

SUPPLEMENTAL MATERIAL

Table S1. Comparison of demographic study parameters between participating (1) and non-participating (0) subjects of the WHISTLER cohort

Study parameter	Participating†	N†	n (%)	P§
			Mean +/- SD*	
			Median (Q1, Q3)*	
Age (years)	0	98	8.11 ± 0.41	0.66
	1	139	8.12 ± 0.42	
Sex	0 / 1		40 (40.8) / 59 (42.4)	0.91
	- boy			
	0 / 1		58 (59.2) / 80 (57.6)	
Height (cm)	0	98	132.1 ± 6.8	0.64
	1	139	132.5 ± 5.4	
Weight (kg)	0	98	27.95 ± 5.26	0.88
	1	139	28.04 ± 4.37	
BMI (kg/m²)*	0	98	15.90 ± 1.91	0.93
	1	139	15.91 ± 1.75	
Waist Circumference (cm)	0	98	58.19 ± 5.33	0.64
	1	139	58.31 ± 5.00	
SBP (mmHg)*	0	98	106.0 ± 7.0	0.25
	1	139	107.0 ± 9.0	
DBP (mmHg)*	0	98	56.0 ± 6.0	0.91
	1	139	55.0 ± 6.0	
Common CIMT (mm)*	0	98	0.38 (0.35, 0.40)	0.60
	1	139	0.38 (0.35, 0.41)	
Common Carotid Distensibility (MPA⁻¹)*	0	96	84.66 (67.90, 97.27)	0.46

	1	131	85.65 (71.44, 97.71)	
Common Carotid YEM (kPa)*	0	96	175.90 (151.18, 220.89)	0.78
	1	131	182.55 (147.89, 221.42)	

* SD: standard deviation, Q1: 25th percentile, Q3: 75th percentile, BMI: body mass index, SBP: systolic blood pressure, DBP: diastolic blood pressure, CIMT: carotid intima-media thickness, YEM: Young's Elastic Modulus, WHISTLER: Wheezing Illnesses Study Leidsche Rijn

† N = 237, 0: n = 98 (not participating) / 1: n = 139 (participating)

§ P values for independent samples t-test (parameters with normal distribution), Mann-Whitney U test (parameters with non-normal distribution) and χ^2 test (categorical parameters)

Supplemental Table S2. Vascular wall parameters*

Equations	
Δd (change in carotid diameter)	$d_{\text{systolic}} - d$
MAP	$DBP + (SBP - DBP) / 3$
CF (conversion factor)	$(MAP - DBP) / d_{\text{mean}} - d$
Δp (carotid pulse pressure)	$CF * \Delta d$
ΔA (change in arterial cross-sectional area)	$\pi / 4 * [(d + \Delta d)^2 - d^2]$
DC	$(\Delta A / A) / \Delta p = (2 \Delta d * d + \Delta d^2) / (\Delta p * d^2)$
YEM	$(d / \text{common carotid IMT}) / DC$
Abbreviations	
d_{systolic}	Mean end-systolic carotid lumen diameter (μm)
D	Mean end-diastolic carotid lumen diameter (μm)
A	Carotid cross-sectional area (μm^2)
DC	Carotid distensibility coefficient (MPa^{-1})
YEM	Carotid elasticity, Young's Modulus (kPa)
Common carotid IMT	Carotid intima-media thickness (mm)
SBP	Systolic blood pressure in brachial artery (mmHg)
DBP	Diastolic blood pressure in brachial artery (mmHg)
MAP	Mean arterial pressure in brachial artery (mmHg)

*Reproduced from: "Eikendal AL, den Ruijter HM, Uiterwaal CS, Pasterkamp G, Hofer IE, de Kleijn DP, et al. Extracellular vesicle protein CD14 relates to common carotid intima-media thickness in eight year old children. *Atherosclerosis*. 2014;236(2):270-6" with permission from Elsevier.