

Supplementary Tables and Figures.

Table S1. Participants during baseline measurement (relates to Figure 1)

	Male	Female	All
Number of subjects (n)	65	91	156
Age; years	26.4 (24.8-28.1)	28.4 (26.7-30.2)	27.6 (26.4-28.8)
Height; cm	177.1 (174.9-179.2)	163.5 (161.9-165)	169.1 (167.5-170.8)
Initial BMI (before baseline); kg/m ²	25.9 (24.69-27.11)	23.9 (22.86-24.95)	24.74 (23.94-25.53)
Final BMI (after baseline); kg.m ²	25.82 (24.6-27.04)	23.87 (22.81-24.92)	24.68 (23.88-25.49)
Change in BMI (after baseline); kg/m ²	-0.08	-0.04	-0.06
Paired t-test P-value	ns	ns	ns
Ethnicity [n (%)]			
Hispanic or Latino	3 (4.6)	12 (13.2)	15 (9.6)
Not Hispanic or Latino	62 (95.4)	79 (86.8)	141 (90.4)
Unknown	0 (0)	0 (0)	0 (0)
Race [n (%)]			
American Indian or Alaska Native	0 (0)	1 (1.1)	1 (0.6)
Asian	28 (43.1)	25 (27.5)	53 (34.0)
Native Hawaiian or Pacific Islander	0 (0)	0 (0)	0 (0)
Black or African American	1 (1.5)	2 (2.2)	3 (1.9)
White	27 (41.5)	41 (45.1)	68 (43.6)
More than 1 race	6 (9.2)	8 (8.8)	14 (9.0)
Unknown/Other	3 (4.6)	14 (15.4)	17 (10.9)

Table S1. Anthropometric composition of the subjects in the baseline study. Average and 95% confidence intervals for age, weight, and BMI are shown. Ethnicity and race composition of the cohort are shown as the number of subjects (n) and the percent of total in parentheses.

Table S2. Inclusion and Exclusion Criteria (relates to Figure 1)

Aged 18 years or above
 Not an employee of the Salk Institute.
 Non-smoker
 No previous diagnosis of Type I Diabetes
 No major immune disease, eating disorder or bile syndrome
 No infectious disease
 Female subjects should not be pregnant or nursing an infant
 No history of metabolic syndrome or cardiovascular disease
 Should own an iOS device capable of running the app
 No incident of major sickness in the prior two weeks
 Not enrolled in a weight-loss or weight-management program
 Not taking any medication that is meant for or has a known effect on appetite
 No psychiatric disorder and not on any anti-depressant medicine
 No planned travel outside of PST/PDT time zone for the study duration
 Not have participated in a clinical study in the last one year
 No surgical intervention for weight management

Table S3. Intervention results. (relates to Figure 5)

	Pre-intervention	Post intervention (16 wk)	1 yr follow up
Body weight (kg)	94.89 (5.781)	91.63 (6.491) *	91.93 (6.206) *
BMI (kg/m ²)	32.95 (1.848)	31.79 (2.105) *	31.83 (1.857) *
Excess body weight (kg)	22.71 (5.114)	19.45 (5.88) *	19.75 (5.185) *
Change in body weight (%)		3.855 (1.17)	3.421 (1.415)
On a scale of 1-10 (1=extremely lethargic, 10=extremely energetic), please rank how energetic are you right now?	5.75 (0.59)	7.25 (0.53) *	8 (0.42) *
On a scale of 1-10 (1=extremely lethargic, 10=extremely energetic), please rank how energetic are you overall?	6.75 (0.45)	7.375 (0.46) *	7.5 (0.33) *
How hungry do you feel when you go to bed? (1=extremely hungry, 10=extremely full)	6.375 (0.46)	5.125 (0.48) *	6 (0.38)
Do you feel you are getting enough sleep? (1=not at all enough, 10= enough)	5.625 (0.78)	7.125 (0.88) *	7.875 (0.81) *

