

Supplemental Table S1. Statistical comparisons were by means of fisher-exact tests for equality of proportions.

<u>Characteristic</u>	<u>HIV-/METH-</u>	<u>HIV-/METH+</u>	<u>HIV+/METH-</u>	<u>HIV+/METH+</u>	<u>Statistic</u>
<u>Lifetime Psychiatric Histories (n)</u>					
Antisocial Personality Disorder					
1	10	3	3		FET, p<0.001
Attention-deficit/hyperactivity disorder	1	5	2	2	FET, p=0.13
5	9	10	11		FET, p=0.006
<u>Substance Use Histories (n)</u>					
Current Nicotine Use	9	11	7	6	FET, p=0.33
Alcohol (lifetime)	12	16	5	8	FET, p=0.002
Cannabis (lifetime)	7	11	4	4	FET, p=0.05
Cocaine (lifetime)	0	8	0	3	FET, p<0.001
Opiates (lifetime)	0	2	0	1	FET, p=0.11

Supplemental Information: Prior Methamphetamine Use Disorder History Does Not Impair Interoceptive Processing of Soft Touch in HIV Infection

Amanda Bischoff-Grethe, Ph.D., Ronald J. Ellis, M.D., Ph.D., Susan F. Tapert, Ph.D., Martin P. Paulus, M.D., Igor Grant, M.D., Translational Methamphetamine AIDS Research Center (TMARC)

Supplemental Table S2. Significant BOLD activation for the Location (Palm, Forearm) + HIV x METH x Condition (Anticipation, Receipt) linear mixed effects whole brain analysis.

Structure	Volume	X	Y	Z	F-value (peak)	<u>Post hoc comparisons</u>			
						Contrast	t ratio	p value	ES
MAIN EFFECT OF LOCATION									
R Postcentral Gyrus	15093	38	-20	48	72.79				
L Culmen	1323	-22	-48	-24	21.28				
MAIN EFFECT OF CONDITION									
L Thalamus	744984	-30	-2	-20	258.17	Touch > Anticipation	15.33	<.001	0.49
R Middle Temporal Gyrus	13581	54	-66	6	233.32	Touch > Anticipation	15.06	<.001	0.50
METH x CONDITION									
L Parahippocampal Gyrus	94878	-12	-42	-6	30.25	METH-: Touch > Anticipation	13.33	<.001	0.61
						METH+: Touch > Anticipation	5.02	<.001	0.27
						Touch: METH- > METH+	4.57	<.001	0.27
L Cingulate Gyrus	12312	-30	36	30	39.72	METH-: Touch > Anticipation	6.49	<.001	0.32
						Touch: METH- > METH+	4.16	<.001	0.26
L Medial Frontal Gyrus	6939	-10	-8	72	31.03	METH-: Touch > Anticipation	4.30	<.001	0.23
						Touch: METH- > METH+	3.63	0.001	0.29
R Insula	2646	32	22	-6	26.53	METH-: Touch > Anticipation	11.11	<.001	0.62
						METH+: Touch > Anticipation	4.21	<.001	0.27
						Touch: METH- > METH+	3.44	0.001	0.22
R Precuneus	1647	6	-72	18	24.88	METH-: Touch > Anticipation	6.90	<.001	0.29
						Touch: METH- > METH+	3.40	0.002	0.24
R Middle Frontal Gyrus	1215	42	46	22	24.66	METH+: Anticipation > Touch	3.07	0.01	0.20
						Touch: METH- > METH+	2.43	0.04	0.25
L Middle Frontal Gyrus	1107	-34	-2	60	24.96	METH-: Touch > Anticipation	2.93	0.01	0.15
						Touch: METH- > METH+	2.83	0.01	0.19
R Middle Frontal Gyrus	999	30	10	46	17.65	Touch: METH- > METH+	3.06	0.01	0.19
R Cingulate Gyrus	945	8	-32	42	24.66	METH-: Touch > Anticipation	8.98	<.001	0.44
						METH+: Touch > Anticipation	2.44	0.02	0.14
						Touch: METH- > METH+	3.52	0.001	0.21
L Insula	891	-28	24	12	18.06	METH-: Touch > Anticipation	8.30	<.001	0.39

