Supplementary Material

Table S1. Additional regression models exploring explanatory variables (more than 10% effect on the primary outcome model) for the lower energy intake among advanced stage Parkinson disease patients in comparison to healthy controls (exploratory analysis).

Explanatory models	*B*	*t*	*p*	Lower Bound 95% Confidence Interval for B	Upper Bound 95% Confidence Interval for B
Spoonfuls					
Sex	183.045	4.004	0.000	91.493	274.598
Early PD	24.435	0.491	0.625	-75.256	124.126
Advanced PD	-99.466	-1.975	0.053	-200.296	1.364
Spoonfuls	9.259	5.867	0.000	6.098	12.419
UE Tremor					
Sex	310.753	5.833	0.000	204.063	417.443
Early PD	66.672	0.995	0.324	-67.541	200.885
Advanced PD	-127.330	-1.821	0.074	-267.331	12.672
Tremor UE	-21.665	-1.057	0.295	-62.692	19.362
Eating problems					
Sex	304.080	5.838	0.000	199.731	408.428
Early PD	43.816	0.701	0.486	-81.464	169.095
Advanced PD	-135.645	-2.094	0.041	-265.410	-5.879
Self-reported eating Problems	-58.564	-0.958	0.342	-181.021	63.894
Dysphagia					
Sex	301.607	5.809	0.000	197.629	405.585
Early PD	41.079	0.659	0.512	-83.683	165.841
Advanced PD	-139.809	-2.152	0.036	-269.886	-9.731
Dysphagia	-74.294	-1.092	0.279	-210.539	61.952

* = Model is significant, P<0.05. Sex: 1 = male, 0 = female. PD = Parkinson's disease. *B* = unstandardized *b* coefficients showing the change in kcal, *t* = the *t* test statistic, *p* = the probability value. UE = upper extremity.

Table S2. Additional regression models exploring variables that enhanced the lower energy intake more than 10% among advanced stage Parkinson disease patients in comparison to healthy controls (exploratory analysis).

Explanatory models	*B*	*t*	*p*	Lower Bound 95% Confidence Interval for B	Upper Bound 95% Confidence Interval for B
Brady-/hypokinesia					
Sex	297.363	5.686	0.000	192.632	402.095
Early PD	26.81	0.350	0.728	-124.965	177.927
Advanced PD	-182.928	-2.084	0.042	-358.678	-7.179
UE Brady-/hypokinesia	3.249	0.337	0.737	-16.038	22.535
Water intake					
Sex	299.814	5.766	0.000	195.692	403.936
Early PD	31.635	0.500	0.619	-94.967	158.238
Advanced PD	-186.555	-2.776	0.007	-321.144	-51.966
Water intake	-0.307	-0.931	0.356	-0.967	0.353
Constipation					
Sex	326.572	5.852	0.000	214.599	438.545
Early PD	59.796	0.903	0.370	-73.017	192.609
Advanced PD	-188.560	-2.772	0.008	-325.073	-52.046
Constipation	-10.381	-0.144	0.886	-154.874	134.111
Smell problems					
Sex	294.411	5.511	0.000	187.388	401.434
Early PD	7.384	0.085	0.933	-166.588	181.357
Advanced PD	-195.398	-2.261	0.028	-368.548	-22.247
Smell problems	49.313	0.586	0.560	-119.239	217.864

* = Model is significant, P<0.05. Sex: 1 = male, 0 = female. PD = Parkinson's Disease. *B* = unstandardized *b* coefficients, *t* = the *t* test statistic, *p* = the probability value. UE = upper extremity.

Table S3. Additional regression models exploring explanatory variables (more than 10% effect on the primary outcome model) for the lower energy intake among advanced stage Parkinson disease patients in comparison to early PD patients (exploratory analysis).

Explanatory models	*B*	*t*	*p*	Lower Bound 95% Confidence Interval for B	Upper Bound 95% Confidence Interval for B
Spoonfuls					
Sex	183.045	4.004	0.000	91.493	274.598
Healthy control	-24.435	-0.491	0.625	-124.126	75.256
Advanced PD	-123.901	-2.378	0.021	-228.226	-19.576
Spoonfuls	9.259	5.867	0.000	6.098	12.419
Eating problems					
Sex	304.080	5.838	0.000	199.731	408.428
Healthy control	-43.816	-0.701	0.486	-169.095	81.464
Advanced PD	-179.460	-2.751	0.008	-310.118	-48.803
Eating problems	-58.564	-0.958	0.342	-181.021	63.894
Dysphagia					
Sex	301.607	5.809	0.000	197.629	405.585
Healthy control	-41.079	-0.659	0.512	-165.841	83.683
Advanced PD	-180.888	-2.733	0.008	-313.415	-48.361
Dysphagia	-74.294	-1.092	0.279	-210.539	61.952

* = Model is significant, P<0.05. Sex: 1 = male, 0 = female. PD = Parkinson's Disease. *B* = unstandardized *b* coefficients showing the change in kcal, *t* = the *t* test statistic, *p* = the probability value.

Table S4. Additional regression models exploring variables that enhanced the lower energy intake more than 10% among advanced stage Parkinson disease patients in comparison to healthy controls (exploratory analysis).

Explanatory models	B	t	p	Lower Bound 95% Confidence Interval for B	Upper Bound 95% Confidence Interval for B
Constipation					
Sex	326.572	5.852	0.000	214.599	438.545
Healthy control	-59.796	-0.903	0.370	-192.609	73.017
Advanced PD	-248.356	-3.584	0.001	-387.399	-109.312
Constipation	-10.381	-0.144	0.886	-154.874	134.111

* = Model is significant, P<0.05. Sex: 1 = male, 0 = female. PD = Parkinson's Disease. B = unstandardized b coefficients showing the change in kcal, t = the t test statistic, p = the probability value.

Figure S1. Participant flowchart.

Approximately 600 patients with the diagnosis Parkinson's disease were screened based on their health records

In accordance with the inclusion and exclusion criteria, approximately 150 Parkinson patients and 150 healthy controls were approached in person

41 Parkinson patients and 23 healthy controls were enrolled in the study

41 Parkinson patients and 23 healthy controls completed the standardized meal as well as the medical examination

All 64 participants were included in the primary regression analysis

Two outliers were identified (Cooks distance >4/n) and the final regression analysis was completed with 62 participants

| •Healthy controls (n=23) | •Early stage Parkinson patients (n=19) | •Advanced stage Parkinson patients (n=20) |