Fig. S1. Mechanical power (N=21) from subareas of the foot: distal-to-hindfoot (solid lines) and summed midtarsal joint and distal-to-forefoot (dashed lines). After the center-of-pressure (COP) moves anterior to the midtarsal joint (denoted by the vertical lines), the magnitude of distal-to-hindfoot power is similar to the summation of midtarsal joint and distal-to-forefoot powers.

Table S1: Distal-to-Hindfoot Work during Stance

	Added Mass	Un-normalized (J)	Body Mass (J/kg)	*Body Mass + Added Mass (J/kg)*
		mean ± std.d		
Negative Work	%0	-8.0549 ± 3.5831*	-0.0982 ± 0.0354**	-0.0982 ± 0.0355
	%15	-8.1254 ± 3.8319+	-0.0972 ± 0.0310++	-0.0865 ± 0.0273
	%30	-9.2261 ± 4.2079*,+	-0.1122 ± 0.0379**,++	-0.0885 ± 0.0299
Positive Work	%0	4.6847 ± 2.2115¥,⊞	0.0557 ± 0.0228¥¥	0.0557 ± 0.0228
	%15	5.3558 ± 2.2739¥	0.0641 ± 0.0237	0.0571 ± 0.0213
	%30	5.7480 ± 2.6823⊞	0.0682 ± 0.0260¥¥	0.0538 ± 0.0204
Net Work	%0	-3.3702 ± 3.9143	-0.0425 ± 0.0453	-0.0425 ± 0.0453
	%15	-2.7696 ± 4.2325	-0.0331 ± 0.0457	-0.0294 ± 0.0406
	%30	-3.4780 ± 4.6964	-0.0439 ± 0.0498	-0.0347 ± 0.0392

* $p = 0.029$ || +$p = 0.013$ || **$p = 0.023$ || ++ $p = 0.027$ || ¥$p = 0.032$ || ⊞ $p < 0.001$ || ¥¥$p < 0.001$

Table S2: Distal-to-Hindfoot Work when COP was posterior to midtarsal joint

	Added Mass	Un-normalized (J)	Body Mass (J/kg)	*Body Mass + Added Mass (J/kg)*
		mean ± std.d		
Negative Work	%0	-3.2841±0.9121*	-0.0400±0.0079+	-0.0400±0.0079
	%15	-3.4870±0.8901	-0.0424±0.0089	-0.0378±0.0081
	%30	-3.8335±0.7988*	-0.0473±0.0106+	-0.0378±0.0086
Positive Work	%0	0.2957±0.2264	0.0036±0.0028	0.0036±0.0028
	%15	0.3398±0.3470	0.0041±0.0040	0.0036±0.0035
	%30	0.3571±0.3288	0.0043±0.0036	0.0034±0.0029
Net Work	%0	-2.9884±0.9121**	-0.0363±0.0082++	-0.0363±0.0082
	%15	-3.1472±0.8668	-0.0384±0.0093	-0.0342±0.0085
	%30	-3.4763±0.7583**	-0.0431±0.0106++	-0.0340±0.0085

* p = 0.006 || +p = 0.013 || **p = 0.011 || ++ p = 0.021

Table S3: Distal-to-Hindfoot Work when COP was anterior to midtarsal joint

	Added Mass	Un-normalized (J)	Body Mass (J/kg)	*Body Mass + Added Mass (J/kg)*
			mean ± std.d	
Negative Work	**%0**	-4.7708±3.4361	-0.0582±0.0354	-0.0582±0.0354
	%15	-4.6389±3.4015	-0.0548±0.0300	-0.0487±0.0264
	%30	-5.3926±3.9707	-0.0648±0.0367	-0.0512±0.0288
Positive Work	**%0**	4.3890±2.1484[*,+]	0.0520±0.0221[**]	0.0520±0.0221
	%15	5.0159±2.1225[*]	0.0600±0.0219	0.0535±0.0197
	%30	5.3909±2.5230[+]	0.0640±0.0242[**]	0.0504±0.1900
Net Work	**%0**	-0.3818±3.9544	-0.0062±0.0447	-0.0062±0.0447
	%15	0.3770±4.0165	0.0052±0.0438	0.0048±0.0390
	%30	-0.0017±4.7473	-0.0009±0.0493	-0.0007±0.0387

[*] $p = 0.040$ || [+]$p < 0.001$ || [**]$p < 0.001$

Table S4: Midtarsal 6DOF Joint Work during Stance

	Added Mass	Un-normalized (J)	Body Mass (J/kg)	*Body Mass + Added Mass (J/kg)*
		mean ± std.d		
Negative Work	%0	-4.0015±3.2081	-0.0478±0.0338	-0.0478±0.0338
	%15	-3.8525±3.3856	-0.0443±0.0290	-0.0393±0.0255
	%30	-4.3935±3.4278	-0.0523±0.0321	-0.0413±0.0253
Positive Work	%0	9.0485±3.7998[*+]	0.1078±0.0350[++,¥]	0.1078±0.0350[¥¥]
	%15	9.8870±3.7135[**,*]	0.1183±0.0353[++,‖]	0.1053±0.0314[‖‖]
	%30	10.5160±3.8066[+**]	0.1262±0.0385[¥,‖]	0.0995±0.0304[¥¥,‖‖]
Net Work	%0	5.0470±3.5946[•,♦]	0.0600±0.0425[••]	0.0600±0.0425
	%15	6.0345±3.5088[•]	0.0740±0.0430	0.0660±0.0384
	%30	6.1231±4.1247[♦]	0.0739±0.0494[••]	0.0582±0.03884

[*] p = 0.001 || [+]p < 0.001 || [**]p = 0.039 || [++] p < 0.001 || [¥]p < 0.001 || [‖] p = 0.028 || [¥¥]p = 0.029 || [‖‖] p = 0.040 || [•] p = 0.041 || [♦] p = 0.028 || [••] p = 0.025

Table S5: Distal-to-Forefoot Work during Stance

	Added Mass	Un-normalized (J)	Body Mass (J/kg)	*Body Mass + Added Mass (J/kg)*
			mean ± std.d	
Negative Work	%0	-6.1855±3.1207	-0.0755±0.0352	-0.0755±0.0352
	%15	-6.5815±2.9982*	-0.0769±0.0297	-0.0709±0.0263
	%30	-7.1175±3.0964*	-0.0864±0.0316	-0.0682±0.0250
Positive Work	%0	0.8085±0.5474**,+	0.0095±0.0057++,¥	0.0095±0.0057
	%15	0.9920±0.5826**	0.0117±0.0052++	0.0104±0.0046
	%30	1.1270±0.7161+	0.0129±0.0061¥	0.0102±0.0048
Net Work	%0	-5.3765±3.3617	-0.0660±0.0385	-0.0660±0.0385
	%15	-5.5895±3.1781	-0.0680±0.0328	-0.0605±0.0290
	%30	-5.9905±3.1358	-0.0735±0.0337	-0.0580±0.0267

* p = 0.025 || +p = 0.009 || **p = 0.013 || ++ p = 0.034 || ¥p = 0.006