

Supplementary Digital Content

Figure 1: Electroencephalogram reveals decrease of information content and break down of frontoparietal information flow during anesthesia. (A) Errorbar plot (mean \pm standard deviation) of the modulation of Permutation entropy in pooled electrodes. (B) Errorbar plot (mean \pm standard deviation) of the modulation of frontoparietal information flow by depth of anesthesia measured by Symbolic transfer entropy.

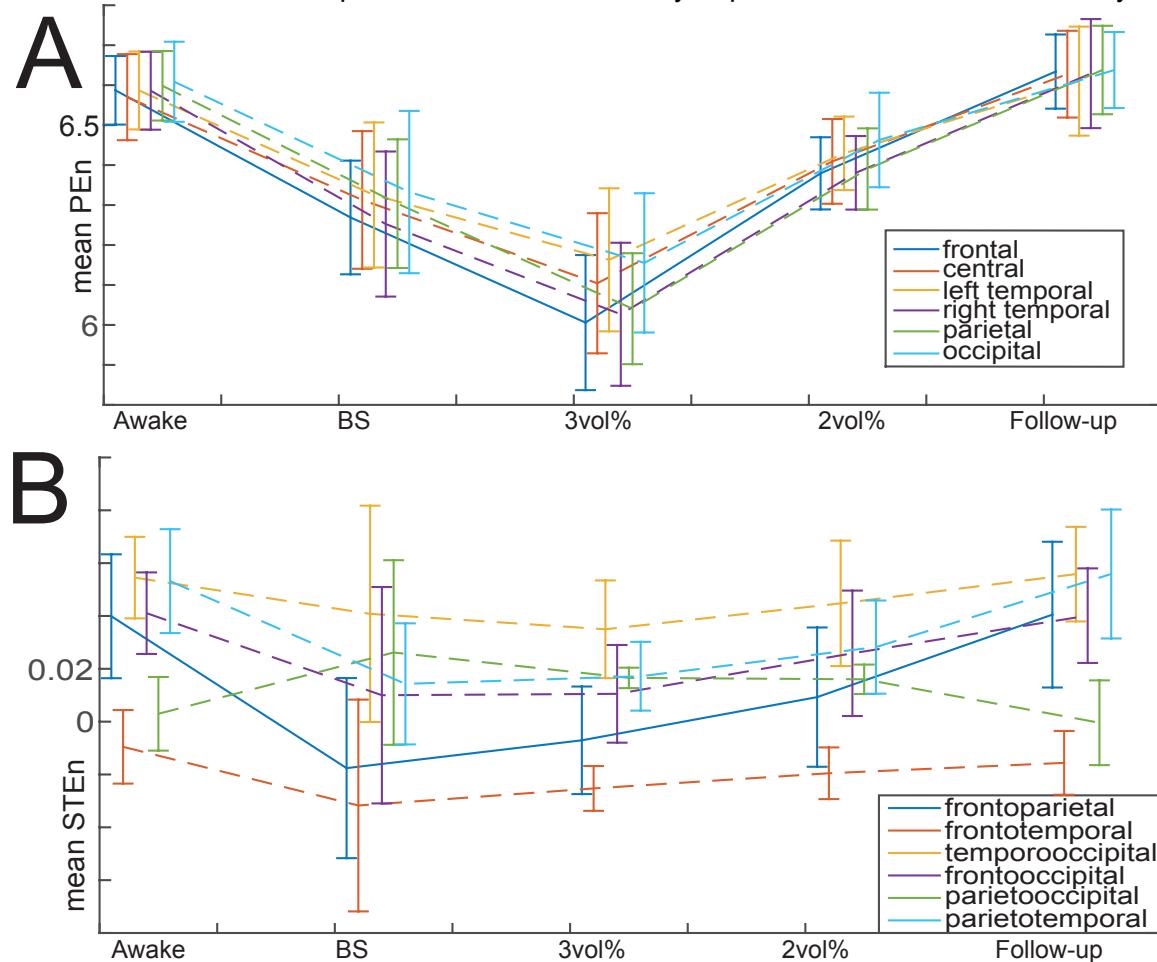
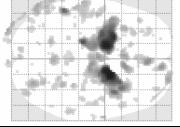
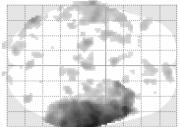
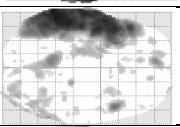
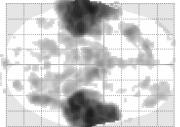
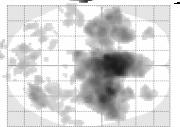
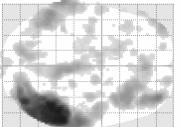
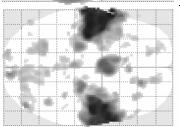
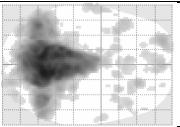
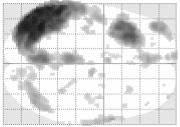