Supplementary figure 1

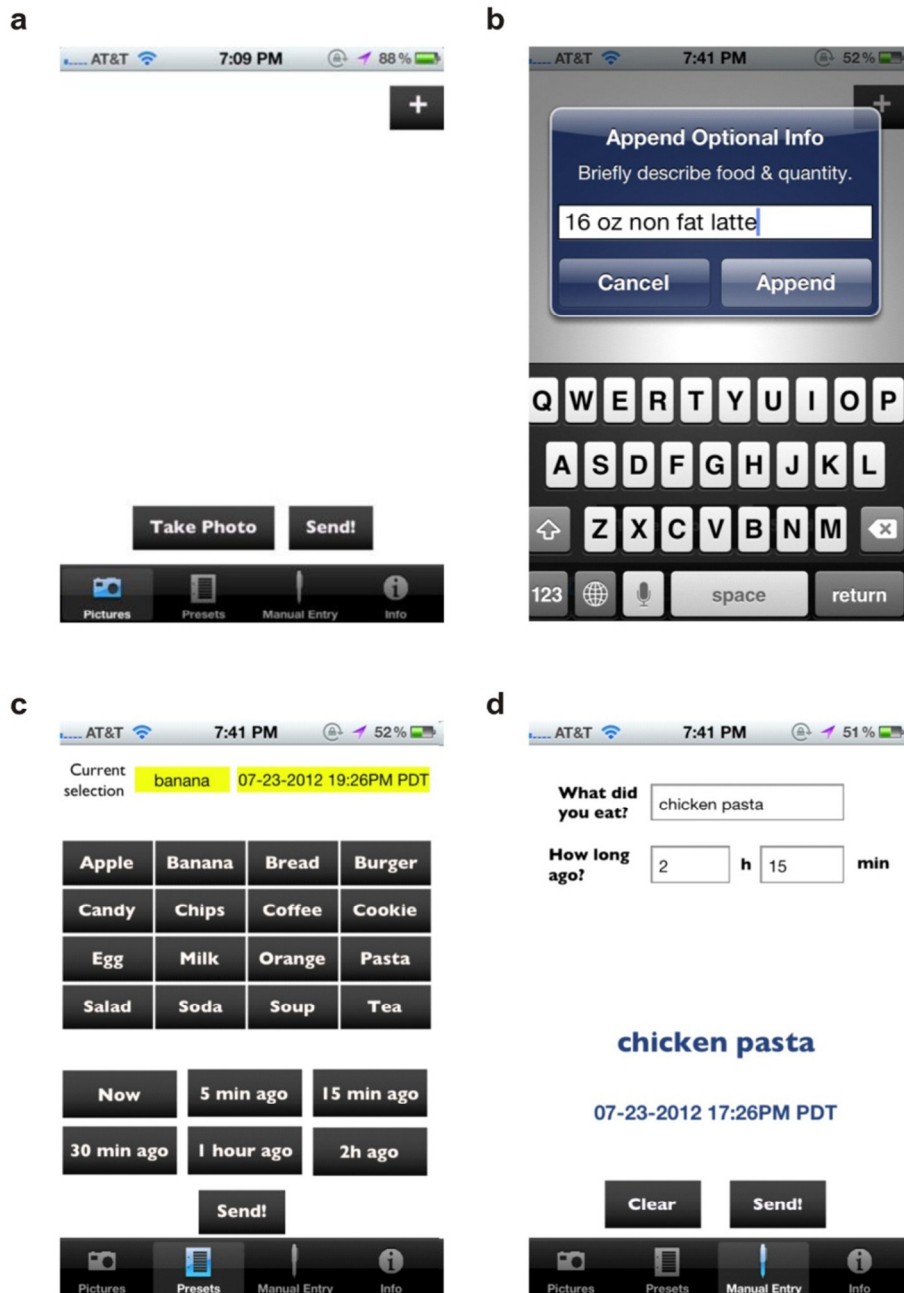


Figure S1. Screenshots of the smartphone application (app). Relates to Fig. 1.

