SUPPLEMENTARY TABLES

Table S1: LC-MS/MS conditions used to determine the AA-, EPA- and DHA-derived metabolites.

Compound Name	ISTD	Precursor Ion [m/z]	Product Ion [m/z]	Fragmentor Voltage [V]	Collision Energy [V]	Cell Accelerator Voltage [V]	Retension Time [min]
d17-6-keto-PGF1α	1	367,0	163,0	120	20	1	4,87
6-keto-PGF1α	1	369,2	163,0	130	24	8	4,90
TXB3	1	367,2	169,1	100	10	1	5,12
TXB2	1	369,2	195,0	100	9	1	5,25
PGE3	1	349,2	269,2	130	7	6	5,32
11-dehydro TXB3	1	365,2	303,0	120	9	4	5,40
PGE2-d4	ISTD-1	355,3	319,0	110	4	5	5,59
PGE2	1	351,3	315,0	110	4	5	5,61
11-dehydro TXB2	1	367,2	305,0	140	8	4	5,67
Resolvin D1	2	375,2	141,1	110	9	1	5,96
LTB5	3	333,2	195,1	130	8	1	6,50
17,18-DHEQ	2	335,2	247,1	120	10	1	7,10
LTB4-d4	ISTD-2	339,2	197,1	130	7	1	7,32
LTB4	3	335,2	195,1	130	7	1	7,42
14,15-DHEQ	3	335,2	207,1	140	11	3	7,45
11,12-DHEQ	3	335,2	167,1	160	7	1	7,54
8,9-DHEQ	3	335,2	127,1	140	15	1	7,70
5,6-DHEQ	3	335,2	145,1	120	11	3	8,09
14,15-DHET-d11	ISTD-3	348,3	207,1	120	10	1	8,15
19,20-DHDP	3	361,0	273,0	130	11	3	8,18
14,15-DHET	3	337,2	207,1	120	10	1	8,21
16,17-DHDP	3	361,0	233,0	140	10	2	8,53
11,12-DHET	3	337,2	167,1	120	12	1	8,59
13,14-DHDP	3	361,0	193,0	140	10	1	8,65
10,11-DHDP	3	361,0	153,0	140	11	1	8,85
8,9-DHET	3	337,2	127,1	140	15	1	8,91
18-HEPE	5	317,2	259,1	140	3	5	9,11
20-HEPE	4	317,2	287,1	130	8	1	9,11
7,8-DHDP	3	361,0	113,0	140	15	8	9,35

5,6-DHET	5	337,2	145,1	130	11	1	9,40
20-HETE-d6	ISTD-4	325,2	295,1	130	11	2	9,59
15-HEPE	5	317,2	219,1	120	5	1	9,63
20-HETE	4	319,2	289,1	150	11	3	9,67
12-HEPE	5	317,2	179,1	120	5	1	9,84
9-HEPE	5	317,2	167,1	110	5	1	10,17
5-HEPE	5	317,2	115,1	110	6	1	10,43
22-HDHA	4	343,0	313,0	150	8	1	10,45
15-HETE-d8	ISTD-5	327,2	226,1	140	4	1	10,99
15-HETE	5	319,2	219,1	140	4	8	11,13
17,18-EEQ	6	317,2	259,1	120	3	1	11,32
17-HDHA	5	343,2	201,1	110	6	6	11,33
14-HDHA	5	343,2	205,1	110	6	2	11,59
12-HETE	5	319,2	179,1	110	5	1	11,84
14,15-EEQ	6	317,2	207,1	110	3	4	11,95
9-HETE	5	319,2	151,1	130	5	2	12,14
5-HETE	5	319,2	115,1	110	10	1	12,27
11,12-EEQ	6	317,2	167,1	130	4	1	12,41
8,9-EEQ	6	317,2	255,1	110	2	1	12,44
5,6-EEQ	6	317,2	189,1	110	2	1	12,69
4-HDHA	5	343,2	101,1	130	7	2	12,86
19,20-EDP	6	343,0	241,0	160	8	2	13,47
14,15-EET-d8	ISTD-6	327,2	226,1	120	3	8	13,80
14,15-EET	6	319,2	219,1	120	3	1	13,88
16,17-EDP	6	343,0	233,0	110	4	2	14,24
13,14-EDP	6	343,0	234,0	120	3	2	14,44
10,11-EDP	6	343,0	153,0	120	4	1	14,55
11,12-EET	6	319,2	167,1	120	2	1	14,70
4,5-EDP	6	343,0	281,0	130	6	4	14,73
7,8-EDP	6	343,0	109,0	130	9	1	14,82
8,9-EET	6	319,2	155,1	120	3	1	14,90
5,6-EET	6	319,2	191,1	120	4	1	15,08

Legend: ISTD- internal standard

Table S2: Effect of EPA/DHA supplementation on the fatty acid composition in RBCs. Individual fatty acids are given as percentage of total fatty acids (mean ± SEM, n=19). A general linear model for repeated measurements was used for analysis. $p<0.05$ was considered statistical significant. ns = not significant. Week 0 = basal = W0 and week 8 = maximum treatment = W8.

