082	-0.190,0.133	0.728
Adiponectin at baseline, µg/mL	-0.248	0.069	-0.385,-0.112	<0.001	-0.102	0.12	-0.339,0.134	0.393
Estrogenic status at baseline					-0.366	1.277	-2.890,2.158	0.775
Model 5: adjusting for baseline VAT, age, height, diabetes status, physical activity, and IL-6								
VAT Difference, scaled by 100 cm^3	-0.512	0.074	-0.658,-0.366	<0.001	-0.369	0.123	-0.613,-0.125	0.003
VAT at baseline, scaled by 100 cm^3	-0.648	0.061	-0.768,-0.527	<0.001	-0.639	0.089	-0.816,-0.462	<0.001
Age at baseline, yr	-0.467	0.092	-0.647,-0.286	<0.001	-0.388	0.114	-0.615,-0.162	<0.001
Height at baseline, cm	0.049	0.062	-0.073,0.170	0.432	-0.012	0.094	-0.197,0.173	0.898
Diabetes status at baseline	-6.820	3.232	-13.178,-0.462	0.036	-0.315	3.239	-6.717,6.088	0.923
Physical Activity Index at baseline	0.017	0.066	-0.113,0.148	0.793	-0.028	0.082	-0.189,0.134	0.734
Interleukin-6 at baseline, pg/mL	-0.059	0.225	-0.501,0.384	0.794	-0.064	0.071	-0.205,0.077	0.37
Estrogenic status at baseline					-0.716	1.25	-3.187,1.756	0.568
Model 6: adjusting for baseline VAT, age, height, diabetes status, Physical activity, Adiponectin, and IL-6								
VAT difference, scaled by 100 cm^3	-0.509	0.073	-0.652,-0.366	<0.001	-0.354	0.125	-0.601,-0.108	0.005
VAT at baseline, scaled by 100 cm^3	-0.737	0.065	-0.864,-0.610	<0.001	-0.681	0.101	-0.881,-0.481	<0.001
Age at baseline, yr	-0.399	0.091	-0.578,-0.220	<0.001	-0.396	0.115	-0.623,-0.169	<0.001
Height at baseline, cm	0.079	0.061	-0.041,0.199	0.196	0.001	0.095	-0.187,0.188	0.995
Diabetes Status at baseline	-7.221	3.161	-13.438,-1.004	0.023	-0.166	3.245	-6.581,6.250	0.959
Physical Activity Index at baseline	0.004	0.065	-0.124,0.131	0.954	-0.029	0.082	-0.191,0.133	0.723
Adiponectin at baseline, µg/mL	-0.247	0.07	-0.385,-0.110	<0.001	-0.108	0.12	-0.345,0.129	0.369
Interleukin-6 at baseline, pg/mL	-0.010	0.22	-0.443,0.423	0.963	-0.067	0.071	-0.208,0.074	0.348
Estrogenic Status at baseline					-0.465	1.282	-2.999,2.069	0.717

Supplemental Table 5. Association results with paraspinal muscle density change in all sample stratified by sex under various covariate adjustments

