

**Supplement Table S1**

GAMM estimates of percent spatial overlap for manual segmentation for bilateral amygdala across volBrain, CS-FS, LG-FS and FSL methods (CJV and SNR included as covariates).

Amygdala measure method	Hemisphere	$R^2$ (adjusted)	CJR				SNR				Volume spline			
			Estimate	SE	t	p-value	Estimate	SE	t	P-value	edf	Red.df	F	p-value
volBrain	Left amygdala	0.04	-19.21	11.02	-1.74	0.082	0.51	0.25	2.01	<b>0.046</b>	3.72	3.72	10.77	<b>0.000</b>
	Right amygdala	0.06	-21.37	11.94	-1.79	0.074	0.24	0.27	0.87	0.383	3.36	3.36	7.98	<b>0.000</b>
CS-FS	Left amygdala	0.02	-29.89	10.39	-2.88	<b>0.004</b>	0.18	0.22	0.80	0.423	1.00	1.00	9.09	<b>0.003</b>
	Right amygdala	0.09	-33.69	9.32	-3.61	<b>0.000</b>	0.43	0.20	2.15	<b>0.032</b>	3.06	3.06	8.12	<b>0.000</b>
LG-FS	Left amygdala	0.07	-14.24	9.50	-1.50	0.134	0.63	0.21	3.01	<b>0.003</b>	1.72	1.72	28.31	<b>0.000</b>
	Right amygdala	0.08	-18.60	12.62	-1.47	0.141	0.77	0.26	2.92	<b>0.004</b>	2.56	2.56	7.71	<b>0.000</b>
FSL	Left amygdala	0.05	-5.58	11.56	-0.48	0.629	0.19	0.27	0.72	0.474	3.26	3.26	7.10	<b>0.000</b>
	Right amygdala	0.02	-0.09	14.32	-0.01	0.995	0.15	0.34	0.43	0.666	2.26	2.26	1.85	0.157

Smooth function (edf) as well as degrees of freedom (Ref.df) and *F*-statistic and associated *p*-value (bold highlights  $p < .05$ ) for age.

**Supplement Table S2**

GAMM estimates for bilateral amygdala volume across both sexes in manual tracing, volBrain, CS-FS, LG-FS and FSL segmentation separately, including a linear growth model of GMV.

GMV measure method	Amygdala measure method	Hemisphere	Best model fit	R <sup>2</sup> (adjusted)	GMV				Sex				Age spline			
					Estimate	SE	t	P-value	Estimate	SE	t	P-value	edf	Red.df	F	P-value
volBrain	Manual	Left amygdala	GMV + age	0.25	0.00	0.00	9.10	<b>0.000</b>					1.00	1.00	25.74	<b>0.000</b>
		Right amygdala	GMV + age	0.25	0.00	0.00	9.15	<b>0.000</b>					1.00	1.00	30.45	<b>0.000</b>
	volBrain	Left amygdala	GMV + age	0.30	0.00	0.00	10.87	<b>0.000</b>					1.90	1.90	19.45	<b>0.000</b>
		Right amygdala	GMV + age	0.32	0.00	0.00	11.28	<b>0.000</b>					1.00	1.00	41.46	<b>0.000</b>
FreeSurfer	Manual	Left amygdala	GMV + age	0.24	0.00	0.00	9.11	<b>0.000</b>					2.17	2.17	13.91	<b>0.000</b>
		Right amygdala	GMV + age	0.25	0.00	0.00	9.27	<b>0.000</b>					1.41	1.41	22.98	<b>0.000</b>
	FreeSurfer	Left amygdala	GMV + age	0.36	0.00	0.00	12.90	<b>0.000</b>					1.40	1.40	18.95	<b>0.000</b>
		Right amygdala	GMV + sex + age	0.42	0.00	0.00	10.54	<b>0.000</b>	0.09	0.03	3.28	<b>0.001</b>	1.89	1.89	14.39	<b>0.000</b>
LP-FS	Manual	Left amygdala	GMV + sex + age	0.26	0.00	0.00	6.49	<b>0.000</b>	0.07	0.02	3.18	<b>0.002</b>	1.00	1.00	31.56	<b>0.000</b>
		Right amygdala	GMV + sex + age	0.26	0.00	0.00	6.73	<b>0.000</b>	0.07	0.02	2.95	<b>0.003</b>	1.11	1.11	32.41	<b>0.000</b>
	LP-FS	Left amygdala	GMV + sex + age	0.32	0.00	0.00	7.23	<b>0.000</b>	0.09	0.03	3.51	<b>0.001</b>	1.91	1.91	14.24	<b>0.000</b>
		Right amygdala	GMV + sex + age	0.40	0.00	0.00	7.52	<b>0.000</b>	0.15	0.03	5.36	<b>0.000</b>	1.76	1.76	15.84	<b>0.000</b>
FSL	Manual	Left amygdala	GMV + sex + age	0.21	0.00	0.00	5.11	<b>0.000</b>	0.09	0.02	4.07	<b>0.000</b>	2.39	2.39	9.40	<b>0.000</b>
		Right amygdala	GMV + sex + age	0.18	0.00	0.00	4.12	<b>0.000</b>	0.10	0.02	4.20	<b>0.000</b>	1.85	1.85	10.76	<b>0.000</b>
	FSL	Left amygdala	GMV + age	0.12	0.00	0.00	1.94	0.053					3.13	3.13	21.02	<b>0.000</b>
		Right amygdala	GMV + age	0.08	0.00	0.00	2.78	<b>0.006</b>					2.77	2.77	13.65	<b>0.000</b>

