

Web Material

Dietary Fat Intake and Risk of Uterine Leiomyomata: A Prospective Ultrasound Study

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Web Tables 1 & 2

Web Table 1. Selected Characteristics of SELF Participants by Follow-up Status, 2010-2018.

Characteristic	Withdrawal ^a				Remaining cohort n=1,105	
	Before first follow-up, n=60		After first follow-up, n=66		Mean	SD
	Mean	SD	Mean	SD		
Age, years	28.40	3.74	28.03	3.41	28.45	3.46
Body mass index, kg/m ²	33.20	9.94	33.49	10.59	33.75	9.75
Number of live births	1.43	1.52	1.00	1.22	1.32	1.43
Total fat ^b , g/d	83.37	12.08	83.49	11.85	84.34	12.55
Total saturated fat ^b , g/d	25.47	4.80	25.75	4.41	26.12	4.96
Total monounsaturated fat ^b , g/d	32.42	5.24	32.39	5.17	32.51	5.37
Total polyunsaturated fat ^b , g/d	18.64	3.28	18.51	3.21	18.83	4.01
Total trans-fat ^b , g/d	3.22	1.12	3.35	0.85	3.20	1.11
Total marine omega-3 ^b , mg/d	134.91	114.11	127.90	76.17	122.92	112.66
Total energy, kcal/d	2,048.49	1,011.85	1,803.04	982.18	2,044.54	959.67

^a Women who withdrew from the study prior to the 20 month follow-up visit were excluded from the analysis. Women who withdrew after completing their first follow-up visit were right-censored from the analysis.

^b Energy-adjusted using the nutrient residual method.

Web Table 2. Associations of Dietary Fat Intake with UL Risk in SELF, 2010-2018 (n=1,171).

Dietary Fat	Energy-Adjusted Quartiles of Fat Intake								P trend
	1	2	3	4					
Total fat, g/d	<76.96		76.96-84.07		84.08-91.15		≥91.16		
No. of Cases	67		68		67		75		
HR (95% CI) ^a	1.00	Referent	0.88	(0.62, 1.25)	0.80	(0.56, 1.15)	1.07	(0.77, 1.50)	0.77
HR (95% CI) ^b	1.00	Referent	0.89	(0.62, 1.27)	0.80	(0.56, 1.14)	1.08	(0.76, 1.52)	0.78
Total saturated fat, g/d	<23.18		23.18-25.71		25.72-28.69		≥28.70		
No. of Cases	66		71		74		66		
HR (95% CI) ^a	1.00	Referent	0.94	(0.66, 1.33)	1.00	(0.71, 1.41)	0.93	(0.65, 1.31)	0.74
HR (95% CI) ^b	1.00	Referent	0.92	(0.65, 1.32)	1.05	(0.74, 1.48)	0.97	(0.67, 1.38)	0.98
Fatty acid 4:0 (butyric acid), mg/d	<419.92		419.92-515.31		515.32-645.77		≥645.78		
No. of Cases	64		67		74		72		
HR (95% CI) ^a	1.00	Referent	0.95	(0.67, 1.36)	1.16	(0.82, 1.64)	1.10	(0.78, 1.55)	0.44
HR (95% CI) ^b	1.00	Referent	0.95	(0.66, 1.36)	1.17	(0.82, 1.66)	1.11	(0.78, 1.57)	0.43
Fatty acid 6:0 (caproic acid), mg/d	<225.85		225.85-276.17		276.18-349.01		≥349.02		
No. of Cases	67		64		74		72		
HR (95% CI) ^a	1.00	Referent	0.88	(0.61, 1.26)	1.12	(0.79, 1.57)	1.04	(0.74, 1.46)	0.57
HR (95% CI) ^b	1.00	Referent	0.86	(0.60, 1.24)	1.15	(0.81, 1.63)	1.04	(0.74, 1.48)	0.53
Fatty acid 8:0 (caprylic acid), mg/d	<174.64		174.64-211.02		211.03-248.62		≥248.63		
No. of Cases	69		66		73		69		
HR (95% CI) ^a	1.00	Referent	0.89	(0.62, 1.26)	1.02	(0.72, 1.44)	0.96	(0.68, 1.35)	0.99
HR (95% CI) ^b	1.00	Referent	0.83	(0.58, 1.18)	1.01	(0.71, 1.44)	0.92	(0.65, 1.31)	0.91
Fatty acid 10:0 (capric acid), mg/d	<334.61		334.61-404.56		404.57-496.48		≥496.49		
No. of Cases	65		67		73		72		
HR (95% CI) ^a	1.00	Referent	0.96	(0.67, 1.36)	1.12	(0.79, 1.58)	1.07	(0.76, 1.51)	0.55
HR (95% CI) ^b	1.00	Referent	0.96	(0.67, 1.38)	1.13	(0.79, 1.61)	1.09	(0.77, 1.55)	0.52
Fatty acid 12:0 (lauric acid), mg/d	<517.10		517.10-621.12		621.13-752.10		≥752.11		
No. of Cases	62		71		86		58		
HR (95% CI) ^a	1.00	Referent	1.14	(0.79, 1.63)	1.38	(0.98, 1.96)	0.92	(0.64, 1.32)	0.66
HR (95% CI) ^b	1.00	Referent	1.14	(0.79, 1.65)	1.35	(0.95, 1.92)	0.86	(0.59, 1.25)	0.41
Fatty acid 14:0 (myristic acid), mg/d	<1,669.28		1,669.28-1,968.36		1,968.37-2,334.26		≥2,334.27		
No. of Cases	61		75		73		68		

