Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

BMJ Open Diab Res Care

Table S1. Repeatability of blood flow velocity and flow measurement

Blood flow velocity	PTA	FPPDA	FiCPDA	SCPDA	TCPDA	FoCPDA
$ICC_{3,1}$	0.973	0.992	0.998	0.998	0.956	0.974
95% CI	(0.962-0.986)	(0.989-0.994)	(0.997-0.998)	(0.998-0.999)	(0.941-0.968)	(0.961-0.985)
Blood flow	PTA	FPPDA	FiCPDA	SCPDA	TCPDA	FoCPDA
$ICC_{3,1}$	0.980	0.880	0.910	0.920	0.914	0.944
95% CI	(0.973-0.985)	(0.842-0.911)	(0.881-0.934)	(0.893-0.941)	(0.897-0.931)	(0.926-0.959)

$ICC_{3,1}$: intraclass correlation coefficient (3, 1), 95% CI: 95% confidence interval

Table S2. Blood flow velocity of blood vessels in different age groups (unit: cm/s)

Vessels	Age group	Healthy		DPN	
		Male	Female	Male	Female
FPPDA	1	12.96±4.08[a]	15.48±1.67 [a]	25.22±3.70 [a]	24.67±4.14 [a]
	2	15.81±4.94[a]	14.65±3.96 [a]	29.73±8.11 [a]	24.58±3.71 [a]
	3	17.90±4.23[a]	18.14±4.69 [a]	27.64±8.27 [a]	26.18±5.88 [a]
FiCPDA	1	16.01±5.04[a]	17.01±3.06 [a]	29.21±6.84 [a]	27.27±4.04 [a]
	2	18.01±3.00[a]	17.22±3.97 [a]	28.97±7.93 [a]	27.38±5.99 [a]
	3	19.63±4.12 [a]	19.63±3.35 [a]	25.43±6.28 [a]	26.46±4.60 [a]
SCPDA	1	17.81±2.36 [a]	18.70±2.76 [a]	27.15±8.51 [a]	24.12±1.56 [a]

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

BMJ Open Diab Res Care

Vessels	Age group	Male	Female	Male	Female
	2	19.79±2.79 a	19.48±3.84 a	26.28±4.42 a	27.47±5.22 a
	3	17.49±2.87 a	18.84±4.31 a	24.24±5.57 a	24.28±5.22 a
	1	21.66±4.02 a	21.38±4.33 a	33.13±8.16 a	28.00±5.08 a
TCPDA	2	21.54±3.01 a	22.69±4.51 a	34.04±6.68 a	29.75±3.73 a
	3	24.12±3.82 a	25.07±3.54 a	30.77±7.70 a	30.72.2325 a
	1	19.19±7.31 a	20.42±4.62 a	30.45±4.69 a	27.69±4.66 a
FoCPDA	2	20.25±4.00 a	19.96±5.82 a	27.64±5.58 a	25.87±3.18 a
	3	23.69±6.51 a	19.63±4.28 a	31.52±8.38 a	27.54±7.72 a
	1	30.86±6.61 a	32.16±3.97 a	32.53±3.54 a	33.27±8.30 a
PTA	2	32.18±7.71 a	29.89±3.98 a	37.09±10.18 a	34.75±5.71 a
	3	35.69±9.76 a	36.03±6.12 a	34.49±12.19 a	41.57±15.39a

Values are expressed as means ± standard deviation

The multiple comparisons were carried out for the statistical analysis. Three comparisons were made between the three different age groups, and the P-values were corrected to 0.05/3=0.0167. Identical letters indicate age groups within a column that there is no significant difference between each other ($P>0.0167$).

Table S3. Blood flow of blood vessels in different age groups (unit: ml/min)

Vessels	Age group	Healthy		DPN	
		Male	Female	Male	Female
	1	1.20±0.42a	1.30±0.48 a	2.37±0.67 a	2.13±1.07 a
FPPDA	2	1.20±0.63a	1.30±0.48a	2.77±0.82 a	2.53±1.06 a
	3	1.40±0.70a	1.60±0.70a	2.60±1.39a	3.17±0.82 a
FiCPDA	1	1.50±0.53 a	1.50±0.71 a	2.63±0.76 a	2.60±1.23a
	2	1.30±0.48 a	1.30±0.48 a	2.64±1.11 a	3.03±0.71a

