

**Supplemental Table 1. Regional Brain Volumes**

Not adjusted for ICV. Adjusting for ICV, all tests remained non-significant.

Volume (mm <sup>3</sup> )	Control (n=26)		High Risk (n=26)		F-Test for difference		
	LS mean	SE	LS mean	SE	F-value	DF	P value
<b>Prefrontal GM</b>	29,843	1196	30,539	1196	0.299	1,25	0.5893
<b>Prefrontal WM</b>	25,324	773	24,981	773	0.095	1,25	0.7608
<b>Frontal GM</b>	45,188	1289	46,512	1289	1.262	1,25	0.2719
<b>Frontal WM</b>	37,916	994	38,750	994	0.516	1,25	0.4793
<b>Parietal GM</b>	61,639	1729	64,180	1729	2.647	1,25	0.1163
<b>Parietal WM</b>	49,215	1378	50,721	1378	1.749	1,25	0.1980
<b>Occipital GM</b>	69,487	2406	71,263	2406	0.694	1,25	0.4126
<b>Occipital WM</b>	41,863	1356	42,734	1356	0.402	1,25	0.5318

Abbreviations: GM: gray matter, WM: white matter.

**Supplemental Table 2. Neonatal Brain Volumes by Gender – Adjusted for ICV**

	Males				F-Test for difference		
Volume (mm <sup>3</sup> )	Control (n=12)		High Risk (n=12)				
	LS mean	SE	LS mean	SE	F-value	DF	P value
<b>Total GM</b>	271,096	4,389	268,484	4,389	0.367	1,10	0.5602
<b>Total umWM</b>	169,727	4,635	170,703	4,635	0.032	1,10	0.8622
<b>Total mWM</b>	9,036	1,287	8,994	1,287	0.001	1,10	0.9797
<b>Total CSF</b>	64,991	2,496	68,035	2,496	0.860	1,10	0.3712
<b>Lateral Ventricle</b>	4,538	384	4,986	384	0.933	1,10	0.3524
<b>Cortical GM</b>	224,511	2,990	221,822	2,990	0.789	1,10	0.3952
<b>Cortical WM</b>	165,213	2,684	162,492	2,684	0.494	1,10	0.4897
<b>Cerebellum</b>	28,052	1,142	26,968	1,142	0.741	1,10	0.4063
	Females				F-Test for difference		
	Control (n=14)		High Risk (n=14)				
	LS mean	SE	LS mean	SE	F-value	DF	P value
<b>Total GM</b>	239,984	2,076	238,592	2,076	0.405	1,12	0.5357
<b>Total umWM</b>	159,682	1,244	158,545	1,244	0.656	1,12	0.4332
<b>Total mWM</b>	9,570	1,258	10,179	1,258	0.158	1,12	0.6975
<b>Total CSF</b>	57,867	2,252	59,783	2,252	0.616	1,12	0.4469
<b>Lateral Ventricle</b>	4,098	404	4,116	404	0.002	1,12	0.9680
<b>Cortical GM</b>	198,285	2,056	196,639	2,056	0.482	1,12	0.5002
<b>Cortical WM</b>	149,599	1,293	148,018	1,293	1.163	1,12	0.3008
<b>Cerebellum</b>	24,208	752	23,938	752	0.130	1,12	0.7249

Abbreviations: ICV: intracranial volume; GM: gray matter; umWM: unmyelinated white matter; mWM: myelinated white matter.