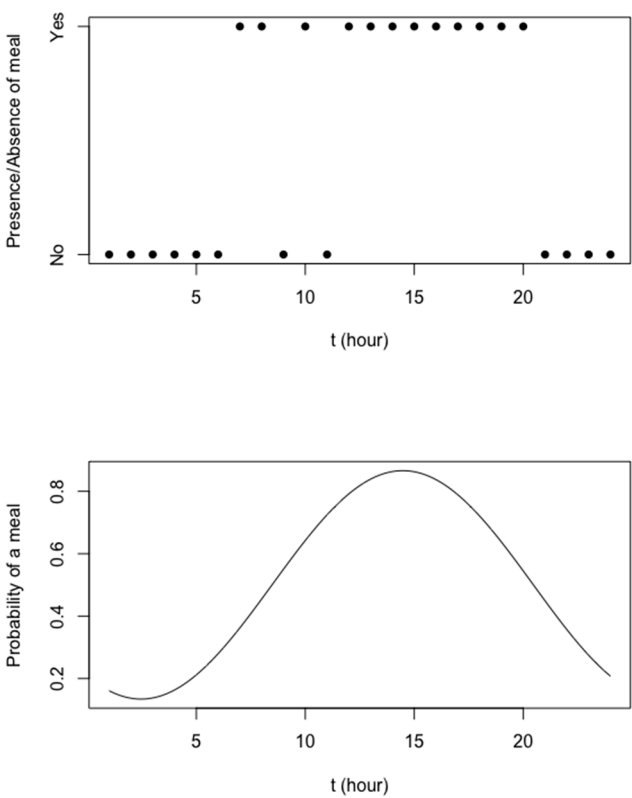


Supplementary materials

Figure S1. Example of chrono-nutritional time series for a patient (top) and estimated probability of a meal during the day (bottom)



**Table S1.** Main characteristics overall (N= 173) and according to the 4 estimated chrono-nutritional profile.

| <b>Characteristics</b>     | <b>Chrono-nutritional profiles</b> |                              |                              |                              | <b>p-value<sup>2</sup></b> |
|----------------------------|------------------------------------|------------------------------|------------------------------|------------------------------|----------------------------|
|                            | <b>1, N = 80<sup>1</sup></b>       | <b>2, N = 11<sup>1</sup></b> | <b>3, N = 55<sup>1</sup></b> | <b>4, N = 27<sup>1</sup></b> |                            |
| <b>Gender, Female</b>      | 24 (30%)                           | 2 (18%)                      | 24 (44%)                     | 6 (22%)                      | 0.15                       |
| <b>Age (years)</b>         | 45 (39, 53)                        | 49 (44, 53)                  | 48 (41, 56)                  | 48 (33, 53)                  | 0.27                       |
| <b>Educational level</b>   |                                    |                              |                              |                              | 0.71                       |
| Middle school              | 34 (43%)                           | 5 (45%)                      | 21 (38%)                     | 12 (44%)                     |                            |
| High school                | 34 (43%)                           | 6 (55%)                      | 26 (47%)                     | 9 (33%)                      |                            |
| Degree or higher           | 12 (15%)                           | 0 (0%)                       | 8 (15%)                      | 6 (22%)                      |                            |
| <b>Physical activity</b>   | 16 (20%)                           | 2 (18%)                      | 7 (13%)                      | 4 (15%)                      | 0.72                       |
| <b>Alcohol consumption</b> | 10 (13%)                           | 2 (18%)                      | 10 (18%)                     | 3 (11%)                      | 0.74                       |
| <b>Smoking habit</b>       | 18 (23%)                           | 5 (45%)                      | 8 (15%)                      | 2 (7.4%)                     | 0.038                      |
| <b>BMI category</b>        |                                    |                              |                              |                              | 0.45                       |
| [32.9,40.2]                | 32 (40%)                           | 1 (9.1%)                     | 16 (29%)                     | 9 (33%)                      |                            |
| (40.2,46.2]                | 22 (28%)                           | 5 (45%)                      | 20 (36%)                     | 10 (37%)                     |                            |
| (46.2,80.3]                | 26 (33%)                           | 5 (45%)                      | 19 (35%)                     | 8 (30%)                      |                            |
| <b>Shift work</b>          | 10 (13%)                           | 3 (27%)                      | 13 (24%)                     | 6 (22%)                      | 0.24                       |

