Supplementary materials

The Catechins Profile of Green Tea Extracts Affects the Antioxidant Activity and Degradation of Catechins in DHA-Rich Oil

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Table S1: Changes in the concentration (μg/g) of catechins in DHA-rich oil supplemented with green tea extracts, catechins mixtures or individual catechins during storage at 30°C for 21 days.

Treatment		The concentration of catechins (μg/g oil)					
		Storage day	**EGC**	**EC**	**EGCG**	**ECG**	**Total**
GTE1	**Added**		**147.2**	**20**	**76.4**	**10**	**253.6**
	Extracted	0	146.2 ± 7.6	20.5 ± 2.0	57.9 ± 4.2	6.6 ± 0.5	231.1 ± 13.4
		7	114.8 ± 6.1	20.6 ± 0.6	44.3 ± 3.1	6.3 ± 0.2	186.0 ± 9.4
		14	62.9 ± 4.1	17.0 ± 0.8	23.3 ± 1.4	4.6 ± 0.1	107.9 ± 6.0
		21	39.3 ± 1.1	13.0 ± 0.6	12.6 ± 0.6	3.2 ± 0.1	68.1 ± 2.4
CatMix1	**Added**		**145.8**	**20**	**75**	**10**	**250.8**
	Extracted	0	107.6 ± 6.2	17.7 ± 1.0	47.9 ± 2.2	7.6 ± 0.3	180.8 ± 9.6
		7	80.1 ± 3.5	18.2 ± 0.7	34.3 ± 1.4	7.5 ± 0.4	140.1± 5.6
		14	37.3 ± 1.4	15.4 ± 0.2	14.0 ± 0.5	5.9 ± 0.2	72.6 ± 1.8
		21	10.4 ± 2.8	10.4 ± 0.5	4.3 ± 0.9	4.3 ± 0.2	29.4 ± 4.4
GTE2	**Added**		**44.6**	**24.6**	**152.5**	**29.8**	**251.6**
	Extracted	0	38.3 ± 1.1	22.4 ± 0.3	132.2 ± 4.5	24.4 ± 0.9	217.3 ± 6.5
		7	31.1 ± 1.0	20.7 ± 0.8	75.9 ± 2.3	19.9 ± 0.3	147.6 ± 4.3
		14	17.6 ± 0.7	17.5 ± 0.6	37.9 ± 1.1	14.9 ± 0.2	88.0 ± 1.3
		21	6.3 ± 0.8	10.1 ± 0.4	2.2 ± 0.6	6.6 ± 0.3	25.2 ± 1.8
CatMix2	**Added**		**44.6**	**24.6**	**152.4**	**29.8**	**251.5**
	Extracted	0	35.6 ± 1.0	22.7 ± 0.6	101.8 ± 4.2	21.2 ±0.7	181.2 ± 6.4
		7	28.8 ± 1.8	24.0 ± 1.4	55.1 ± 5.7	18.2 ± 1.3	126.1 ± 10.2
		14	12.2 ± 0.2	18.3 ± 0.5	18.9 ± 1.8	11.7 ± 0.3	61.1 ±2.6
		21	0.7 ± 0.2	9.9 ± 0.3	1.3 ± 0.1	4.0 ± 0.1	15.9 ± 0.4
EGC250	**Added**		**250.0**				**250.0**
	Extracted	0	203.4 ± 2.1	-	-	-	203.4 ± 2.1
		7	150.3 ± 1.7		-	-	150.3 ± 1.7
		14	105.6 ± 3.4	-	-	-	105.6 ± 3.4
		21	35.1 ± 3.9	-	-	-	35.1 ± 3.9

EC250	**Added**		**-**	**250.0**	**-**	**-**	**250.0**
	Extracted	0	-	220.6 ± 1.1	-	-	220.6 ± 1.1
		7	-	80.9 ± 1.5	-	-	80.9 ± 1.5
		14	-	12.4 ± 2.0	-	-	12.4 ± 2.0
		21	-	0.4 ± 0.01	-	-	0.4 ± 0.01
EGCG250	**Added**		**-**	**-**	**250.0**	**-**	**250.0**
	Extracted	0	-	-	179.9 ± 3.4	-	179.9 ± 3.4
		7	-	-	74.6 ± 3.1	-	74.6 ± 3.1
		14	-	-	26.0 ± 1.9	-	26.0 ± 1.9
		21	-	-	0.3 ± 0.02	-	0.3 ± 0.02
ECG250	**Added**		**-**	**-**	**-**	**250.0**	**250.0**
	Extracted	0	-	-	-	175.3 ± 8	175.3 ± 8
		7	-	-	-	16.3 ± 1.0	16.3 ± 1.0
		14	-	-	-	2.4 ± 0.03	2.4 ± 0.03
		21	-	-	-	0.2 ± 0.1	0.2 ± 0.1