	Med				Women			
	Beta	**SE**	**95% CI**	**p-value**	**Beta**	**SE**	**95% CI**	**p-value**
Model 0: no adjustment								
VAT Difference, scaled by 100cm3	-0.062	0.033	-0.127,0.004	0.066	-0.262	0.055	-0.370,-0.154	<0.001
Model 1: adjusting for baseline VAT, age, and height								
VAT difference, scaled by 100 cm^3	-0.039	0.036	-0.109,0.032	0.279	-0.202	0.057	-0.315,-0.090	<0.001
VAT at baseline, scaled by 100 cm^3	-0.070	0.035	-0.139,-0.002	0.045	-0.148	0.043	-0.234,-0.063	<0.001
Age at baseline, yr	0.03	0.044	-0.057,0.117	0.5	0.003	0.058	-0.110,0.116	0.961
Height at baseline, cm	0.008	0.041	-0.072,0.087	0.85	0.11	0.046	0.019,0.201	0.018
Estrogenic status at baseline					0.97	0.839	-0.679,2.618	0.248
Model 2: adjusting for baseline VAT, age, height, and diabetes status								
VAT difference, scaled by 100 cm^3	-0.039	0.036	-0.109,0.032	0.279	-0.202	0.057	-0.315,-0.089	<0.001
VAT at baseline, scaled by 100 cm3	-0.071	0.035	-0.140,-0.002	0.045	-0.149	0.044	-0.236,-0.062	<0.001
Age at baseline, yr	0.029	0.044	-0.058,0.117	0.508	0.003	0.058	-0.111,0.116	0.962
Height at baseline, cm	0.008	0.041	-0.072,0.087	0.853	0.11	0.046	0.019,0.201	0.018
Diabetes status at baseline	0.19	1.767	-3.281,3.661	0.914	0.119	2.06	-3.929,4.167	0.954
Estrogenic status at baseline					0.972	0.841	-0.680,2.624	0.248
Model 3: adjusting for baseline VAT, age, height, diabetes status, and physical activity								
VAT difference, scaled by 100 cm^3	-0.040	0.036	-0.110,0.031	0.267	-0.198	0.058	-0.312,-0.084	<0.001
VAT at baseline, scaled by 100 cm^3	-0.073	0.035	-0.142,-0.004	0.039	-0.154	0.045	-0.242,-0.066	<0.001
Age at baseline, yr	0.028	0.044	-0.059,0.115	0.531	0	0.058	-0.114,0.115	0.994
Height at baseline, cm	0.008	0.041	-0.072,0.088	0.838	0.111	0.047	0.019,0.204	0.019
Diabetes status at baseline	0.205	1.767	-3.265,3.675	0.908	0.175	2.069	-3.889,4.239	0.933
Physical Activity Index at baseline	-0.038	0.03	-0.097,0.021	0.205	-0.005	0.047	-0.098,0.088	0.919
Estrogenic status at baseline					0.949	0.850	-0.722,2.62	0.265
Model 4: adjusting for baseline VAT, age, height, diabetes status, physical activity, and adiponectin								