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

BMJ Open Diab Res Care

	3	1.50±0.71 [a]	1.80±0.92 [a]	2.23±0.82 [a]	2.70±0.73 [a]
	1	1.40±0.70 [a]	1.30±0.48 [a]	2.30±0.74 [a]	2.13±1.07[a]
SCPDA	2	1.30±0.48 [a]	1.30±0.48 [a]	2.43±1.25 [a]	2.77±0.63 [a]
	3	1.40±0.52 [a]	1.70±0.67[a]	2.67±1.49 [a]	2.90±1.21 [a]
	1	1.50±0.53 [a]	1.30±0.67 [a]	2.53±0.36[a]	2.17±0.53[a]
TCPDA	2	1.20±0.42 [a]	1.40±0.70 [a]	2.63±1.29 [a]	2.40±0.62 [a]
	3	1.80±0.79 [a]	1.40±0.52 [a]	2.73±0.89 [a]	2.17±0.98 [a]
	1	1.30±0.48 [a]	1.60±0.70 [a]	3.23±1.34 [a]	3.47±1.90 [a]
FoCPDA	2	1.30±0.67 [a]	1.10±0.32[a]	2.60±1.36 [a]	2.94±1.89 [a]
	3	1.50±0.71 [a]	1.70±0.82 [a]	2.93±1.77[a]	2.97±1.54[a]
	1	3.80±2.20 [a]	4.00±2.45 [a]	3.40±0.98 [a]	3.10±1.64 [a]
PTA	2	2.80±1.69[a]	2.50±1.08[a]	4.17±1.94 [a]	3.40±1.58 [a]
	3	4.30±2.06 [a]	3.40±1.07 [a]	4.07±1.61 [a]	4.67±3.37 [a]

Values are expressed as means ± standard deviation

The multiple comparisons were carried out for the statistical analysis. Three comparisons were made between the three different age groups, and the P-values were corrected to 0.05/3=0.0167. Identical letters indicate age groups within a column that there is no significant difference between each other ($P>0.0167$).

Table S4. *P*-values results of blood flow velocity between different genders.

Vessels	Gender		Healthy			DPN		
			Age group 1	Age group 2	Age group 3	Age group 1	Age group 2	Age group 3
FPPDA	Male	Female	0.087	0.572	0.908	0.759	0.084	0.653
	Female	Male	0.087	0.572	0.908	0.759	0.084	0.653
FiCPDA	Male	Female	0.600	0.625	0.999	0.450	0.621	0.680

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

BMJ Open Diab Res Care

	Female	Male	0.600	0.625	0.999	0.450	0.621	0.680
SCPDA	Male	Female	0.449	0.838	0.420	0.283	0.589	0.988
	Female	Male	0.449	0.838	0.420	0.283	0.589	0.988
TCPDA	Male	Female	0.883	0.512	0.569	0.109	0.094	0.988
	Female	Male	0.883	0.512	0.569	0.109	0.094	0.988
FoCPDA	Male	Female	0.656	0.898	0.117	0.204	0.385	0.285
	Female	Male	0.656	0.898	0.117	0.204	0.385	0.285
PTA	Male	Female	0.614	0.415	0.925	0.800	0.533	0.269
	Female	Male	0.614	0.415	0.925	0.800	0.533	0.269

Table S5. *P*-values results of Blood flow between different genders.

Vessels	Gender		Healthy			DPN		
			Age group 1	Age group 2	Age group 3	Age group 1	Age group 2	Age group 3
FPPDA	Male	Female	0.628	0.696	0.530	0.565	0.586	0.283
	Female	Male	0.628	0.696	0.530	0.565	0.586	0.283
FiCPDA	Male	Female	1.000	1.000	0.424	0.943	0.351	0.195
	Female	Male	1.000	1.000	0.424	0.943	0.351	0.195
SCPDA	Male	Female	0.714	1.000	0.279	0.689	0.459	0.707
	Female	Male	0.714	1.000	0.279	0.689	0.459	0.707
TCPDA	Male	Female	0.470	0.449	0.196	0.087	0.614	0.192
	Female	Male	0.470	0.449	0.196	0.087	0.614	0.192
FoCPDA	Male	Female	0.279	0.407	0.567	0.754	0.654	0.964

	Female	Male	0.279	0.407	0.567	0.754	0.654	0.964
	Male	Female	0.850	0.641	0.236	0.627	0.346	0.617
PTA	Female	Male	0.850	0.641	0.236	0.627	0.346	0.617

Table S6. *P*-values results of blood flow velocity in three different age groups.