<sup>1</sup> Median (IQR) or Frequency (%)

<sup>2</sup> Fisher's exact test; Kruskal-Wallis rank sum test

**Table S2.** Clinical outcome and psychological score according to the 4 estimated chrono-nutritional profiles.

| Characteristics       | Chrononutritional profiles |                        |                        |                        | p-value <sup>2</sup> |
|-----------------------|----------------------------|------------------------|------------------------|------------------------|----------------------|
|                       | 1, N = 80 <sup>1</sup>     | 2, N = 11 <sup>1</sup> | 3, N = 55 <sup>1</sup> | 4, N = 27 <sup>1</sup> |                      |
| <b>Hypertension</b>   | 33 (41%)                   | 5 (45%)                | 28 (51%)               | 10 (37%)               | 0.61                 |
| <b>Diabetes</b>       |                            |                        |                        |                        | 0.69                 |
| No                    | 36 (45%)                   | 2 (18%)                | 24 (44%)               | 10 (37%)               |                      |
| Pre-diabetes          | 30 (38%)                   | 6 (55%)                | 21 (38%)               | 13 (48%)               |                      |
| Yes                   | 14 (18%)                   | 3 (27%)                | 10 (18%)               | 4 (15%)                |                      |
| <b>Dyslipidemia</b>   | 46 (58%)                   | 4 (36%)                | 38 (69%)               | 13 (48%)               | 0.11                 |
| <b>Use of Statins</b> | 7 (8.8%)                   | 0 (0%)                 | 9 (16%)                | 2 (7.4%)               | 0.37                 |
| <b>CT (mmol/L)</b>    | 4.65 (4.06, 5.12)          | 4.86 (4.29, 5.59)      | 4.60 (4.03, 5.34)      | 4.43 (3.93, 5.00)      | 0.63                 |
| <b>HDL (mmol/L)</b>   | 1.17 (0.97, 1.37)          | 1.12 (1.08, 1.46)      | 1.16 (1.06, 1.40)      | 1.23 (1.00, 1.57)      | 0.89                 |
| <b>LDL (mmol/L)</b>   | 3.13 (2.62, 3.54)          | 3.22 (2.80, 3.57)      | 3.09 (2.42, 3.68)      | 2.85 (2.41, 3.35)      | 0.57                 |
| <b>TG (mmol/L)</b>    | 1.26 (0.91, 1.68)          | 1.28 (1.05, 2.34)      | 1.48 (1.12, 2.12)      | 1.07 (0.77, 1.54)      | 0.035                |
| <b>HOMA</b>           | 4.0 (2.3, 6.2)             | 4.1 (2.9, 9.7)         | 4.7 (1.9, 6.9)         | 3.0 (2.0, 4.6)         | 0.45                 |
| <b>SCL90-R_GSI</b>    | 58 (50, 67)                | 50 (45, 59)            | 70 (53, 83)            | 64 (51, 83)            | 0.001                |
| <b>SF-36 PH</b>       | 56 (39, 73)                | 58 (53, 69)            | 50 (27, 62)            | 46 (38, 68)            | 0.11                 |
| <b>SF-36 MH</b>       | 60 (46, 73)                | 59 (53, 77)            | 48 (36, 66)            | 56 (32, 68)            | 0.079                |
| <b>Y-FAS score</b>    | 2.00 (1.00, 3.00)          | 1.00 (1.00, 3.50)      | 3.00 (2.00, 4.00)      | 3.00 (1.50, 5.00)      | 0.010                |
| <b>EAT-26 score</b>   | 7 (3, 11)                  | 10 (1, 12)             | 9 (4, 15)              | 10 (7, 17)             | 0.094                |
| <b>BIS-11 score</b>   | 58 (52, 65)                | 56 (52, 62)            | 64 (55, 71)            | 62 (56, 67)            | 0.034                |
| <b>BES score</b>      | 10 (4, 16)                 | 8 (4, 15)              | 14 (9, 22)             | 18 (9, 24)             | 0.002                |

<sup>1</sup> Median (IQR) or Frequency (%)

<sup>2</sup> Fisher's exact test; Kruskal-Wallis rank sum test