L Hypothalamus	810	-4	-6	-14	23.07	METH+: Touch > Anticipation	3.11	0.004	0.17
						METH-: Touch > Anticipation	12.92	<.001	0.79
						METH+: Touch > Anticipation	5.57	<.001	0.40
						Anticipation: METH+ > METH-	2.24	0.03	0.19
						Touch: METH- > METH+	2.40	0.03	0.21
L Superior Frontal Gyrus	702	6	-6	60	19.42	n.s.			
R Inferior Frontal Gyrus	486	50	12	24	20.86	METH-: Touch > Anticipation	3.37	0.004	0.18
L Insula	459	-30	16	-8	17.89	METH-: Touch > Anticipation	10.97	<.001	0.55
L Insula	459	-36	22	6	16.27	METH+: Touch > Anticipation	5.77	<.001	0.33
R Superior Temporal Gyrus	459	60	-6	10	22.18	METH-: Touch > Anticipation	10.64	<.001	0.61
						METH+: Touch > Anticipation	6.41	<.001	0.42
						METH-: Touch > Anticipation	9.38	<.001	0.55
						Touch: METH- > METH+	2.37	0.02	0.16
L Cuneus	459	-10	-92	28	21.28	n.s.			
L Middle Temporal Gyrus	432	-46	-8	-18	18.8	METH-: Touch > Anticipation	9.19	<.001	0.54
L Insula	432	-40	12	16	27.94	METH+: Touch > Anticipation	4.43	<.001	0.30
R Middle Frontal Gyrus	432	20	-14	58	19.99	METH-: Touch > Anticipation	11.80	<.001	0.57
L Superior Temporal Gyrus	405	-54	-36	10	19.96	METH+: Touch > Anticipation	5.58	<.001	0.31
R Parahippocampal Gyrus	378	14	-2	-12	23.84	Anticipation: METH+ > METH-	2.96	0.005	0.16
						METH+: Anticipation > Touch	3.22	0.003	0.14
						Touch: METH- > METH+	3.56	0.003	0.19
R Superior Frontal Gyrus	378	18	-12	72	27.13	METH-: Touch > Anticipation	7.73	<.001	0.33
R Superior Temporal Gyrus	351	54	-56	18	17.08	METH+: Touch > Anticipation	4.02	<.001	0.20
						METH-: Touch > Anticipation	12.49	<.001	0.85
						METH+: Touch > Anticipation	2.59	0.01	0.20
						Touch: METH- > METH+	5.24	<.001	0.47
						METH+: Anticipation > Touch	4.24	<.001	0.35
						Touch: METH- > METH+	2.84	0.01	0.27
R Postcentral Gyrus	351	54	-14	18	22.80	METH-: Touch > Anticipation	3.21	0.003	0.14
						METH+: Touch > Anticipation	9.91	<.001	0.52
						Touch: METH+ > METH-	2.81	0.008	0.26
L Cingulate Gyrus	324	-16	12	28	17.23	METH-: Touch > Anticipation	13.24	<.001	0.58
						METH+: Touch > Anticipation	7.91	<.001	0.40
						Touch: METH- > METH+	2.58	0.02	0.21
						METH-: Touch > Anticipation	9.17	<.001	0.51

						METH+: Touch > Anticipation	3.71	0.001	0.24
						Touch: METH- > METH+	3.28	0.002	0.20
R Middle Frontal Gyrus	324	44	-2	52	20.82	METH+: Anticipation > Touch	4.05	<.001	0.24
R Middle Frontal Gyrus	324	20	-2	54	20.31	METH-: Touch > Anticipation	3.22	0.006	0.13
						Touch: METH- > METH+	3.06	0.006	0.17
HIV x METH x CONDITION									
L Cuneus	9774	-4	-86	16	30.84	HIV-, Touch: METH- > METH+	4.65	<.001	0.39
						HIV-, METH-: Touch > Anticipation	8.77	<.001	0.45
						HIV+, METH-: Touch > Anticipation	4.20	<.001	0.26
						HIV+, METH+: Touch > Anticipation	7.55	<.001	0.52
						METH+, Touch: HIV+ > HIV-	4.29	<.001	0.41
L Superior Temporal Gyrus	3321	-52	-44	12	29.34	HIV-, Touch: METH- > METH+	2.59	0.02	0.25
						HIV+, Touch: METH+ > METH-	3.80	<.001	0.41
						HIV-, METH-: Touch > Anticipation	8.23	<.001	0.45
						HIV+, METH-: Touch > Anticipation	3.92	<.001	0.25
						HIV+, METH+: Touch > Anticipation	10.55	<.001	0.76
						METH+, Touch: HIV+ > HIV-	4.94	<.001	0.54
R Cingulate Gyrus	2322	6	16	40	26.7	HIV-, Touch: METH- > METH+	4.47	<.001	0.37
						HIV+, Touch: METH+ > METH-	2.39	0.04	0.22
						HIV-, METH-: Touch > Anticipation	5.70	<.001	0.37
						HIV+, METH+: Touch > Anticipation	4.72	<.001	0.41
						METH+, Anticipation: HIV- > HIV+	2.27	0.04	0.22
						METH-, Touch: HIV- > HIV+	2.98	0.009	0.25
						METH+, Touch: HIV+ > HIV-	3.70	0.001	0.35
L Inferior Parietal Lobule	1863	-40	-56	48	24.48	HIV-, Touch: METH- > METH+	3.53	0.003	0.30
						HIV-, METH-: Touch > Anticipation	4.84	<.001	0.27
						HIV-, METH+: Anticipation > Touch	2.35	0.05	0.16
						HIV+, METH+: Touch > Anticipation	4.70	<.001	0.35
						METH+, Touch: HIV+ > HIV-	3.39	0.003	0.16
L Middle Frontal Gyrus	1809	-30	36	30	28.49	HIV-, Touch: METH- > METH+	5.20	<.001	0.44
						HIV+, Touch: METH+ > METH-	2.35	0.04	0.22
						HIV-, METH-: Touch > Anticipation	6.57	<.001	0.39
						HIV+, METH+: Touch > Anticipation	5.67	<.001	0.44
						METH-, Touch: HIV- > HIV+	2.38	0.04	0.20
						METH+, Touch: HIV+ > HIV-	4.83	<.001	0.47