Age group	Compared age group	FPPDA				FiCPDA			
		Healthy		DPN		Healthy		DPN	
		Male	Female	Male	Female	Male	Female	Male	Female
1	2	0.486	1.000	0.487	1.000	0.872	1.000	1.000	1.000
	3	0.057	0.353	1.000	1.000	0.183	0.312	0.722	1.000
2	1	0.486	1.000	0.487	1.000	0.872	1.000	1.000	1.000
	3	0.898	0.130	1.000	1.000	1.000	0.402	0.816	1.000
3	1	0.057	0.353	1.000	1.000	0.183	0.312	0.722	1.000
	2	0.898	0.130	1.000	1.000	1.000	0.402	0.816	1.000

Age group	Compared age group	SCPDA				TCPDA			
		Healthy		DPN		Healthy		DPN	
		Male	Female	Male	Female	Male	Female	Male	Female
1	2	0.335	1.000	1.000	0.291	1.000	1.000	1.000	1.000
	3	1.000	1.000	0.957	1.000	0.429	0.170	1.000	0.628
2	1	0.335	1.000	1.000	0.291	1.000	1.000	1.000	1.000
	3	0.198	1.000	1.000	0.339	0.377	0.628	1.000	1.000
3	1	1.000	1.000	0.957	1.000	0.429	0.170	1.000	0.628
	2	0.198	1.000	1.000	0.339	0.377	0.628	1.000	1.000

Age	Compared	FoCPDA			PTA		

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

BMJ Open Diab Res Care

group	age group	Healthy		DPN		Healthy		DPN	
		Male	Female	Male	Female	Male	Female	Male	Female
1	2	1.000	1.000	1.000	1.000	1.000	0.926	0.862	1.000
	3	0.332	1.000	1.000	1.000	0.587	0.236	1.000	0.275
2	1	1.000	1.000	1.000	1.000	1.000	0.926	0.862	1.000
	3	0.657	1.000	0.561	1.000	1.000	0.024	1.000	0.487
3	1	0.332	1.000	1.000	1.000	0.587	0.236	1.000	0.275
	2	0.657	1.000	0.561	1.000	1.000	0.024	1.000	0.487

Table S7. *P*-values results of blood flow in three different age groups.

Age group	Compared age group	FPPDA				FiCPDA			
		Healthy		DPN		Healthy		DPN	
		Male	Female	Male	Female	Male	Female	Male	Female
1	2	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.912
	3	1.000	0.735	1.000	0.080	1.000	1.000	1.000	1.000
2	1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.912
	3	1.000	0.735	1.000	0.488	1.000	0.404	0.997	1.000
3	1	1.000	0.735	1.000	0.080	1.000	1.000	1.000	1.000
	2	1.000	0.735	1.000	0.488	1.000	0.404	0.997	1.000

Age group	Compared age group	SCPDA				TCPDA			
		Healthy		DPN		Healthy		DPN	
		Male	Female	Male	Female	Male	Female	Male	Female
1	2	1.000	1.000	1.000	0.502	0.819	1.000	1.000	1.000
	3	1.000	0.355	1.000	0.293	0.819	1.000	1.000	1.000
2	1	1.000	1.000	1.000	0.502	0.819	1.000	1.000	1.000

	3	1.000	0.355	1.000	1.000	0.101	1.000	1.000	1.000
3	1	1.000	0.355	1.000	0.293	0.819	1.000	1.000	1.000
	2	1.000	0.355	1.000	1.000	0.101	1.000	1.000	1.000

Age group	Compared age group	FoCPDA				PTA			
		Healthy		DPN		Healthy		DPN	
		Male	Female	Male	Female	Male	Female	Male	Female
1	2	1.000	0.290	1.000	1.000	0.816	0.162	0.845	1.000
	3	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.443
2	1	1.000	0.290	1.000	1.000	0.816	0.162	0.845	1.000
	3	1.000	0.146	1.000	1.000	0.312	0.712	1.000	0.717
3	1	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.443
	2	1.000	0.146	1.000	1.000	0.312	0.712	1.000	0.717