Supplementary Table 1: Assessment of methodological quality of studies

	Study	**Bacarin et al. 2009 [40]**		**Brash et al. 1996 [42]**		**Armstrong et al. 1998 [23]**		**Stess et al. 1997 [35]**		**Rich et al. 2000 [38]**		**Sauseng et al. 1999 [36]**		**Cavanagh et al. 1991 [34]**		**Boulton et al. 1983 [33]**	
Q No.	**Question**	**EP**	**PL**	**EP**	**PL**	**EP**	**PL**	**EP**	**PL**	**EP**	**PL**	**EP**	**PL**	**EP**	**PL**	**EP**	**PL**
1	Clear Aim/Purpose	Y	Y	Y	Y	Y	Y	P	Y	P	Y	Y	Y	Y	Y	P	Y
2	Suitable Design was used?	P	P	Y	P	P	P	Y	P	Y	Y	P	P	Y	P	Y	P
3	Efficient recruitment strategy used?	Y	P	Y	P	Y	P	Y	Y	P	P	Y	P	Y	P	Y	P
4	Suitable exclusion and inclusion criteria?	Y	P	Y	P	P	P	P	P	P	P	P	Y	Y	P	Y	P
5	Data reported for at least 85% on a key outcome?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
6	Discussed main sources of bias?	Y	Y	N	N	Y	P	N	N	N	N	Y	P	Y	Y	N	N
7	Were the methods justified?	Y	Y	P	Y	P	Y	Y	P	Y	Y	N	N	Y	Y	Y	Y
8	Was a power calculation for sample conducted?	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
9	Were Confounders identified?	Y	Y	P	Y	Y	Y	P	P	Y	Y	Y	Y	P	Y	P	Y
10	Confounders accounted for in analysis?	Y	Y	P	P	Y	Y	Y	P	Y	Y	Y	Y	Y	Y	P	Y
11	Between group results reported for at least one key outcome?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
12	Compared findings to literature?	Y	Y	Y	Y	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
13	Findings relevant to aims?	Y	Y	Y	P	P	P	Y	P	Y	Y	Y	Y	Y	Y	P	P
14	Results statistically appropriate?	Y	Y	N	N	P	Y	P	Y	Y	Y	P	Y	N	N	N	N
15	Are findings applicable to a clinical scenario?	P	Y	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P
16[a]	Assessed degree of neuropathy of participants?	Y	Y	Y	Y	P	P	P	P	Y	Y	Y	Y	Y	Y	Y	Y
17[a]	PVD* identified in participants or excluded?	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y
18[a]	Diabetes duration and type of diabetes identified?	Y	Y	P	P	Y	P	P	P	P	Y	Y	Y	Y	Y	Y	Y
19[a]	Level of glycaemic control of participants was reported (i.e. hbA1c)?	Y	Y	N	N	N	N	N	N	N	N	Y	Y	N	N	N	N
20[a]	Foot structure reported?	P	P	N	N	N	N	N	N	P	P	P	P	P	P	N	N
21[a]	Absence/ presence of current/ past foot ulceration identified?	Y	Y	Y	Y	Y	Y	Y	Y	Y	P	Y	P	Y	P	Y	Y
22[a]	Does the study specify methods of plantar pressure capture and analysis?	P	P	P	P	P	P	P	P	P	P	Y	P	Y	P	P	P
23[a]	Does the study state the number of steps used in capture?	Y	Y	Y	Y	Y	Y	P	Y	Y	Y	Y	Y	Y	Y	N	N
24[a]	Study specifies any verbal instructions given to participants?	Y	Y	N	N	N	N	N	N	Y	Y	N	N	N	N	N	N
25[a]	Number of walking trials reported?	P	Y	N	N	N	N	Y	Y	Y	Y	N	N	P	Y	N	N
Total	Total independent quality scores	41	41	31	28	33	31	32	31	38	39	38	36	37	34	29	26
Mean	Mean Scores	41 (15)		29 (10)		32 (9)		31 (10)		38 (15)		37 (14)		35 (11)		27 (9)	

Legend: Methodological quality of studies as assessed independently by (EP) and (PL) using a modified quality assessment tool. For the scoring system, 1= (P) partially, 0 = (N) no and 2= (Y) yes. The Total score was out of a possible 50. Mean scores were the average of the two individual scores rounded down to the nearest integer. The mean scores in (brackets) indicate mean scores for the assessment of participant and plantar pressure related methodology out of a total of 22 (Q16-Q25).