R Cuneus	1053	12	-90	6	21.4	HIV+, Touch: METH+ > METH- HIV-, METH+: Anticipation > Touch HIV+, METH+: Touch > Anticipation METH+, Touch: HIV+ > HIV-	2.73	0.02	0.33
L Fusiform Gyrus	918	-42	-56	-6	24.15	HIV-, Anticipation: METH+ > METH- HIV-, Touch: METH- > METH+ HIV-, METH-: Touch > Anticipation HIV+, METH-: Touch > Anticipation HIV+, METH+: Touch > Anticipation METH+, Anticipation: HIV- > HIV+ METH+, Touch: HIV+ > HIV- HIV-, Touch: METH- > METH+ HIV-, METH-: Touch > Anticipation HIV+, METH-: Touch > Anticipation HIV+, METH+: Touch > Anticipation	2.83	0.01	0.26
L Culmen	783	-6	-36	-24	18.86	METH+, Anticipation: HIV- > HIV+ METH+, Touch: HIV+ > HIV- HIV-, Touch: METH- > METH+ HIV-, METH-: Touch > Anticipation HIV+, METH-: Touch > Anticipation HIV+, METH+: Touch > Anticipation n.s.	5.92	<.001	0.60
R Posterior Cingulate	702	18	-66	6	22.01	HIV-, Touch: METH- > METH+ HIV-, METH-: Touch > Anticipation HIV+, METH+: Touch > Anticipation	7.90	<.001	0.65
L Medial Frontal Gyrus	702	0	-12	76	25.34	5.73	<.001	0.32	
L Precentral Gyrus	621	-48	10	0	21.74	HIV+, METH-: Touch > Anticipation HIV-, METH-: Touch > Anticipation HIV-, METH+: Touch > Anticipation HIV+, METH+: Touch > Anticipation METH+, Anticipation: HIV- > HIV+ METH+, Touch: HIV+ > HIV- HIV-, Touch: METH- > METH+ HIV-, METH-: Touch > Anticipation HIV+, METH-: Touch > Anticipation HIV-, METH+: Touch > Anticipation HIV+, METH+: Touch > Anticipation METH+, Anticipation: HIV- > HIV+ METH+, Touch: HIV+ > HIV- HIV-, Touch: METH- > METH+ HIV+, Touch: METH+ > METH- HIV-, METH-: Touch > Anticipation HIV+, METH-: Touch > Anticipation HIV-, METH+: Touch > Anticipation HIV+, METH+: Touch > Anticipation METH+, Touch: HIV+ > HIV- HIV-, Touch: METH- > METH+ HIV-, METH-: Touch > Anticipation	5.11	<.001	0.38
R Postcentral Gyrus	594	60	-18	16	19.33	0.00			
L Declive	567	-22	-60	-18	20.78	5.57	<.001	0.61	
						4.16	<.001	0.48	
						3.26	0.007	0.35	
						5.73	<.001	0.32	
						5.11	<.001	0.38	
						n.s.			
						3.14	0.007	0.28	
						9.61	<.001	0.63	
						5.52	<.001	0.43	
						2.46	0.02	0.20	
						8.74	<.001	0.76	
						2.96	0.01	0.30	
						2.61	0.02	0.26	
						4.00	<.001	0.46	
						2.91	0.009	0.37	
						8.70	<.001	0.60	
						6.10	<.001	0.49	
						2.71	0.01	0.23	
						10.34	<.001	0.94	
						5.27	<.001	0.69	
						3.38	0.003	0.35	
						9.59	<.001	0.63	

