

CORRECTION

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Correction to: The effect of western diet on mice brain lipid composition

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Correction to: *Nutr Metab*

<https://doi.org/10.1186/s12986-019-0401-4>

The original version of this article [1], published on 27 November 2019, contained incorrect calculations. In this Correction the affected part of the article is shown.

1. Incorrect calculations in Table 2 Composition of polyunsaturated FAs in major tissues;

2. Correct calculations in Table 2 Composition of polyunsaturated FAs in major tissues;

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Published online: 16 April 2020

Reference

1. Pakiet, et al. The effect of western diet on mice brain lipid composition. *Nutr Metab.* 2019;16:81. <https://doi.org/10.1186/s12986-019-0401-4>.

The original article can be found online at <https://doi.org/10.1186/s12986-019-0401-4>.

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Table 2 Composition of polyunsaturated FAs in major tissues

	Chow		Serum [µg/L]	Brain [%]	Liver [%]	Retroperitoneal adipose tissue [%]		Epididymal adipose tissue [%]		Subcutaneous adipose tissue [%]		SD	HFD	SD	HFD	SD	HFD	SD	HFD
	10%	60%				SD	HFD	SD	HFD	SD	HFD								
SFA	205.08	671.00		971.92 ± 253.18	1766.61 ± 353.61[#]	46.13 ± 1.06	46.82 ± 2.14	37.41 ± 0.86	38.03 ± 4.72	33.75 ± 2.46	29.73 ± 1.64[*]	29.08 ± 1.53	29.28 ± 1.63	31.99 ± 1.39	28.80 ± 2.29[*]				
MUFA	131.09	455.75		1079.97 ± 340.71	1227.99 ± 244.16	32.35 ± 2.64	30.99 ± 2.75	41.26 ± 2.56	39.15 ± 11.23	62.51 ± 2.16	62.06 ± 1.73	66.86 ± 1.29	62.58 ± 1.43[*]	64.19 ± 1.44	63.03 ± 2.17				
16:2 n-6	-	-		0.10 ± 0.02	0.40 ± 0.15	0.01 ± 0.00	0.01 ± 0.01	0.003 ± 0.000	0.010 [*]	0.01 ± 0.00	0.01 ± 0.00	0.01 ± 0.00	0.01 ± 0.00	0.003 ± 0.000	0.01 [#]				
LA	25.83	95.00		329.16 ± 24.65	870.96 ± 105.11 [#]	0.38 ± 0.08	0.72 ± 0.08 [#]	6.40 ± 0.46	11.56 ± 2.34 [*]	3.02 ± 0.28	7.46 ± 0.10 [#]	3.42 ± 0.51	7.51 ± 0.31 [#]	3.16 ± 0.17	7.51 ± 0.15 [#]				
20:2 n-6	0.89	0.40		3.39 ± 0.48	8.88 ± 2.05 [#]	0.08 ± 0.02	0.15 ± 0.03 [*]	0.09 ± 0.01	0.17 ± 0.05 [*]	0.07 ± 0.01	0.14 ± 0.03 [#]	0.05 ± 0.01	0.11 ± 0.02 [#]	0.05 ± 0.01	0.11 ± 0.02 [#]				
DGLA	0.26	1.25		29.86 ± 5.51	34.00 ± 13.69	0.35 ± 0.04	0.38 ± 0.01	1.35 ± 0.11	0.65 ± 0.17 [#]	0.08 ± 0.02	0.06 ± 0.00 [*]	0.05 ± 0.01	0.03 ± 0.02 [*]	0.07 ± 0.01	0.04 ± 0.01 [*]				
ARA	0.48	1.75		140.57 ± 30.17	313.94 ± 49.40 [#]	7.93 ± 0.61	8.11 ± 0.64	8.19 ± 0.87	6.28 ± 2.83	0.10 ± 0.03	0.10 ± 0.02	0.06 ± 0.02	0.04 ± 0.03	0.11 ± 0.02	0.07 ± 0.02 [*]				
AGA	0.11	0.75		1.37 ± 0.20	2.81 ± 0.534 [*]	2.06 ± 0.25	2.01 ± 0.25	0.14 ± 0.02	0.17 ± 0.05	0.02 ± 0.01	0.01 ± 0.00 [*]	0.01 ± 0.01	0.01 ± 0.00	0.01 ± 0.01	0.01 ± 0.00				
PUFA	27.76	103.13		509.63 ± 50.28	1232.70 ± 99.52[#]	11.22 ± 0.96	11.52 ± 0.64	16.62 ± 1.38	18.93 ± 5.24	3.30 ± 0.32	7.79 ± 0.09[#]	3.61 ± 0.53	7.72 ± 0.23[#]	3.42 ± 0.18	7.77 ± 0.19[#]				
ALA	0.07	0.25		5.24 ± 1.80	9.52 ± 2.24 [*]	0.02 ± 0.01	0.02 ± 0.01	0.10 ± 0.03	0.18 ± 0.06 [*]	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.00	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.00				
ETA	-	-		2.53 ± 0.43	2.37 ± 0.65	-	-	0.06 ± 0.01	0.03 ± 0.01 [*]	0.01 ± 0.00	0.01 ± 0.00	0.01 ± 0.00	0.01 ± 0.01	0.01 ± 0.00	0.01 ± 0.00				
EPA	0.19	0.50		39.66 ± 9.47	18.94 ± 2.29 [#]	0.33 ± 0.03	0.15 ± 0.02 [#]	1.71 ± 0.12	0.31 ± 0.11 [#]	0.12 ± 0.02	0.03 ± 0.00 [#]	0.13 ± 0.02	0.05 ± 0.04 [#]	0.12 ± 0.02	0.02 ± 0.01 [#]				
DPA	0.19	0.63		2.61 ± 0.39	7.59 ± 1.90 [#]	0.36 ± 0.05	0.31 ± 0.06	0.23 ± 0.04	0.32 ± 0.09	0.03 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± 0.00	0.03 ± 0.01	0.01 ± 0.00 [#]				
DHA	0.04	0.25		28.40 ± 6.74	68.66 ± 7.68 [#]	8.91 ± 0.57	9.71 ± 0.78	2.36 ± 0.29	2.85 ± 1.28	0.03 ± 0.01	0.01 ± 0.01 [*]	0.02 ± 0.00	0.01 ± 0.01	0.02 ± 0.00	0.01 ± 0.00				
PUFA	0.48	1.63		78.43 ± 17.61	108.08 ± 8.18[*]	9.62 ± 0.60	10.19 ± 0.79	4.46 ± 0.37	3.69 ± 1.50	0.20 ± 0.04	0.08 ± 0.01[#]	0.19 ± 0.01	0.10 ± 0.06[*]	0.18 ± 0.02	0.06 ± 0.02[#]				