*PVD= Peripheral Vascular Disease

[a] These were the subject relevant questions (regarding participant specific characteristics and methods of plantar pressure measurement) which were assessed as suitable by a panel of experts and were added to the quality assessment tool;

- The identification and quantification of DPN-How was neuropathy diagnosed and quantified?
- The identification or exclusion of PVD in participants- Was PVD accounted for appropriately?
- The identification of type of diabetes and diabetes duration in participants- These are important considerations in diabetes foot ulcer pathogenesis.
- Whether the glycaemic control of the participants' was reported- This gives guidance as to the level of glycemic control of participants
- Whether the foot structure of participants was reported- An important consideration in the assessment of plantar pressure.
- Whether a history of diabetes foot ulceration or current diabetes foot ulceration was checked in all participants?
- Whether the methods pertaining to plantar pressure capture were reported; this included the general methods, number of steps, verbal instructions and number of walking trials- This was to identify the feasibility for reproducibility of the study using appropriate methods.

Supplementary Table 2: Plantar pressure distribution

Study	Rear foot		Mid foot		Fore foot		Overall Plantar Pressure	
Group	PPDFU	DPN	PPDFU	DPN	PPDFU	DPN	PPDFU	DPN
Bacarin 2009 [40]								
MPP (N/cm^2)	34.2 (11.9)	34.2 (7.6)	29.0 (15.1)	20.5 (11.8)	36.7 (8.6)	36.7 (8.9)	36.7 (8.6)	36.7 (8.9)
PTI (Ns/Cm^2)	10.2 (3.7)	9.4 (2.9)	6.8 (3.6)	4.3 (0.9)	12.5 (3.3)	11.9 (3.1)	12.9 (3.3)	11.9 (3.1)
Cavanagh[a] [34] 1991								
MPP (N/cm^2)							80.4 (34.2)	83.7 (35.8)
Sauseng[b] 1999 [36]								
MPP (N/cm^2)			10.5 (11.1)	20.5 (19.3)	56.0 (48.2)	26.0 (12.6)	56.0 (48.2)	26.0(12.6)
PTI (Ns/Cm^2)			3.8 (3.5)	8.1 (8.0)	23.2 (16.6)	9.4 (4.7)	23.2 (16.6)	9.4 (4.7)
Armstrong 1998 [23]								
MPP (N/cm^2)					83.1 (24.7)	62.7 (21.4)	83.1 (24.7)	62.7 (21.4)
Boulton [33] 1983[a]								
MPP (N/cm^2)							149.06 (67.7)	107.87 (47.6)
Rich [c] 2000 [38]								
MPP (N/cm2)	34.0 (18.0)	31.0 (15.0)			82.0 (43.0)	66 (28.0)	82.0 (43.0)	66.0 (28.0)
Brash 1996 [42]								
MPP (N/cm2)					67.0 (20.0)	60.0 (13.0)	67.0 (20.0)	60.0 (13.0)
Stess 1997[a, d] [35]								
MPP (N/cm2)					48.0 (12.6)	40.5 (10.5)	48.0 (12.6)	40.5 (10.5)
PTI (Ns/Cm2)					32.0 (14.0)	23 (7.5)	32.0 (14.0)	23 (7.5)

Legend: Reported foot plantar pressures and pressure time integrals normalised to body weight (mean) and (SD).

Where multiple results were reported, the highest value in the PPDFU group was used with the corresponding value in the control group. For overall peak pressure, the highest reported MPP and PTI was used, irrespective of location.

[a] This study did not report S D therefore the S D were estimated, the values in brackets indicate estimated S D (please see manuscript for details of how these were approximated).

[b] This study did not report Mean and s.d and in place (IQR) was reported.