	Basal (week 0)		2g OM-3 (week 8)			Follow up (week 16)			
	Mean	**SEM**	**Mean**	**SEM**	**p (vs W0)**	**Mean**	**SEM**	**p (vs W0)**	**p (vs W8)**
C14:0	**0.43**	0.03	**0.38**	0.03	ns	**0.37**	0.04	ns	ns
C16:0	**20.97**	0.23	**20.77**	0.31	ns	**21.38**	0.25	ns	ns
C16:1 n-7	**0.67**	0.16	**0.32**	0.04	ns	**0.47**	0.06	ns	ns
C18:0	**15.18**	0.30	**15.15**	0.25	ns	**15.29**	0.33	ns	ns
C18:1 n-9	**15.70**	0.27	**14.77**	0.39	= 0.048	**15.71**	0.18	ns	ns
C18:2 n-6	**12.74**	0.45	**11.95**	0.44	= 0.007	**12.61**	0.39	ns	ns
C18:3 n-6	**0.10**	0.02	**0.11**	0.04	ns	**0.11**	0.01	ns	ns
C20:1 n-9	**0.20**	0.01	**0.24**	0.09	ns	**0.20**	0.01	ns	ns
C18:3 n-3	**0.21**	0.02	**0.17**	0.02	ns	**0.18**	0.02	ns	ns
C20:2 n-6	**0.22**	0.01	**0.28**	0.08	ns	**0.22**	0.01	ns	ns
C20:3 n-6	**1.76**	0.08	**1.52**	0.12	ns	**1.77**	0.09	ns	ns
C20:4 n-6 (AA)	**16.88**	0.30	**15.96**	0.25	= 0.038	**15.65**	0.29	= 0.012	ns
C24:0	**1.28**	0.09	**1.19**	0.10	ns	**1.40**	0.10	ns	ns
C20:5 n-3 (EPA)	**0.69**	0.04	**2.32**	0.11	< 0.001	**1.06**	0.06	< 0.001	< 0.001
C24:1 n-9	**1.45**	0.10	**1.38**	0.08	ns	**1.40**	0.05	ns	ns
C22:4 n-6	**3.00**	0.10	**2.68**	0.11	= 0.038	**2.47**	0.10	< 0.001	ns
C22:5 n-6	**0.69**	0.04	**0.64**	0.09	ns	**0.56**	0.04	= 0.006	ns
C22:5 n-3	**2.65**	0.09	**3.04**	0.07	< 0.001	**2.84**	0.07	= 0.015	= 0.020
C22:6 n-3 (DHA)	**4.25**	0.18	**6.10**	0.18	< 0.001	**5.56**	0.18	< 0.001	< 0.001

Table S3: Effect of EPA/DHA supplementation on the CYP-eicosanoid profile in plasma. The concentration of the metabolites is given in ng/ml as mean ± SEM, n=19. A general linear model for repeated measurements was used for analysis. $p<0.05$ was considered significant with * vs week 0 and # vs week 8. Week 0 = basal, week 8 = maximum treatment and week 16 = follow-up.

		Epoxymetabolite			***Diol***			***Ratio Diol/Epoxymetabolite***		
		Week 0	***Week 8***	***Week 16***	***Week 0***	***Week 8***	***Week 16***	***Week 0***	***Week 8***	***Week 16***
AA			**EET**			**DHET**			**DHET/EET**	
14,15-	Mean	**2.64**	**2.40**	**2.37**	**0.60**	**0.57**	**0.60**	0.23	0.24	0.25
	SEM	0.24	0.22	0.21	0.03	0.03	0.03			
11,12-	Mean	**1.72**	**1.44 ***	**1.42 ***	**0.64**	**0.57 ***	**0.60**	0.37	0.40	0.42
	SEM	0.13	0.13	0.12	0.04	0.03	0.03			
8,9-	Mean	**3.28**	**2.90**	**2.96**	**1.94**	**1.70**	**1.87**	0.59	0.59	0.63
	SEM	0.29	0.25	0.26	0.11	0.10	0.13			
5,6-	Mean	**1.26**	**1.00 ***	**1.07 ***	**5.36**	**4.85**	**5.26**	4.24	4.87	4.91
	SEM	0.13	0.07	0.12	0.41	0.49	0.47			
EPA			**EEQ**			**DHEQ**			**DHEQ/EEQ**	
17,18-	Mean	**0.27**	**1.34 ***	**0.30 #**	**1.61**	**4.81 ***	**1.78 #**	6.07	3.58	6.00
	SEM	0.07	0.12	0.06	0.20	0.39	0.23			
14,15-	Mean	**0.09**	**0.55 ***	**0.10 #**	**0.30**	**1.63 ***	**0.39 #**	3.33	2.95	3.89
	SEM	0.02	0.05	0.02	0.07	0.23	0.06			
11,12-	Mean	**0.07**	**0.61 ***	**0.16 * #**	**0.01**	**0.04 ***	**0.01 #**	0.18	0.06	0.08
	SEM	0.02	0.07	0.02	0.00	0.00	0.00			
8,9-	Mean	**0.08**	**0.49 ***	**0.08 #**	**0.02**	**0.07 ***	**0.02 #**	0.23	0.15	0.27
	SEM	0.04	0.09	0.03	0.00	0.01	0.00			
5,6-	Mean	**0.91**	**3.61 ***	**1.12 #**	**1.56**	**6.04 ***	**1.97 #**	1.71	1.67	1.77
	SEM	0.18	0.34	0.19	0.20	0.76	0.25			
DHA			**EDP**			**DHDP**			**DHDP/EDP**	
19,20-	Mean	**0.74**	**1.60 ***	**0.83 #**	**0.49**	**0.92 ***	**0.60 * #**	0.67	0.57	0.72
	SEM	0.08	0.14	0.13	0.05	0.06	0.07			
16,17-	Mean	**1.71**	**3.39 ***	**1.48 #**	**0.13**	**0.28 ***	**0.17 * #**	0.08	0.08	0.12
	SEM	0.29	0.39	0.30	0.02	0.03	0.02			
13,14-	Mean	**0.36**	**0.92 ***	**0.47 #**	**nd**	**nd**	**nd**	nd	nd	nd
	SEM	0.07	0.09	0.07	nd	nd	nd			
10,11-	Mean	**0.39**	**0.83 ***	**0.41 #**	**0.17**	**0.31 ***	**0.20 #**	0.44	0.37	0.48
	SEM	0.03	0.08	0.03	0.02	0.02	0.02			
7,8-	Mean	**0.77**	**1.67 ***	**1.03 * #**	**0.65**	**1.34 ***	**0.77 * #**	0.84	0.80	0.75
	SEM	0.08	0.16	0.11	0.07	0.10	0.07			