p-value from t-test: * < 0.05, # < 0.001, AdA – adrenic acid (22:4 n-6), ALA – α-linolenic acid (18:3 n-3), ARA – arachidonic acid (20:4 n-6), DGLA – dihomono-γ-linolenic acid (20:3 n-6), DHA – docosahexaenoic acid (22:6 n-3), DPA – docosapentaenoic acid (22:5 n-3), EPA – eicosapentaenoic acid (20:5 n-3), ETA – eicosatetraenoic acid (20:4 n-3), LA – linoleic acid (18:2 n-6), MUFA – monounsaturated fatty acids, PUFA – polyunsaturated fatty acids, SFA – saturated fatty acid
 Boldface, major groups of fatty acid

Table 2 Composition of polyunsaturated FAs in major tissues

	Chow [mg/g]		Serum [mg/L]		Brain [%]		Liver [%]		Retropitrothoneal adipose tissue [%]		Epididymal adipose tissue [%]		Subcutaneous adipose tissue [%]		
	10%	60%	SD	HFD	SD	HFD	SD	HFD	SD	HFD	SD	HFD	SD	HFD	SD
SFA	17.9 ± 0.64	136 ± 8.00^{**}	1049 ± 286	1855 ± 397^{**}	46.13 ± 1.06	1855 ± 397^{**}	37.41 ± 0.86	38.03 ± 4.72	33.75 ± 2.46	29.73 ± 1.64[*]	29.08 ± 1.53	29.28 ± 1.63	31.99 ± 1.39	28.80 ± 0.29	
MUFA	10.7 ± 0.12	87.9 ± 4.15[#]	1164 ± 389	1289 ± 274	32.35 ± 2.64	1289 ± 274	41.26 ± 2.56	39.15 ± 11.23	62.51 ± 2.16	62.06 ± 1.73	66.86 ± 1.29	62.58 ± 1.43	64.19 ± 1.44	63.03 ± 2.17	
16:2 n-6	0.067 ± 0.003	0.51 ± 0.02 [#]	0.04 ± 0.06	0.40 ± 0.17 ^{**}	0.01 ± 0.00	0.40 ± 0.17 ^{**}	0.003 ± 0.000	0.020 ± 0.010 [*]	0.01 ± 0.01	0.01 ± 0.00	0.01 ± 0.00	0.01 ± 0.00	0.003 ± 0.000	0.02 ± 0.01 [#]	
LA	2.04 ± 0.04	18.6 ± 0.70 [#]	356 ± 29.1	915 ± 114 [#]	0.38 ± 0.08	915 ± 114 [#]	6.40 ± 0.46	11.56 ± 2.34 [*]	3.02 ± 0.28	7.46 ± 0.10 [#]	3.42 ± 0.51	7.51 ± 0.31 [#]	3.16 ± 0.17	7.51 ± 0.15 [#]	
20:2 n-6	0.058 ± 0.009	0.57 ± 0.07 ^{**}	3.78 ± 0.63	9.22 ± 2.37 ^{**}	0.08 ± 0.02	9.22 ± 2.37 ^{**}	0.09 ± 0.01	0.17 ± 0.05 [*]	0.07 ± 0.01	0.14 ± 0.03 [#]	0.05 ± 0.01	0.11 ± 0.02 [#]	0.05 ± 0.01	0.11 ± 0.02 [#]	
DGLA	0.012 ± 0.0002	0.11 ± 0.01 ^{**}	32.4 ± 6.83	36.0 ± 16.2	0.35 ± 0.04	36.0 ± 16.2	1.35 ± 0.11	0.65 ± 0.17 [#]	0.08 ± 0.02	0.06 ± 0.00 [*]	0.05 ± 0.01	0.03 ± 0.02 [*]	0.07 ± 0.01	0.04 ± 0.01 [*]	
ARA	0.037 ± 0.004	0.36 ± 0.01 [#]	152 ± 37.4	330 ± 592 [#]	7.93 ± 0.61	330 ± 592 [#]	8.19 ± 0.87	6.28 ± 2.83	0.10 ± 0.02	0.10 ± 0.02	0.06 ± 0.02	0.04 ± 0.03	0.11 ± 0.02	0.07 ± 0.02	
