



**ONLINE FIGURE.** Representative CBF maps of intrasession repeated 3D 1800 ms scans of a 35-year-old female volunteer (participant 1) and a 73-year-old female volunteer (participant 2).

**Online Table 1: Participant distribution over different subgroups**

	No. of Participants				Total	Age (Mean $\pm$ SD) (yr)
	Men		Women			
	Younger	Older	Younger	Older		
All participants	3	17	4	10	34	58 $\pm$ 17
Field strength (intrasession)						
3T	2	8	4	6	20	56 $\pm$ 20
1.5T	1	9	0	4	14	62 $\pm$ 12
Field strength (intersession)						
1.5T–1.5T	0	4	0	2	6	66 $\pm$ 6
1.5T–3T	1	5	2	6	14	57 $\pm$ 16
3T–3T	2	8	2	2	14	56 $\pm$ 20
Age						
Younger	3	NA	4	NA	7	28 $\pm$ 4
Older	NA	17	NA	10	27	66 $\pm$ 8

**Note:**—NA indicates not applicable (there are no younger participants in the older group). Younger was defined as <35 years and older as >35 years.

Online Table 2: Imaging parameters of the different scans acquired in one session<sup>a</sup>

Sequence No.	General Parameters										1.5T				3T			
	Sequence	PLD (ms)	Readout Type	EPI Segments	Resolution (mm)	Shot Length (ms)	Dynamic Scan Time (s)	No. of Dynamics	Scan Time (s)	Matrix	Resolution (mm)	Shot Length (ms)	Dynamic Scan Time (s)	No. of Dynamics	Scan Time (s)	Matrix		
1	3D T1WI (MPRAGE)	NA	TFE	NA	1 × 1 × 1	NA	NA	NA	386	240 × 240	1 × 1 × 1	NA	NA	NA	240 × 240			
2	3D 1800ms run1	1800	GraSE	4	3.75 × 3.75 × 8.00	300	32.0	9	312	64 × 60	3.75 × 3.75 × 6	300	32.8	8	64 × 60			
3	2D 1800ms run1	1800 <sup>b</sup>	EPI	1	3.75 × 3.75 × 7.00	25	8.2	30	254	64 × 60	3.75 × 3.75 × 5	25	8.4	30	64 × 62			
4	3D 1800ms run2	1800	GraSE	4	3.75 × 3.75 × 8.00	300	32.0	9	312	64 × 60	3.75 × 3.75 × 6	300	32.8	8	64 × 60			
5	2D 1800ms run2	1800 <sup>b</sup>	EPI	1	3.75 × 3.75 × 7.00	25	8.2	30	254	64 × 60	3.75 × 3.75 × 5	25	8.4	30	64 × 62			
6	3D 1600ms	1600	GraSE	4	3.75 × 3.75 × 8.00	300	32.0	9	312	64 × 60	3.75 × 3.75 × 6	300	32.0	8	64 × 60			
7	3D 2000ms	2000	GraSE	4	3.75 × 3.75 × 8.00	300	33.6	9	328	64 × 60	3.75 × 3.75 × 6	300	34.4	8	64 × 60			
8	3D 1800ms HR	1800	GraSE	10	2.75 × 2.75 × 6.00	154	123.2	3	393	88 × 80	2.75 × 2.75 × 6	171	38.4	3	88 × 84			

**Note:**—HR indicates high-resolution; TFE, turbo field echo; NA, not applicable.

<sup>a</sup> One dynamic consists of one label and one control image. Moreover, one dynamic is devoted to the acquisition of a pair of M0 images; the M0 images are acquired with the same TR as the label/control pairs.

<sup>b</sup> The 2D-EPI scan has a PLD of 1800ms, increasing for each imaging slice resulting in a PLD of 2140ms for the last slice. This effect is taken into account during CBF quantification.

**Online Table 3: Results from Shapiro-Wilk normality test on GM and WB CBF data with and without PVC and spatial CoV data without PVC<sup>a</sup>**

Scan	Field Strength	GM CBF		WB CBF		Spatial CoV
		No PVC	PVC	No PVC	PVC	No PVC
3D 1800 ms	1.5T	0.918 (0.203)	0.934 (0.344)	0.896 (0.100)	0.944 (0.471)	0.963 (0.776)
	3T	0.911 (0.068)	0.933 (0.176)	0.897 (0.036) <sup>b</sup>	0.916 (0.083)	0.952 (0.391)
2D 1800 ms	1.5T	0.885 (0.069)	0.892 (0.086)	0.923 (0.243)	0.913 (0.173)	0.957 (0.680)
	3T	0.916 (0.082)	0.932 (0.166)	0.894 (0.032) <sup>b</sup>	0.923 (0.114)	0.956 (0.464)
3D 1600 ms	1.5T	0.971 (0.890)	0.977 (0.950)	0.960 (0.716)	0.980 (0.974)	0.931 (0.313)
	3T	0.889 (0.026) <sup>b</sup>	0.906 (0.054)	0.858 (0.007) <sup>b</sup>	0.896 (0.035) <sup>b</sup>	0.930 (0.155)
3D 2000 ms	1.5T	0.952 (0.591)	0.930 (0.307)	0.968 (0.843)	0.921 (0.227)	0.928 (0.290)
	3T	0.931 (0.160)	0.945 (0.296)	0.890 (0.027) <sup>b</sup>	0.932 (0.167)	0.980 (0.939)
3D 1800 ms HR	3T	0.903 (0.065)	0.904 (0.068)	0.922 (0.143)	0.886 (0.033) <sup>b</sup>	0.916 (0.112)

**Note:**—HR indicates high-resolution.

<sup>a</sup>Data are W statistics with *P*-values W(*P*).

<sup>b</sup>Non-normally distributed (*P* < .05).