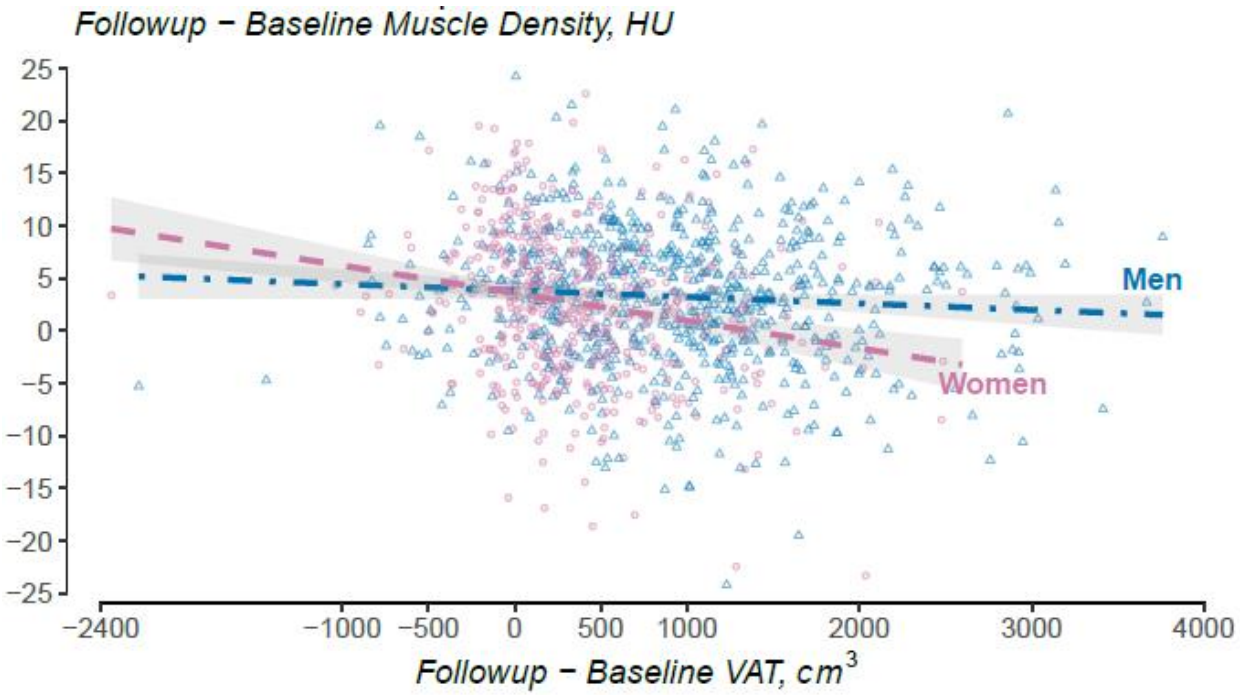
VAT difference, scaled by 100 cm^3	-0.041	0.036	-0.112,0.03	0.253	-0.203	0.058	-0.318,-0.088	<0.001
VAT at baseline, scaled by 100 cm^3	-0.066	0.037	-0.140,0.007	0.074	-0.171	0.049	-0.267,-0.075	<0.001
Age at baseline, yr	0.024	0.045	-0.065,0.112	0.6	0.014	0.059	-0.102,0.129	0.818
Height at baseline, cm	0.006	0.041	-0.074,0.087	0.877	0.121	0.047	0.028,0.214	0.011
Diabetes status at baseline	0.229	1.77	-3.247,3.705	0.897	0.078	2.066	-3.982,4.138	0.97
Physical Activity Index at baseline	-0.040	0.03	-0.099,0.02	0.192	-0.009	0.047	-0.102,0.084	0.851
Adiponectin at baseline, µg/mL	0.037	0.072	-0.105,0.178	0.61	-0.060	0.056	-0.170,0.049	0.28
Estrogenic status at baseline					0.986	0.854	-0.693,2.664	0.249
Model 5: adjusting for baseline VAT, age, height, diabetes status, physical activity, and IL-6								
VAT difference, scaled by 100cm3	-0.045	0.037	-0.118,0.027	0.217	-0.207	0.059	-0.323,-0.092	<0.001
VAT at baseline, scaled by 100 cm3	-0.064	0.036	-0.136,0.007	0.078	-0.147	0.045	-0.236,-0.058	0.001
Age at baseline, yr	0.026	0.045	-0.062,0.114	0.559	0.005	0.059	-0.110,0.12	0.933
Height at baseline, cm	0.01	0.041	-0.071,0.09	0.813	0.113	0.047	0.019,0.206	0.018
Diabetes status at baseline	-0.363	1.834	-3.964,3.238	0.843	0.125	2.07	-3.943,4.192	0.952
Physical Activity Index at baseline	-0.036	0.03	-0.095,0.024	0.239	-0.003	0.047	-0.096,0.091	0.957
Interleukin-6 at baseline, pg/mL	-0.040	0.135	-0.304,0.224	0.767	0.032	0.062	-0.090,0.154	0.606
Estrogenic status at baseline					0.958	0.86	-0.732,2.648	0.266
Model 6: adjusting for baseline VAT, age, height, diabetes status, physical activity, adiponectin, and IL-6								
VAT difference, scaled by 100 cm^3	-0.047	0.037	-0.119,0.026	0.204	-0.207	0.059	-0.323,-0.092	<0.001
VAT at baseline, scaled by 100 cm^3	-0.058	0.038	-0.133,0.018	0.133	-0.170	0.049	-0.265,-0.074	<0.001
Age at baseline, yr	0.022	0.045	-0.067,0.112	0.626	0.019	0.059	-0.097,0.136	0.743
Height at baseline, cm	0.007	0.041	-0.074,0.088	0.858	0.125	0.048	0.031,0.218	0.009
Diabetes status at baseline	-0.345	1.835	-3.949,3.259	0.851	0.085	2.066	-3.976,4.145	0.967
Physical Activity Index at baseline	-0.037	0.03	-0.097,0.023	0.223	-0.007	0.047	-0.100,0.086	0.883
Adiponectin at baseline, µg/mL*	0.04	0.072	-0.102,0.182	0.578	-0.061	0.056	-0.171,0.048	0.273
Interleukin-6 at baseline, pg/mL*	-0.040	0.135	-0.304,0.225	0.769	0.032	0.062	-0.089,0.154	0.602
Estrogenic status at baseline					1.064	0.86	-0.627,2.754	0.217

