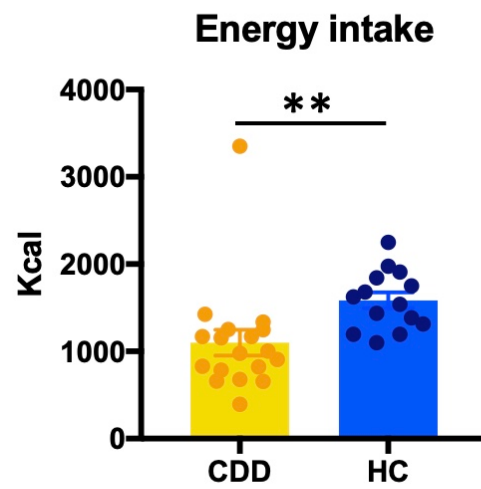


Table S1- Nutritional values of the enrolled subjects

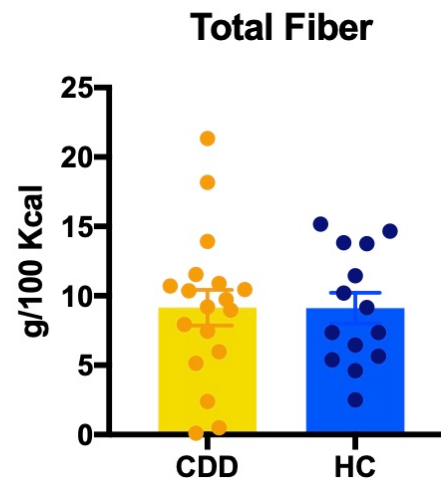
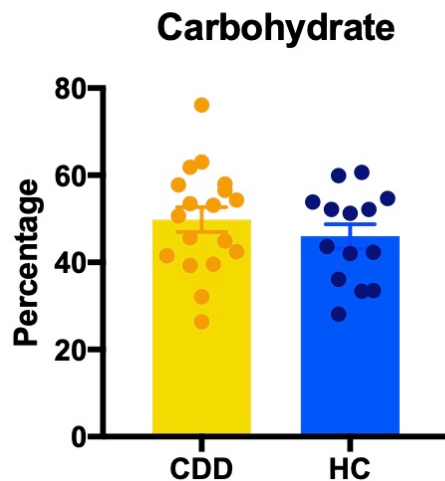
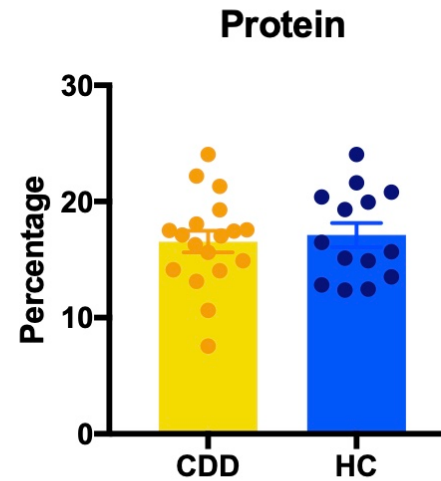
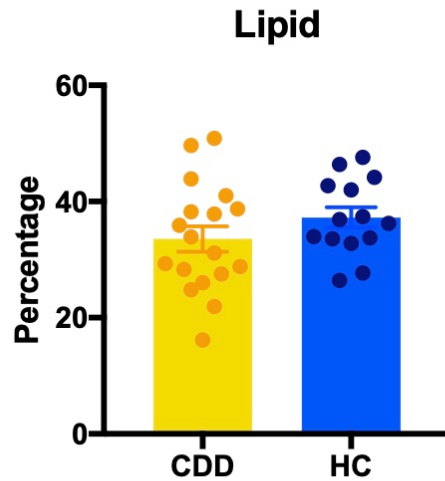
	CDD (mean $\pm$ SD)		HD (mean $\pm$ SD)		<i>p</i> -Value (CDD vs HC)		Reference Values (LARN)	
Variable	Children	Adults	Children	Adults	Children	Adults	Children	Adults
Energy (kcal)	1065.4 $\pm$ 682.4	1280.7 $\pm$ 107.0	1504.6 $\pm$ 405.5	1630.9 $\pm$ 275.3	0.02	0.10	750-1860 kcal/day	1240-1910 kcal/day
Proteins (g)	41.9 $\pm$ 14.3	54.8 $\pm$ 4.8	51.8 $\pm$ 18.8	74.8 $\pm$ 16.2	0.35	0.10	9-50 (g/day)*	43-50 (g/day)*
Proteins (%E)	16.5 $\pm$ 3.9	17.6 $\pm$ 0.4	13.7 $\pm$ 1.4	19.0 $\pm$ 3.4	0.12	0.48	0.72-0.82 (g/kg/day)*	0.71 %*
Total Carbohydrates (g)	155.1 $\pm$ 139.1	186.3 $\pm$ 21.7	205.8 $\pm$ 35.2	177.0 $\pm$ 53.4	0.01	0.73		
Total Carbohydrates (%E)	49.8 $\pm$ 12.0	56.0 $\pm$ 5.2	53.54 $\pm$ 6.8	41.8 $\pm$ 9.6	0.35	0.10	45%-60% E**	45%-60% E**
Sugars (g)	40.0 $\pm$ 17.5	50.4 $\pm$ 7.9	76.0 $\pm$ 21.0	54.1 $\pm$ 33.1	<0.01	0.86	<15% E	
Starch (g)	51.2 $\pm$ 82.1	47.0 $\pm$ 25.8	48.5 $\pm$ 16.0	60.0 $\pm$ 42.0	0.07	0.73		
Fiber (g)	12.7 $\pm$ 13.7	17.6 $\pm$ 5.0	13.0 $\pm$ 6.6	15.8 $\pm$ 8.6	0.21	0.86	8.4 g/1000 Kcal	12.6-16.7 g/1000 Kcal
Soluble Fiber (g)	1.2 $\pm$ 0.8	1.9 $\pm$ 0.6	1.5 $\pm$ 1.0	1.2 $\pm$ 0.9	0.44	0.21		
Insoluble Fiber (g)	2.9 $\pm$ 2.1	5.2 $\pm$ 2.3	4.2 $\pm$ 3.7	4.8 $\pm$ 4.5	0.49	0.73		
Fats (g)	37.3 $\pm$ 12.1	37.6 $\pm$ 6.1	43.2 $\pm$ 5.7	58.9 $\pm$ 15.5	0.31	0.04	20%-40% E**	20%-40% E**
Saturated Fats (g)	12.8 $\pm$ 6.2	10.5 $\pm$ 3.6	17.7 $\pm$ 4.0	22.5 $\pm$ 3.6	0.20	<0.01	<10% E	<10% E

