

Supplementary Table 1. Heart rate variability (HRV) in diabetes vs age-matched controls

HRV Parameter	Controls	Diabetes group	P-value
N	62	445	-
Age (years)	14.2 (2.3)	14.3 (2.3)	0.83
Height SDS	0.46 (1.28)	0.38 (1.02)	0.64
Weight SDS	0.24 (1.04)	0.72 (0.83)	<0.01
BMI SDS	0.09 (0.90)	0.62 (0.85)	<0.01
Heart rate (bpm)	71 (12)	75 (12)	0.04
SDNN (ms)	84 (40)	72 (33)	0.03
RMSSD (ms)	85 (57)	67 (46)	0.02
LF Power	2190 (2855)	1296 (1836)	0.12
HF Power	3406 (5013)	2253 (3494)	0.08
LF:HF ratio	0.9 (0.6)	1.3 (1.2)	<0.01
TI	18 (7)	16 (6)	0.01

Abbreviations: HRV heart rate variability; SDS standard deviation scores; BMI body mass index; SDNN standard deviation of mean NN intervals; RMSSD root mean squared difference of successive NN-intervals; LF low frequency; HF high frequency; TI triangular index; ACR standardized albumin:creatinine ratio

Supplementary Table 2. Participant characteristics in all three tertiles

Characteristics	Lower tertile	Middle tertile	Upper tertile	p-value
N	126	91	228	
Age (years)	14.6 (1.5)	14.5 (1.4)	14.1 (1.5)	<0.01
Duration (years)	8.0 (3.5)	7.1 (3.0)	6.4 (3.0)	<0.001
eGFR (mL/min/1.73m ²)	122 (19)	122 (26)	132 (25)	<0.001
HbA1c (%)	8.4 (1.2)	8.2 (1.2)	8.5 (1.4)	0.13
HbA1c (mmol/mol)	68 (13)	66 (13)	69 (15)	
Cholesterol (mmol/L)	4.6 (0.9)	4.3 (0.8)	4.5 (0.9)	0.02
SBP SDS	0.41 (0.92)	0.29 (0.78)	0.78 (1.03)	<0.001
DBP SDS	0.45 (2.36)	-0.14 (0.77)	0.40 (0.77)	<0.01
Height SDS	0.37 (1.08)	0.40 (1.05)	0.38 (0.97)	0.99
Weight SDS	0.76 (0.76)	0.78 (0.78)	0.67 (0.83)	0.46
BMI SDS	0.67 (0.79)	0.68 (0.81)	0.55 (0.90)	0.34

Abbreviations: eGFR estimated glomerular filtration rate, SBP systolic blood pressure, DBP diastolic blood pressure, SDS standard deviation score