Smooth function (edf) as well as degrees of freedom (Ref.df) and *F*-statistic and associated *p*-value (bold highlights  $p < .05$ ) for age. LP-FS = Longitudinal pipeline of FreeSurfer

**Supplement Table S3**

GAMM estimates for bilateral amygdala volume across both sexes in manual tracing, volBrain, CS-FS, LG-FS and FSL segmentation separately, including a linear growth model of ICV.

ICV measure method	Amygdala measure method	Hemisphere	Best model fit	R <sup>2</sup> (adjusted)	ICV				Sex				Age spline			
					Estimate	SE	t	P-value	Estimate	SE	t	P-value	edf	Red.df	F	P-value
volBrain	Manual	Left amygdala	ICV + age	0.25	0.00	0.00	9.25	<b>0.000</b>					1.00	1.00	3.57	0.059
		Right amygdala	ICV + age	0.28	0.00	0.00	9.77	<b>0.000</b>					1.00	1.00	5.40	<b>0.021</b>
	volBrain	Left amygdala	ICV + age	0.27	0.00	0.00	10.02	<b>0.000</b>					1.36	1.36	3.55	<b>0.035</b>
		Right amygdala	ICV + age	0.28	0.00	0.00	10.04	<b>0.000</b>					1.00	1.00	5.76	<b>0.017</b>
FreeSurfer	Manual	Left amygdala	ICV + sex + age	0.23	0.00	0.00	5.22	<b>0.000</b>	0.07	0.02	2.89	<b>0.004</b>	1.00	1.00	1.72	0.191
		Right amygdala	ICV + age	0.23	0.00	0.00	8.30	<b>0.000</b>					1.00	1.00	0.61	0.434
	FreeSurfer	Left amygdala	ICV + age	0.27	0.00	0.00	9.60	<b>0.000</b>					1.00	1.00	4.03	<b>0.045</b>
		Right amygdala	ICV + sex + age	0.35	0.00	0.00	7.81	<b>0.000</b>	0.09	0.03	3.21	<b>0.001</b>	1.00	1.00	1.19	0.275
FSL	Manual	Left amygdala	ICV + age	0.25	0.00	0.00	9.22	<b>0.000</b>					1.00	1.00	3.46	0.064
		Right amygdala	ICV + age	0.28	0.00	0.00	9.78	<b>0.000</b>					1.00	1.00	5.27	<b>0.022</b>
	FSL	Left amygdala	ICV + age	0.14	0.00	0.00	3.05	<b>0.002</b>					3.07	3.07	18.39	<b>0.000</b>
		Right amygdala	ICV + age	0.11	0.00	0.00	3.70	<b>0.000</b>					2.53	2.53	10.07	<b>0.000</b>

Smooth function (edf) as well as degrees of freedom (Ref.df) and *F*-statistic and associated *p*-value (**bold** highlights *p* < .05) for age.