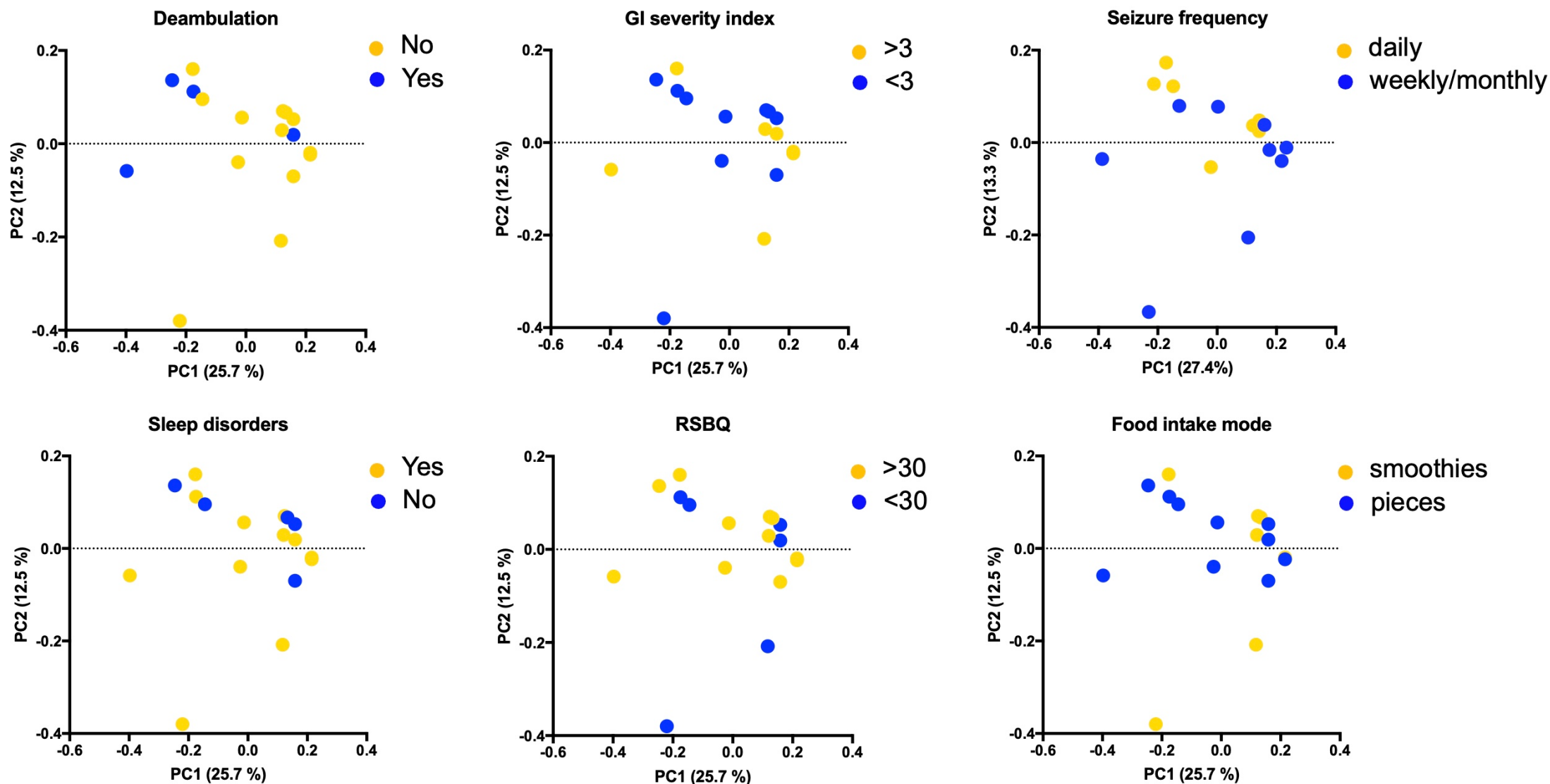
CDD, CDKL5-deficiency disorder; HC, healthy control; E, energy; *AR, Average Requirement; **RI, recommended intake.



Suppl. Fig. 1. Food diary analysis.

The energy intake quantified as Kcal consumed/day was significantly decreased in CDD patients with respect to HC (Unpaired t-test, **p=0.002). The percentage of lipid, protein, carbohydrate and fiber consumed/day were not different. Circles represent single subject. Error bars represent SEM





Suppl. Fig. 2. Beta-diversity in CDD patients. Patients were grouped based on deambulation capacity, GI severity index, the frequency of seizure episodes, the presence of sleep disorders, the score obtained in the RSBQ, and the mode of food intake. Principal coordinate analysis of Unweighted Unifrac Distances. Circles represent single subjects.