Table S4: Effect of EPA/DHA supplementation on the eicosanoid profile in urine. The concentration of the metabolites is given in ng/ml as mean ± SEM, n=19. A general linear model for repeated measurements was used for analysis. $p<0.05$ was considered significant with * week 0 and # vs week 8. Week 0 = basal, week 8 = maximum treatment and week 16 = follow-up.

		Week 0	***Week 8***	***Week 16***	***Week 0***	***Week 8***	***Week 16***
AA			**EET**			**DHET**	
14,15-	Mean	**nd**	**nd**	**nd**	**0.25**	**0.29**	**0.26**
	SEM				0.02	0.05	0.03
11,12-	Mean	**nd**	**nd**	**nd**	**0.05**	**0.05**	**0.05**
	SEM				0.01	0.01	0.01
8,9-	Mean	**0.01**	**0.02**	**0.03**	**0.84**	**0.84**	**0.75**
	SEM	0.01	0.01	0.02	0.11	0.15	0.12
5,6-	Mean	**nd**	**nd**	**nd**	**0.10**	**0.08**	**0.08**
	SEM				0.02	0.02	0.01
20-			**HETE**				
	Mean	**0.09**	**0.11**	**0.09**			
	SEM	0.02	0.02	0.02			
PGI2			**6-keto-PGF1α**				
	Mean	**0.42**	**0.45**	**0.32**			
	SEM	0.14	0.19	0.12			
EPA			**EEQ**			**DHEQ**	
17,18-	Mean	**nd**	**nd**	**nd**	**0.31**	**1.24 ***	**0.32 #**
	SEM				0.05	0.23	0.07
14,15-	Mean	**nd**	**nd**	**nd**	**0.04**	**0.24 ***	**0.05 #**
	SEM				0.02	0.06	0.01
11,12-	Mean	**nd**	**nd**	**nd**	**nd**	**0.02**	**nd**
	SEM					0.00	
8,9-	Mean	**nd**	**0.01**	**0.01**	**0.04**	**0.22 ***	**0.04 #**
	SEM		0.00	0.01	0.00	0.04	0.01
5,6-	Mean	**nd**	**nd**	**nd**	**0.17**	**1.00 ***	**0.17 #**
	SEM				0.05	0.21	0.04
20-			**HEPE**				
	Mean	**0.07**	**0.24 ***	**0.08 #**			
	SEM	0.02	0.05	0.02			
PGI3			**Δ17-6-keto-PGF1α**				
	Mean	**0.74**	**1.14**	**0.78**			
	SEM	0.40	0.40	0.35			
DHA			**EDP**			**DHDP**	
19,20-	Mean	**nd**	**nd**	**nd**	**0.06**	**0.12 ***	**0.08**
	SEM				0.02	0.02	0.01
16,17-	Mean	**nd**	**nd**	**nd**	**0.02**	**0.03**	**0.03**
	SEM				0.00	0.01	0.01
13,14-	Mean	**nd**	**nd**	**nd**	**0.15**	**0.16**	**0.19**
	SEM				0.07	0.07	0.08
10,11-	Mean	**nd**	**nd**	**nd**	**0.10**	**0.43 ***	**0.14 #**
	SEM				0.01	0.08	0.03
7,8-	Mean	**0.01**	**0.01**	**0.01**	**0.39**	**0.52 ***	**0.25 #**
	SEM	0.01	0.01	0.01	0.22	0.30	0.12
22-			**HDHA**				
	Mean	**0.04**	**0.11**	**0.03**			
	SEM	0.03	0.04	0.01			