Supplementary figure 2

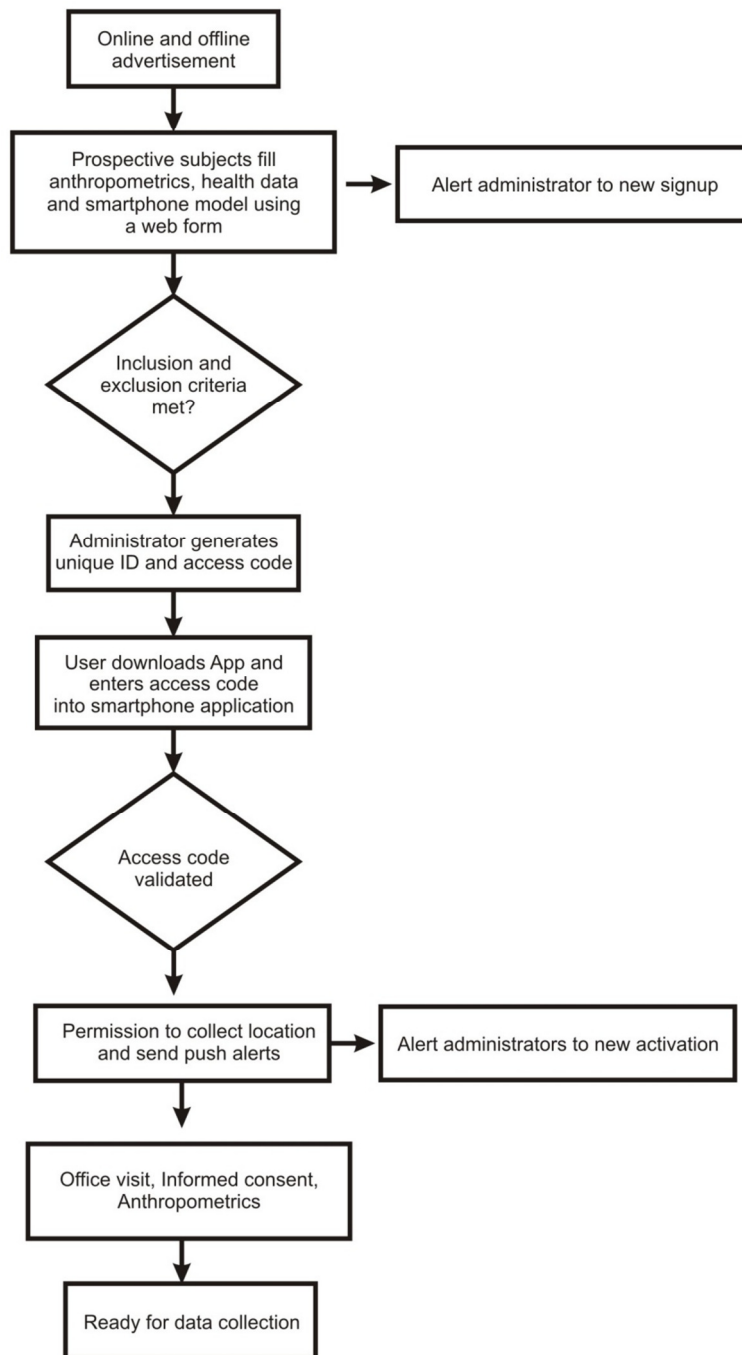


Figure S2. Subject recruitment and app activation flow chart. Relates to Fig. 1.