AdA	0.008 ± 0.002	0.11 ± 0.02 [*]	1.48 ± 0.35	2.81 ± 0.60 [#]	2.06 ± 0.25	2.81 ± 0.60 [#]	0.14 ± 0.02	0.17 ± 0.05	0.02 ± 0.01	0.01 ± 0.00 [*]	0.01 ± 0.01	0.01 ± 0.00	0.01 ± 0.01	0.01 ± 0.00	
PUFA	2.16 ± 0.03	19.7 ± 0.64[#]	552 ± 63.9	1295 ± 105[#]	11.22 ± 0.96	1295 ± 105[#]	16.62 ± 1.38	18.93 ± 5.24	3.30 ± 0.32	7.79 ± 0.09[#]	3.61 ± 0.53	7.72 ± 0.23[#]	3.42 ± 0.18	7.77 ± 0.19[#]	
ALA	0.005 ± 0.002	0.049 ± 0.002 [#]	5.74 ± 2.18	9.97 ± 2.55 [*]	0.02 ± 0.01	9.97 ± 2.55 [*]	0.10 ± 0.03	0.18 ± 0.06 [*]	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.00	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.00	
ETA	0.002 ± 0.001	0.01 ± 0.01	2.87 ± 0.56	3.44 ± 0.89	-	3.44 ± 0.89	0.06 ± 0.01	0.03 ± 0.01 [*]	0.01 ± 0.00	0.01 ± 0.00	0.01 ± 0.00	0.01 ± 0.01	0.01 ± 0.00	0.01 ± 0.00	
EPA	0.008 ± 0.002	0.074 ± 0.004 [#]	42.9 ± 11.7	20.1 ± 2.77 ^{**}	0.33 ± 0.03	20.1 ± 2.77 ^{**}	1.71 ± 0.12	0.31 ± 0.11 [#]	0.12 ± 0.02	0.03 ± 0.00 [#]	0.13 ± 0.02	0.05 ± 0.04 [#]	0.12 ± 0.02	0.02 ± 0.01 [#]	
DPA	0.016 ± 0.003	0.15 ± 0.007 [#]	2.81 ± 0.53	7.87 ± 2.28 ^{**}	0.36 ± 0.05	7.87 ± 2.28 ^{**}	0.23 ± 0.04	0.32 ± 0.09	0.03 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.01 ± 0.00	0.03 ± 0.01	0.01 ± 0.00 [#]	
DHA	0.006 ± 0.003	0.06 ± 0.02	30.9 ± 8.24	72.1 ± 8.81	8.91 ± 0.57	72.1 ± 8.81	2.36 ± 0.29	2.85 ± 1.28	0.03 ± 0.01	0.01 ± 0.01 [*]	0.02 ± 0.00	0.01 ± 0.01	0.02 ± 0.00	0.01 ± 0.00	
PUFA	0.04 ± 0.01	0.35 ± 0.007[#]	85.2 ± 21.7	114 ± 9.01[*]	9.62 ± 0.60	114 ± 9.01[*]	4.46 ± 0.37	3.69 ± 1.50	0.20 ± 0.04	0.08 ± 0.01[#]	0.19 ± 0.01	0.10 ± 0.06[*]	0.18 ± 0.02	0.06 ± 0.02[#]	

p-value from paired t-test: * < 0.05; # < 0.001; AdA – adrenic acid (22:4 n-6), ALA – α-linolenic acid (18:3 n-3), ARA – arachidonic acid (20:4 n-6), DGLA – dihomono-γ-linolenic acid (20:3 n-6), DHA – docosahexaenoic acid (22:6 n-3), DPA – docosapentaenoic acid (22:5 n-3), EPA – eicosapentaenoic acid (20:5 n-3), ETA – eicosatetraenoic acid (20:4 n-3), LA – linoleic acid (18:2 n-6), MUFA – monounsaturated fatty acids, PUFA – polyunsaturated fatty acids, SFA – saturated fatty acid

Boldface, major groups of fatty acid