HR (95% CI) ^a	1.00	Referent	1.24	(0.87, 1.77)	1.17	(0.82, 1.67)	1.13	(0.80, 1.61)	0.63
HR (95% CI) ^b	1.00	Referent	1.30	(0.91, 1.86)	1.24	(0.87, 1.78)	1.16	(0.81, 1.66)	0.56
Fatty acid 16:0 (palmitic acid), mg/d	<12,693.14		12,693.14-13,990.74		13,990.75-15,405.02		≥15,405.03		
No. of Cases	68		66		72		71		
HR (95% CI) ^a	1.00	Referent	0.83	(0.59, 1.19)	0.91	(0.65, 1.29)	1.01	(0.72, 1.42)	0.82
HR (95% CI) ^b	1.00	Referent	0.83	(0.58, 1.18)	0.96	(0.68, 1.36)	1.09	(0.77, 1.54)	0.48
Fatty acid 18:0 (stearic acid), mg/d	<5,901.01		5,901.01-6,648.18		6,648.19-7,327.46		≥7,327.47		
No. of Cases	68		74		67		68		
HR (95% CI) ^a	1.00	Referent	0.98	(0.70, 1.38)	0.82	(0.57, 1.16)	0.97	(0.69, 1.36)	0.68
HR (95% CI) ^b	1.00	Referent	0.91	(0.64, 1.28)	0.83	(0.58, 1.19)	1.06	(0.75, 1.51)	0.83
Total monounsaturated fat, g/d	<29.58		29.58-32.49		32.50-35.29		≥35.30		
No. of Cases	67		70		60		80		
HR (95% CI) ^a	1.00	Referent	0.92	(0.65, 1.31)	0.72	(0.50, 1.03)	1.16	(0.83, 1.61)	0.57
HR (95% CI) ^b	1.00	Referent	0.90	(0.63, 1.29)	0.72	(0.50, 1.04)	1.17	(0.83, 1.64)	0.53
Fatty acid 16:1 (palmitoleic acid), mg/d	<969.73		969.73-1,150.84		1,150.85-1,317.09		≥1,317.10		
No. of Cases	56		80		67		74		
HR (95% CI) ^a	1.00	Referent	1.39	(0.97, 1.98)	1.09	(0.75, 1.59)	1.36	(0.96, 1.93)	0.21
HR (95% CI) ^b	1.00	Referent	1.29	(0.90, 1.86)	1.11	(0.76, 1.63)	1.42	(0.99, 2.04)	0.10
Fatty acid 18:1 (oleic acid), mg/d	<26,718.74		26,718.74-29,527.19		29,527.20-32,228.72		≥32,228.73		
No. of Cases	65		70		60		82		
HR (95% CI) ^a	1.00	Referent	0.93	(0.65, 1.32)	0.74	(0.51, 1.07)	1.22	(0.88, 1.70)	0.36
HR (95% CI) ^b	1.00	Referent	0.89	(0.62, 1.27)	0.70	(0.49, 1.02)	1.23	(0.88, 1.72)	0.33
Fatty acid 20:1 (gadoleic acid), mg/d	<243.85		243.85-281.97		281.98-317.29		≥317.30		
No. of Cases	60		72		79		66		
HR (95% CI) ^a	1.00	Referent	1.11	(0.78, 1.59)	1.24	(0.87, 1.76)	1.11	(0.78, 1.58)	0.52
HR (95% CI) ^b	1.00	Referent	1.13	(0.79, 1.62)	1.27	(0.89, 1.81)	1.12	(0.78, 1.60)	0.49
Fatty acid 22:1 (erucic acid), mg/d	<23.20		23.20-34.01		34.02-49.30		≥49.31		
No. of Cases	60		72		75		70		
HR (95% CI) ^a	1.00	Referent	1.05	(0.72, 1.52)	1.15	(0.78, 1.68)	1.21	(0.85, 1.72)	0.27
HR (95% CI) ^b	1.00	Referent	1.18	(0.80, 1.73)	1.19	(0.80, 1.77)	1.30	(0.90, 1.88)	0.21