Supplementary figure 3

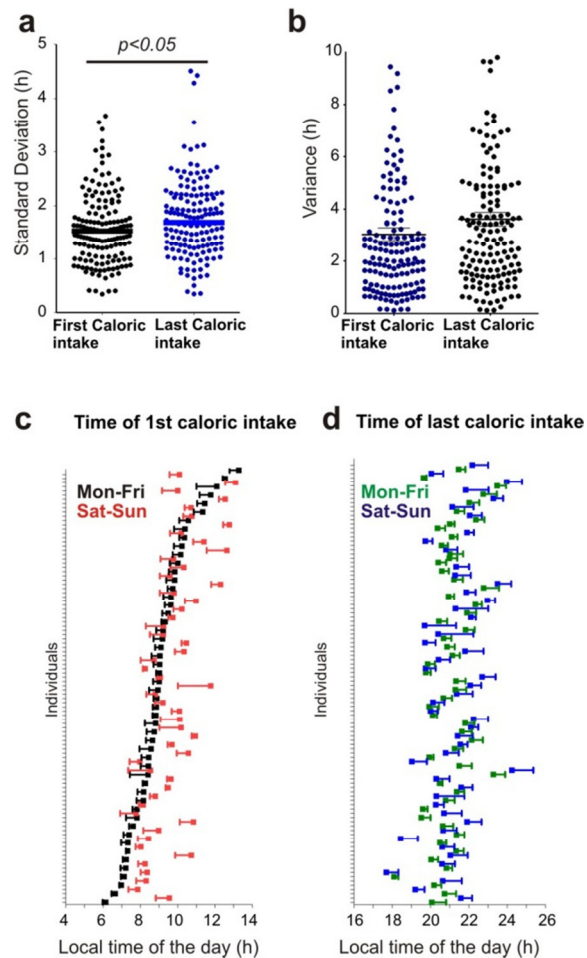
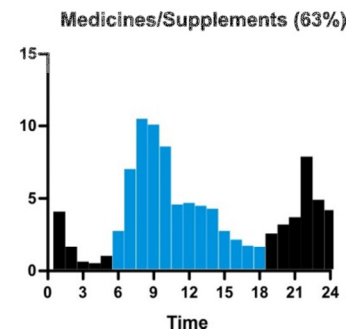
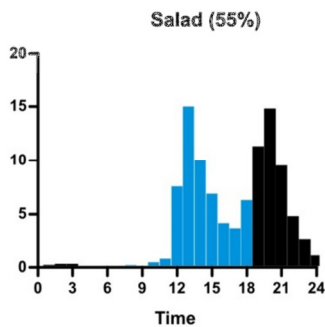
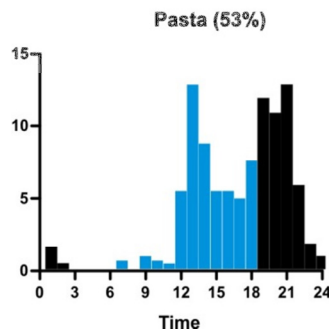
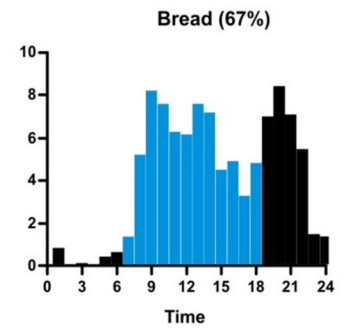
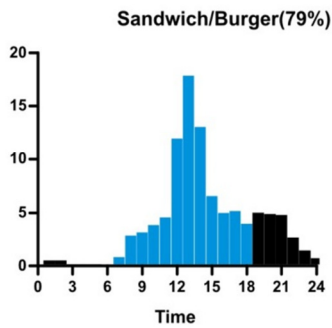