* Measured approximately six years before initial VAT measurement

Supplemental Table 6. Association results with paraspinal muscle density change in women sample stratified by menopause status under various covariate adjustments

	Premenopausal Women				Post-menopausal Women			
	Beta	**SE**	**95% CI**	**p-value**	**Beta**	**SE**	**95% CI**	**p-value**
Model 0: no adjustment								
VAT Difference, scaled by 100cm3	-0.315	0.066	-0.445,-0.184	<0.001	-0.136	0.098	-0.329,0.057	0.166
Model 1: adjusting for baselin VAT, age, and height								
VAT Difference, scaled by 100cm3	-0.237	0.069	-0.373,-0.102	<0.001	-0.095	0.1	-0.293,0.103	0.345
VAT at baseline, scaled by 100 cm3	-0.177	0.055	-0.284,-0.069	0.001	-0.133	0.069	-0.271,0.004	0.057
Age at baseline, yr	-0.136	0.085	-0.303,0.031	0.111	0.024	0.097	-0.167,0.214	0.807
Height at baseline, cm	0.07	0.056	-0.040,0.181	0.212	0.197	0.08	0.040,0.355	0.014
Estrogenic Status at baseline					3.061	1.051	0.985,5.137	0.004
Model 2: adjusting for baselin VAT, age, height, and diabetes status								
VAT Difference, scaled by 100cm3	-0.239	0.069	-0.375,-0.103	<0.001	-0.100	0.102	-0.301,0.1	0.324
VAT at baseline, scaled by 100 cm3	-0.179	0.055	-0.287,-0.071	0.001	-0.124	0.074	-0.270,0.022	0.096
Age at baseline, yr	-0.136	0.085	-0.303,0.031	0.111	0.026	0.097	-0.166,0.217	0.793
Height at baseline, cm	0.07	0.056	-0.041,0.181	0.213	0.196	0.08	0.038,0.354	0.016
Diabetes Status at baseline	1.546	3.031	-4.415,7.507	0.61	-1.028	2.765	-6.494,4.437	0.711
Estrogenic Status at baseline					3.036	1.056	0.950,5.123	0.005
Model 3: adjusting for baselin VAT, age, height, diabetes status, and Physical activity								
VAT Difference, scaled by 100cm3	-0.238	0.070	-0.375,-0.101	<0.001	-0.086	0.104	-0.291,0.119	0.408
VAT at baseline, scaled by 100 cm3	-0.180	0.056	-0.290,-0.071	0.001	-0.137	0.076	-0.288,0.013	0.073
Age at baseline, yr	-0.139	0.086	-0.308,0.03	0.107	0.033	0.098	-0.161,0.227	0.738
Height at baseline, cm	0.067	0.058	-0.046,0.181	0.245	0.204	0.081	0.044,0.363	0.013
Diabetes Status at baseline	1.477	3.055	-4.530,7.485	0.629	-0.823	2.786	-6.330,4.685	0.768
Physical Activity Index at baseline	-0.016	0.062	-0.138,0.107	0.804	-0.004	0.070	-0.143,0.135	0.957
Estrogenic Status at baseline					2.894	1.073	0.773,5.016	0.008
Model 4: adjusting for baseline VAT, age, height, diabetes status, Physical activity, and Adiponectin								