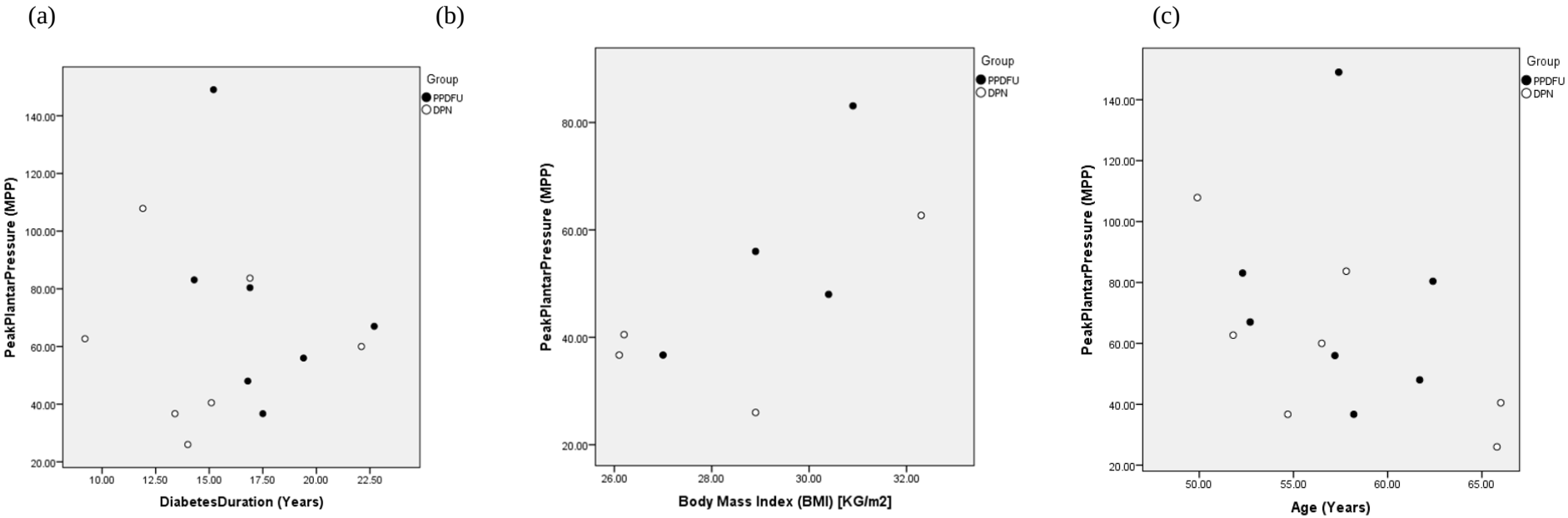
[c] This study reported findings as number of feet instead of patients.

[d] This study reported absolute values for MPP but not for PTI, therefore the PTI values were estimated from graphs provided.

Supplementary Figure 1: Search Strategy

1.Diabetes (exp Diabetes Mellitus, Type 2/ or exp Diabetes Mellitus/ or exp Diabetes Mellitus, Type 1/)
2.Diabetes Neuropathy- Mesh (diabetes autonomic neuropathie) or (neuropathies diabetes autonomic) or (mononeuropathy diabetes) or (diabetes mononeuropathy simplices) or (diabetes neuralgias) or (diabetes autonomic neuropathy) or (autonomic neuropathy diabetes) or(diabetes asymmetric polyneuropathies) or (diabetes polyneuropathy) or (simplex diabetes mononeuropathy) or (mononeuropathy simplices diabetes) or (neuropathies diabetes) or (neuralgia diabetes) or (asymmetric polyneuropathy diabetes) or (diabetes polyneuropathies) or (diabetes mononeuropathies) or (diabetes mononeuropathy) or (autonomic neuropathies diabetes) or (neuropathy diabetes) or (mononeuropathies diabetes) or (polyneuropathy diabetes asymmetric) or (diabetes asymmetric polyneuropathy) or (diabetes mononeuropathy simplex) or (diabetes neuropathy) or (polyneuropathy diabetes) or (diabetes neuropathies) or (asymmetric diabetes proximal motor neuropathy) or (asymmetric polyneuropathies diabetes) or (neuropathy diabetes autonomic) or (painful diabetes neuropathy) or (polyneuropathies diabetes).
3.Diabetes foot- Mesh (diabetes feet) or (diabetes foot) or (feet diabetes) or(foot diabetes) or (foot ulcer diabetes)
4.Foot ulcer- Mesh (foot ulcer) or (foot ulcer) or (ulcer foot) or (plantar ulcer) or (ulcers foot) or (ulcers plantar)or(ulcer plantar)or (plantar ulcers)
5.Plantar pressure
6.Weight-bearing – Mesh (load bearing) or (load bearing) or (weight bearing) or (weight-bearing) or (load-bearing) or (weight bearing)
7.Peak plantar pressure
8.Pressure time integral
9.Force time integral
10.Combine 1 AND 2 AND 3 AND 4
11.Combine 5 AND 6 AND 7 AND 8 AND 9
12.Combine 10 AND 11

Supplementary Figure 2: Scatterplots for potential variables causing differences in plantar pressure



Legend: Scatterplots displaying potential variables influencing the differences in plantar pressure between PPDFU and DPN, at the aggregate level. These included diabetes duration (years), body mass index (BMI) and age.