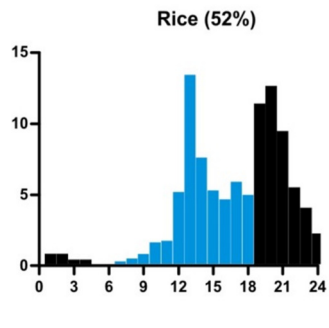
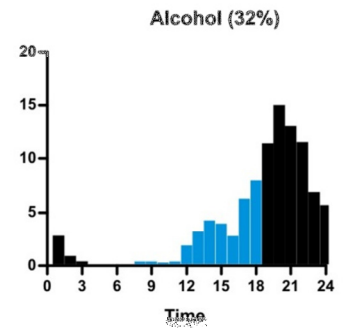
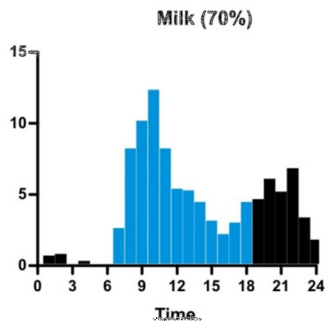
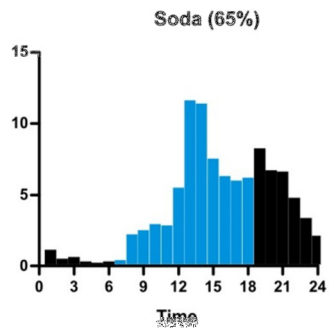
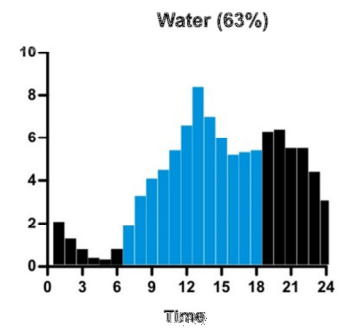
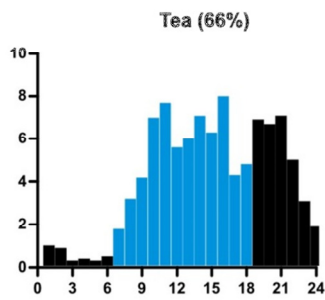
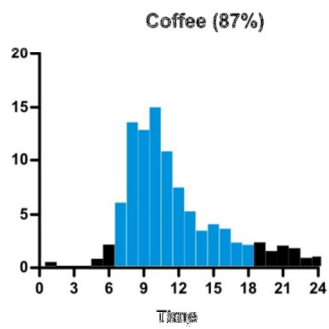