Total Polyunsaturated fat, g/d	<16.57	16.57-18.56	18.57-20.80	≥20.81				
No. of Cases	61	71	79	66				
HR (95% CI) ^a	1.00 Referent	1.05 (0.74, 1.50)	1.20 (0.85, 1.71)	0.97 (0.68, 1.38)				0.92
HR (95% CI) ^b	1.00 Referent	1.10 (0.76, 1.58)	1.28 (0.89, 1.83)	0.91 (0.64, 1.31)				0.67
<i>Omega-3 fatty acids</i>								
Fatty acid 18:3 (α-linolenic acid), mg/d	<1,379.76	1,379.76-1,590.68	1,590.69-1,863.07	≥1,863.08				
No. of Cases	66	81	67	63				
HR (95% CI) ^a	1.00 Referent	1.07 (0.76, 1.50)	0.83 (0.58, 1.18)	0.82 (0.58, 1.17)				0.14
HR (95% CI) ^b	1.00 Referent	1.10 (0.78, 1.56)	0.84 (0.59, 1.21)	0.82 (0.58, 1.18)				0.14
Fatty acid 20:5 (eicosapentaenoic acid), mg/d	<19.70	19.70-32.04	32.05-48.24	≥48.25				
No. of Cases	61	59	78	79				
HR (95% CI) ^a	1.00 Referent	0.82 (0.56, 1.21)	1.10 (0.76, 1.60)	1.25 (0.88, 1.77)				0.05
HR (95% CI) ^b	1.00 Referent	0.83 (0.56, 1.23)	1.14 (0.78, 1.66)	1.25 (0.87, 1.81)				0.06
Fatty acid 22:5 (docosapentaenoic acid), mg/d	<8.01	8.01-12.01	12.02-18.04	≥18.05				
No. of Cases	61	68	70	78				
HR (95% CI) ^a	1.00 Referent	0.97 (0.67, 1.41)	1.01 (0.70, 1.47)	1.25 (0.89, 1.77)				0.12
HR (95% CI) ^b	1.00 Referent	1.01 (0.69, 1.47)	1.00 (0.68, 1.47)	1.22 (0.85, 1.75)				0.21
Fatty acid 22:6 (docosahexaenoic acid), mg/d	<40.60	40.60-58.11	58.12-80.38	≥80.39				
No. of Cases	56	67	68	86				
HR (95% CI) ^a	1.00 Referent	1.06 (0.72, 1.54)	1.09 (0.74, 1.59)	1.52 (1.07, 2.15)				<0.01
HR (95% CI) ^b	1.00 Referent	1.04 (0.71, 1.52)	1.12 (0.76, 1.64)	1.49 (1.04, 2.14)				0.01
Total marine omega-3, mg/d	<70.37	70.37-102.13	102.14-146.36	≥146.37				
No. of Cases	59	61	76	81				
HR (95% CI) ^a	1.00 Referent	0.90 (0.61, 1.31)	1.12 (0.78, 1.62)	1.37 (0.96, 1.93)				0.02
HR (95% CI) ^b	1.00 Referent	0.87 (0.59, 1.29)	1.14 (0.79, 1.66)	1.35 (0.94, 1.93)				0.03
<i>Omega-6 fatty acids</i>								
Fatty acid 18:2 (linoleic acid), mg/d	<13,963.96	13,963.96-15,689.54	15,689.55-17,615.96	≥17,615.97				
No. of Cases	61	72	75	69				

