

Supplementary Table S5. Sensitivity analysis including infrarenal abdominal aortic aneurysm (AAA) only. Comparison of vascular morphology for women and men without propensity score matching for cardiovascular risk factors. Measurements generated using fully automated volume segmentation.

	Women (n=139)	Men (n=1251)	p-value
AAA Neck – mm			
Neck Diameter	22.39 [20.34, 25.58]	24.32 [22.36, 27.11]	<.001
Maximum Neck Diameter	27.27 [25.09, 31.97]	29.62 [26.99, 32.80]	<.001
Minimum Neck Diameter	20.76 [18.94, 23.28]	22.62 [20.75, 25.06]	<.001
Neck Length	24.80 [14.98, 33.83]	29.04 [18.47, 40.95]	<.001
Infrarenal Neck Angle*	35.88 [27.65, 47.43]	32.86 [24.95, 41.91]	.001
Vessel Diameters – mm			
Coeliac Artery	6.50 [5.36, 7.44]	7.06 [6.20, 8.09]	<.001
Superior Mesenteric Artery	5.80 [4.82, 6.70]	6.94 [6.11, 7.82]	<.001
Left Renal Artery	4.51 [3.70, 5.26]	4.98 [4.30, 5.76]	<.001
Right Renal Artery	4.09 [3.50, 4.88]	4.72 [4.09, 5.41]	<.001
Left CIA	11.91 [10.30, 13.76]	14.39 [12.64, 17.12]	<.001
Right CIA	12.75 [10.80, 15.70]	14.90 [13.13, 17.62]	<.001
Left EIA	7.34 [6.53, 7.99]	9.17 [8.20, 10.20]	<.001
Right EIA	7.34 [6.44, 7.87]	9.12 [8.12, 10.11]	<.001
Left IIA	6.47 [5.35, 7.70]	7.72 [6.44, 9.20]	<.001
Right IIA	6.77 [5.86, 8.09]	7.77 [6.54, 9.14]	<.001
CIA Stenosis – %			
Right CIA	13.49 [9.57, 20.14]	13.19 [9.60, 17.89]	.336

Left CIA	11.09 [7.86, 16.60]	11.24 [8.00, 15.59]	.829
Tortuosity Index			
Thoracic Aorta	1.19 [1.02, 1.34]	1.21 [1.03, 1.29]	.857
Neck	1.01 [1.00, 1.02]	1.01 [1.00, 1.02]	.933
Coeliac Artery	1.04 [1.01, 1.11]	1.05 [1.01, 1.10]	.826
Superior Mesenteric Artery	1.05 [1.02, 1.10]	1.04 [1.02, 1.07]	.005
Left Renal Artery	1.11 [1.04, 1.24]	1.08 [1.04, 1.17]	.099
Right Renal Artery	1.12 [1.06, 1.21]	1.11 [1.06, 1.17]	.026
Infrarenal Aorta	1.10 [1.07, 1.15]	1.08 [1.05, 1.12]	<.001
Left CIA	1.07 [1.04, 1.15]	1.07 [1.03, 1.14]	.50
Right CIA	1.06 [1.03, 1.10]	1.07 [1.03, 1.13]	.004
Left EIA	1.12 [1.08, 1.21]	1.15 [1.10, 1.22]	<.001
Right EIA	1.17 [1.10, 1.25]	1.19 [1.12, 1.28]	.020
Left IIA	1.11 [1.06, 1.20]	1.12 [1.06, 1.23]	.376
Right IIA	1.10 [1.05, 1.19]	1.10 [1.05, 1.18]	.296
Calcification** – cm³			
Neck	0.04 [0.01, 0.16]	0.05 [0.00, 0.19]	.917
Left Renal Artery	0.00 [0.00, 0.00]	0.00 [0.00, 0.00]	.577
Right Renal Artery	0.00 [0.00, 0.01]	0.00 [0.00, 0.00]	.007
Left CIA	0.20 [0.09, 0.42]	0.24 [0.08, 0.47]	.474
Right CIA	0.24 [0.10, 0.48]	0.27 [0.10, 0.55]	.400
Left IIA	0.05 [0.00, 0.12]	0.05 [0.00, 0.15]	.561
Right IIA	0.03 [0.00, 0.11]	0.03 [0.00, 0.11]	.869

Data presented as median [interquartile range]. Abbreviations: CIA – common iliac artery, EIA

– external iliac artery, IIA – internal iliac artery, AAA –abdominal aortic aneurysm, IQR –

*Interquartile Range. * – Neck angle data presented in degrees. ** Calcification data presented for vessels where segmentation was successful in for >90% of scans.*