Table 1: ICA components with peak voxel, cluster size, p-values of paired t-tests between depths of anesthesia (two-sided, Bonferroni-corrected). Awake = awake, bs = burst suppression, 3vol% = 3 vol% sevoflurane, 2vol% = 2 vol% sevoflurane.

	8	Anterior part of the hippocampus	20 4 -20	1312	0.023	0.01	$5.36 \cdot 10^{-4}$	0.18
	23	Auditory network right	70 -16 0	10663	0.014	0.013	0.0019	0.3
	33	Auditory network left	-68 -50 10	15909	$4.2 \cdot 10^{-4}$	0.022	$7.35 \cdot 10^{-5}$	1
	58	Primary auditory network bilateral	56 -16 8	8413	$4.46 \cdot 10^{-5}$	1	0.38	0.67
	62	Salience network	2 10 58	18812	1	1	1	0.26
		Parietal Networks						
	18	fronto-parietal network right posterior	60 -44 42	6953	0.0038	1	1	1
	20	Primary motor network bilateral	-46 -14 30	8631	0.0086	0.0017	1	0.43
	37	Posterior default mode network	12 -60 24	23737	$2.30 \cdot 10^{-5}$	0.001	0.20	1
	42	Fronto-parietal network left posterior	-42 -64 56	9086	$1.44 \cdot 10^{-4}$	1	0.077	1

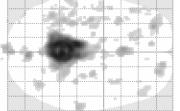
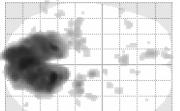
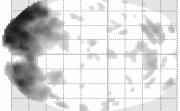
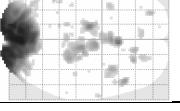
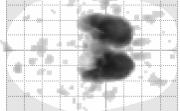
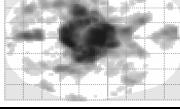
	56	Posterior cingulate cortex	4 -46 2	4980	0.33	0.97	0.64	1
		Occipital Networks						
	2	Cuneus	16 -52 8	17191	2.25×10^{-4}	0.0068	1	0.017
	22	V2	-42 -92 12	14903	0.006	0.21	1	1
	41	V1	4 -90 -8	8464	1.55×10^{-4}	1.55×10^{-5}	1	0.006
		Subcortical Networks						
	3	Basal Ganglia	20 0 0	12811	1	0.047	1.07×10^{-4}	1
	31	Bilateral thalamus	8 -38 6	16322	1.15×10^{-8}	1.16×10^{-5}	2.34×10^{-4}	0.69

Table 2: Top 5 decreased clusters (by peak T) during sevoflurane anesthesia when compared to the waking state (cluster-level statistics).

Burst suppression	p _{FWE}	k _E	p _{uncorr}	Peak coordinate (mm mm mm)	T
Cluster 1	0.000	208	0.000	50 -26 -52	6.39

Cluster 2	0.063	118	0.001	56 54 74	6.05
Cluster 3	0.006	184	0.000	64 -66 34	5.92
Cluster 4	0.105	105	0.001	-72 -28 -62	5.78
Cluster 5	0.021	147	0.000	-84 12 -32	5.76
BS<Awake	p_{FWE}	k_E	p_{uncorr}	Peak coordinate (mm mm mm)	T
Global cluster	0.000	60263	0.000	-2 -26 8	10.5
3vol<Awake	p_{FWE}	k_E	p_{uncorr}	Peak coordinate (mm mm mm)	T
Thalamus, Frontal & Cerebellum (same cluster)	0.000	43595	0.000	4 -32 6	7.9
2vol<Awake	p_{FWE}	k_E	p_{uncorr}	Peak coordinate (mm mm mm)	T
Thalamus & PCC (same cluster)	0.000	993	0.000	-4 -30 6	7.21
Frontal left	0.000	2464	0.000	-30 64 2	5.99
Frontal right	0.000	363	0.000	42 52 6	4.92
Ipsilateral intraparietal sulcus	0.000	935	0.000	-44 -52 36	4.83
Contralateral intraparietal sulcus	0.023	145	0.000	42 -48 40	4.55