L Middle Temporal Gyrus	540	-46	-18	-14	17.5	HIV+, METH-: Touch > Anticipation	6.83	<.001	0.53
						HIV+, METH+: Touch > Anticipation	8.01	<.001	0.69
						METH+, Anticipation: HIV- > HIV+	2.74	0.02	0.33
						METH+, Touch: HIV+ > HIV-	2.49	0.03	0.30
L Postcentral Gyrus	513	-48	-30	34	21.28	HIV-, Anticipation: METH+ > METH-	3.20	0.005	0.29
						HIV-, Touch: METH- > METH+	2.28	0.04	0.20
						HIV-, METH-: Touch > Anticipation	8.37	<.001	0.56
						HIV+, METH-: Touch > Anticipation	4.08	<.001	0.32
						HIV+, METH+: Touch > Anticipation	7.90	<.001	0.69
						METH+, Anticipation: HIV- > HIV+	2.81	0.01	0.41
						METH+, Touch: HIV+ > HIV-	3.34	0.004	0.34
R Medial Frontal Gyrus	486	26	48	16	15.52	HIV-, Touch: METH- > METH+	2.97	0.009	0.25
						HIV-, METH-: Touch > Anticipation	7.06	<.001	0.37
						HIV+, METH-: Touch > Anticipation	4.54	<.001	0.28
						HIV+, METH+: Touch > Anticipation	7.44	<.001	0.52
						METH+, Touch: HIV+ > HIV-	3.37	0.004	0.32
R Parahippocampal Gyrus	405	8	-44	-2	26.12	HIV-, Touch: METH- > METH+	3.03	0.01	0.23
						HIV-, METH-: Touch > Anticipation	5.72	<.001	0.35
						HIV+, METH-: Touch > Anticipation	4.39	<.001	0.36
						METH-, Touch: HIV- > HIV+	2.88	0.02	0.21
						HIV-, Touch: METH- > METH+	4.77	<.001	0.54
R Precentral Gyrus	351	56	6	12	22.00	HIV-, METH-: Touch > Anticipation	6.53	<.001	0.46
						HIV+, METH-: Touch > Anticipation	2.57	0.03	0.22
						HIV+, METH+: Touch > Anticipation	5.60	<.001	0.53
						METH+, Touch: HIV+ > HIV-	3.74	0.001	0.49
R Supramarginal Gyrus	351	44	-48	34	20.63	HIV-, Touch: METH- > METH+	3.34	0.004	0.32
						HIV-, METH-: Touch > Anticipation	6.07	<.001	0.34
						HIV+, METH+: Touch > Anticipation	4.83	<.001	0.36
						METH+, Touch: HIV+ > HIV-	3.35	0.004	0.37
L Insula	324	-36	0	16	19.25	HIV+, Touch: METH+ > METH-	3.50	0.005	0.32
						HIV-, METH-: Touch > Anticipation	2.97	0.01	0.16
						HIV+, METH+: Touch > Anticipation	5.11	<.001	0.38
						METH-, Touch: HIV- > HIV+	2.62	0.03	0.21
						METH+, Touch: HIV+ > HIV-	2.95	0.01	0.27
						HIV-, Anticipation: METH+ > METH-	3.09	0.005	0.24
						HIV-, Touch: METH- > METH+	3.59	0.001	0.28

						HIV-, METH-: Touch > Anticipation	10.58	<.001	0.71
						HIV+, METH-: Touch > Anticipation	7.98	<.001	0.63
						HIV-, METH+: Touch > Anticipation	2.30	0.03	0.19
						HIV+, METH+: Touch > Anticipation	9.22	<.001	0.82
						METH+, Anticipation: HIV- > HIV+	3.16	0.004	0.28
						METH+, Touch: HIV+ > HIV-	3.90	0.001	0.35
L Inferior Parietal Lobule	324	-42	-36	34	15.47	HIV-, Anticipation: METH+ > METH-	2.79	0.01	0.18
						HIV-, Touch: METH- > METH+	3.02	0.008	0.20
						HIV-, METH-: Touch > Anticipation	10.10	<.001	0.47
						HIV+, METH-: Touch > Anticipation	6.05	<.001	0.34
						HIV+, METH+: Touch > Anticipation	7.47	<.001	0.46
						METH+, Anticipation: HIV- > HIV+	3.22	0.006	0.24

Note: Center of mass coordinates reported in MNI space. Small volume correction was determined with Monte-Carlo simulations (via AFNI's 3dClustSim) to guard against false positives. ES: standardized effect size; L: left; R: right.