Figure S3. Variations in the first or last caloric intake. (a) Standard deviation and (b) variance of the first or last caloric event during the monitoring period of 156 participants shows the last caloric event is more variable than the first caloric intake event. Horizontal lines represent average values. The average time (\pm s.e.m.) of (c) first or (d) last caloric event during weekdays and weekends for a subset of participants. Participants in (c) are arranged in order of early (bottom) to late (top) first caloric intake time during the weekdays (black). Time of first caloric intake during weekends (red), and time of last caloric intake during weekdays (green) and in weekends (blue) for the respective subjects are shown along the horizontal line. (Relates to Fig.3).

Supplementary figure 4



Supplementary figure 4 contd.

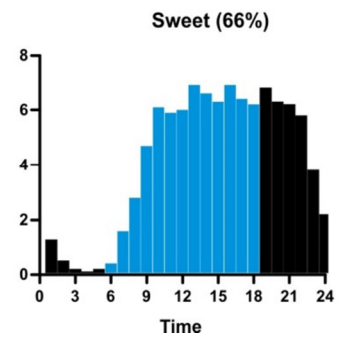
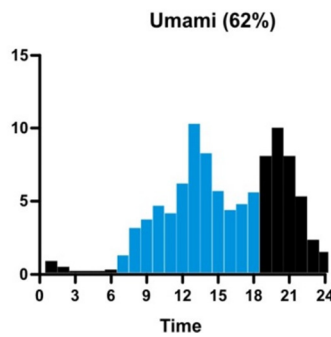
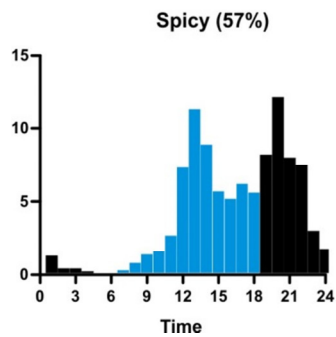
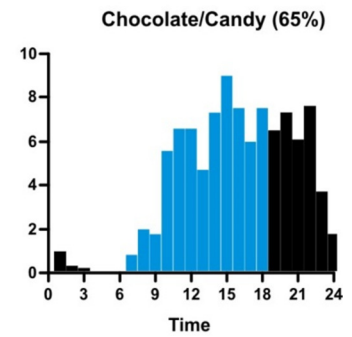
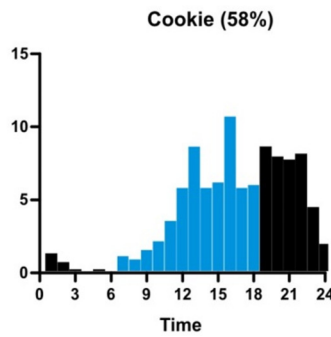
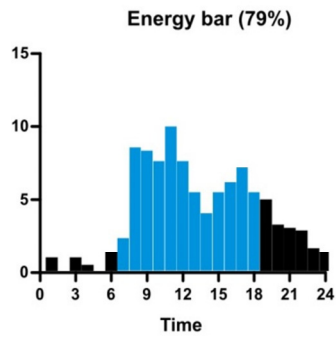
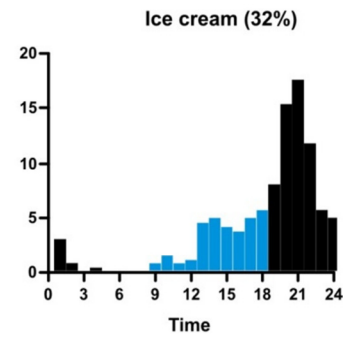
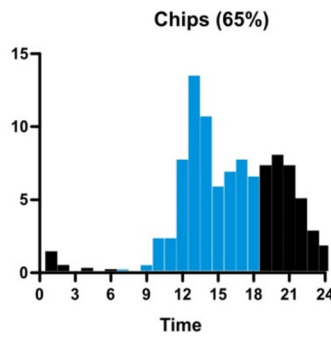
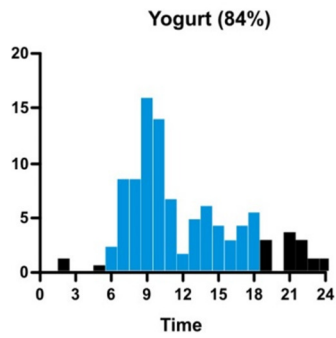
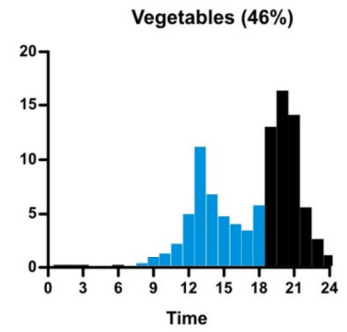
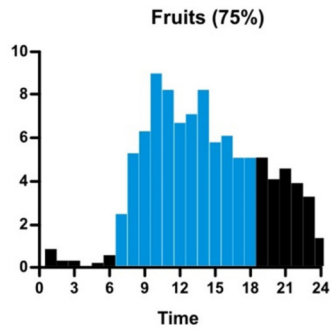
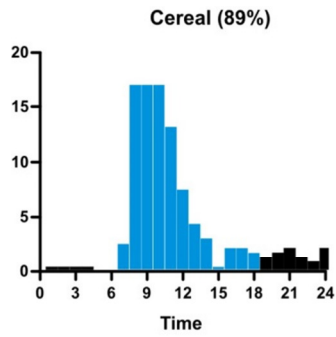


Figure S4. The daily pattern of intake for selected food items or, (last row) taste modality. Percentages of all events in 1 h bins containing food items that contained the named food are shown. Percentage of total events that occurred between 6am and 6pm are shown next to the food or category name. Relates to Figures 1-4.