**Supplementary materials**

Analyses comparing MDD with HC were performed on all usable EEG data.

Differences in HEP between MDD and HC were tested with Repeated-measures ANOVAs (RM ANOVAs) with within-subjects variable electrode Site (Fp1, Cz and Oz), and a between-subjects variable was Sex (female, male). Age was furthermore considered as a covariate with Group (MDD, HC) as factor.

MDD vs. HC

Differences between MDD and HC on the N8 peak were found using a RM ANOVA showing a significant between-subjects effect between MDD and HC (F(1,1007) = 5.016, *p* = .025). Univariate ANOVAs per site with covariate Age showed significant effects for all three sites, albeit with small effect sizes: Fp1 (F(1,1014) = 8.235, *p* = .004, *d* = -0.089), Cz (F(1,1014) = 4.142, *p* = .042, *d* = -0.128), and Oz (F(1,1014) = 5.948, *p* = .015, *d* = -0.169).

Table S1. Timing (ms from 0) and AUC values of the N8 and N270 peak.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | ms | AUC (µV2) | ms | AUC (µV2) |
| iSPOT-D | ICA-HEP | 8 | -0.981 | 270 | -0.267 |

Table S2. Overview of the most positive and most negative site, and a site topographically in between, for the N8 and N270 peak and their respective AUC values.

|  |  |  |
| --- | --- | --- |
|  | N8 | N270 |
|  | Site | AUC (µV2) | Site | AUC (µV2) |
| Most positive | Oz | 1,52 | T3 | 0,0455 |
| Most negative | Fp1 | -2,81 | FCz | -0,293 |
| In between | Cz | -1,34 | C3 | -0,527 |