EGC = epigallocatechin, EC = epicatechin, EGCG = epigallocatechin gallate, ECG = epicatechin gallate. Control = DHA-rich oil, GTE1 = DHA-rich oil + 1000 ppm GTE1, GTE2 = DHA-rich oil + 450 ppm GTE2, CatMix1 = DHA-rich oil + reconstituted catechins mixture of GTE1, CatMix2 = DHA-rich oil + reconstituted catechins mixture of GTE2, EGC250 = DHA-rich oil + 250 ppm EGC, EC250 = DHA-rich oil + 250 ppm EC, EGCG250 = DHA-rich oil + 250 ppm EGCG, ECG250 = DHA-rich oil + 250 ppm ECG.

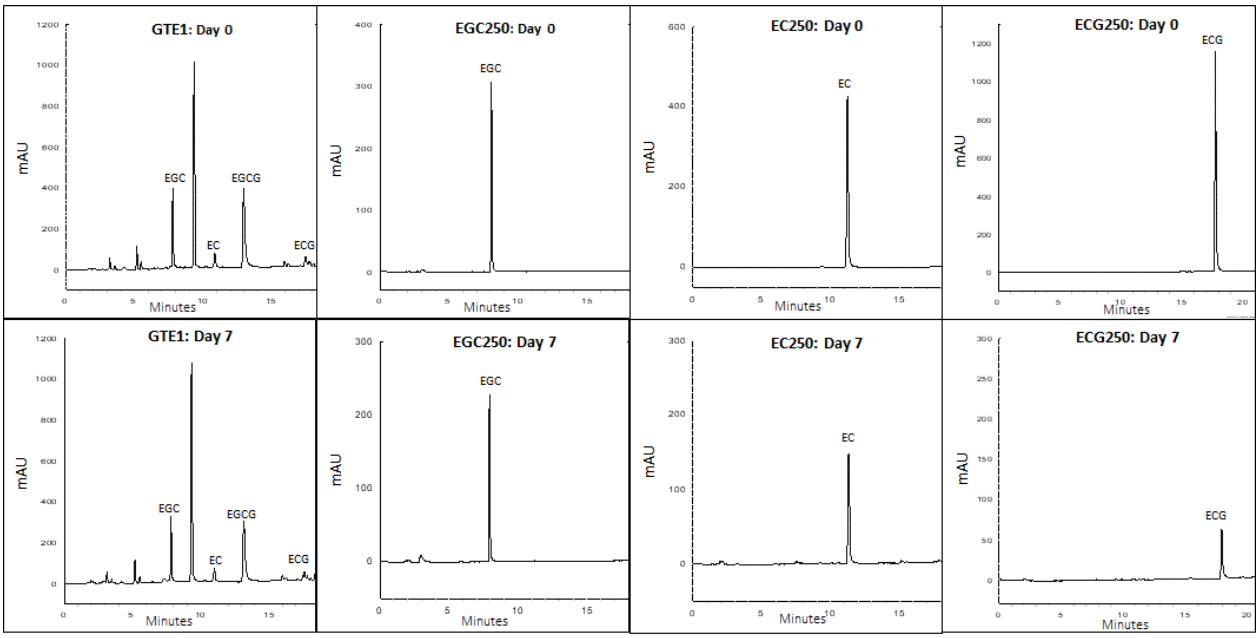

Figure S1. HPLC-UV chromatograms of catechins extracted from DHA-rich oils supplemented with GTE or catechins during accelerated ageing at 30°C. EGC = epigallocatechin, EC = epicatechin, EGCG = epigallocatechin gallate, ECG = epicatechin gallate. GTE1 = DHA-rich oil + 1000 ppm GTE1, EGC250 = DHA-rich oil + 250 ppm EGC, EC250 = DHA-rich oil + 250 ppm EC, ECG250 = DHA-rich oil + 250 ppm ECG. The degradation product at a retention time of 7.65 min was not detected in these samples.