VAT Difference, scaled by 100cm3	-0.238	0.07	-0.375,-0.101	<0.001	-0.103	0.108	-0.316,0.111	0.343
VAT at baseline, scaled by 100 cm3	-0.214	0.06	-0.332,-0.097	<0.001	-0.128	0.088	-0.301,0.045	0.146
Age at baseline, yr	-0.106	0.087	-0.277,0.066	0.227	0.027	0.099	-0.170,0.223	0.79
Height at baseline, cm	0.08	0.058	-0.034,0.194	0.168	0.199	0.082	0.037,0.362	0.017
Diabetes Status at baseline	1.293	3.047	-4.700,7.285	0.672	-0.977	2.814	-6.539,4.586	0.729
Physical Activity Index at baseline	-0.024	0.062	-0.147,0.098	0.697	-0.001	0.071	-0.141,0.14	0.993
Adiponectin at baseline, µg/mL	-0.103	0.067	-0.236,0.029	0.125	0	0.104	-0.205,0.205	>0.999
Estrogenic Status at baseline					2.868	1.107	0.678,5.057	0.011
Model 5: adjusting for baseline VAT, age, height, diabetes status, Physical activity, and IL-6								
VAT Difference, scaled by 100cm3	-0.243	0.07	-0.381,-0.105	<0.001	-0.104	0.107	-0.316,0.107	0.332
VAT at baseline, scaled by 100 cm3	-0.176	0.058	-0.290,-0.062	0.003	-0.127	0.078	-0.280,0.026	0.104
Age at baseline, yr	-0.130	0.087	-0.300,0.041	0.135	0.029	0.099	-0.167,0.225	0.774
Height at baseline, cm	0.07	0.058	-0.045,0.185	0.233	0.199	0.081	0.038,0.359	0.016
Diabetes Status at baseline	1.488	3.058	-4.527,7.503	0.627	-0.961	2.807	-6.510,4.588	0.733
Physical Activity Index at baseline	-0.015	0.063	-0.138,0.108	0.812	0	0.071	-0.140,0.14	0.995
Interleukin-6 at baseline, pg/mL	0.035	0.213	-0.384,0.453	0.87	0.034	0.062	-0.088,0.155	0.587
Estrogenic Status at baseline					2.923	1.083	0.781,5.065	0.008
Model 6: adjusting for baseline VAT, age, height, diabetes status, Physical activity, Adiponectin, and IL-6								
VAT Difference, scaled by 100cm3	-0.243	0.07	-0.381,-0.106	<0.001	-0.105	0.108	-0.319,0.11	0.336
VAT at baseline, scaled by 100 cm3	-0.215	0.062	-0.337,-0.092	<0.001	-0.126	0.088	-0.300,0.048	0.153
Age at baseline, yr	-0.098	0.088	-0.270,0.075	0.266	0.029	0.1	-0.168,0.226	0.774
Height at baseline, cm	0.085	0.059	-0.030,0.201	0.147	0.198	0.082	0.035,0.361	0.017
Diabetes Status at baseline	1.307	3.048	-4.688,7.302	0.668	-0.965	2.821	-6.541,4.612	0.733
Physical Activity Index at baseline	-0.022	0.063	-0.146,0.101	0.72	0	0.071	-0.141,0.14	0.995
Adiponectin at baseline, µg/mL	-0.106	0.067	-0.239,0.026	0.116	0.003	0.104	-0.203,0.209	0.979
Interleukin-6 at baseline, pg/mL	0.058	0.212	-0.360,0.475	0.785	0.034	0.062	-0.089,0.156	0.588
Estrogenic Status at baseline					2.917	1.114	0.714,5.119	0.01

Figures

Supplemental Figure 1. Relationship between six-year changes in VAT and six-year change in paraspinal muscle density (HU) in men and women. The dashed line in pink represents the association in women and the dash-dotted line in blue represents the association in men. Blue and pink dots represent data points from men and women sample, respectively.