HR (95% CI) ^a	1.00	Referent	1.12	(0.78, 1.59)	1.10	(0.77, 1.57)	1.05	(0.74, 1.48)	0.85
HR (95% CI) ^b	1.00	Referent	1.18	(0.82, 1.70)	1.16	(0.80, 1.67)	0.99	(0.70, 1.42)	0.86
Fatty acid 20:4 (arachidonic acid), mg/d	<100.58		100.58-129.79		129.80-164.01		≥164.02		
No. of Cases	64		71		73		69		
HR (95% CI) ^a	1.00	Referent	1.03	(0.72, 1.47)	1.03	(0.72, 1.47)	1.13	(0.80, 1.60)	0.48
HR (95% CI) ^b	1.00	Referent	1.01	(0.70, 1.44)	1.10	(0.76, 1.58)	1.24	(0.87, 1.75)	0.19
Total omega-6, mg/d	<14,089.06		14,089.06-15,841.71		15,841.72-17,759.58		≥17,759.59		
No. of Cases	63		68		74		72		
HR (95% CI) ^a	1.00	Referent	1.01	(0.71, 1.44)	1.03	(0.73, 1.47)	1.07	(0.76, 1.50)	0.69
HR (95% CI) ^b	1.00	Referent	1.04	(0.73, 1.50)	1.07	(0.75, 1.54)	1.00	(0.71, 1.43)	0.99
Ratio of total omega-6 to total marine omega-3	<98.94		98.94-146.13		146.14-205.20		≥205.20		
No. of Cases	69		86		62		60		
HR (95% CI) ^a	1.00	Referent	1.13	(0.80, 1.59)	0.75	(0.42, 1.08)	0.81	(0.57, 1.15)	0.09
HR (95% CI) ^b	1.00	Referent	1.09	(0.77, 1.56)	0.78	(0.53, 1.13)	0.80	(0.56, 1.15)	0.10
Total trans-fat, g/d	<2.57		2.57-3.12		3.13-3.73		≥3.74		
No. of Cases	73		64		75		65		
HR (95% CI) ^a	1.00	Referent	0.74	(0.52, 1.06)	0.90	(0.64, 1.26)	0.83	(0.59, 1.17)	0.49
HR (95% CI) ^b	1.00	Referent	0.75	(0.52, 1.07)	0.91	(0.64, 1.30)	0.83	(0.59, 1.18)	0.53
<i>trans</i> Fatty acid 16:1 (trans hexadecenoic acid), mg/d	<26.03		26.03-32.44		32.45-38.97		≥38.98		
No. of Cases	64		63		83		67		
HR (95% CI) ^a	1.00	Referent	0.86	(0.59, 1.23)	1.16	(0.82, 1.64)	0.97	(0.69, 1.38)	0.79
HR (95% CI) ^b	1.00	Referent	0.84	(0.58, 1.22)	1.21	(0.85, 1.74)	1.02	(0.71, 1.46)	0.55
<i>trans</i> Fatty acid 18:1 (trans octadecenoic acid), mg/d	<4.89		4.89-12.48		12.49-20.12		≥20.13		
No. of Cases	64		74		71		68		
HR (95% CI) ^a	1.00	Referent	1.05	(0.73, 0.51)	0.92	(0.62, 1.37)	0.96	(0.67, 1.39)	0.75
HR (95% CI) ^b	1.00	Referent	1.10	(0.76, 1.60)	0.95	(0.63, 1.44)	1.01	(0.69, 1.47)	0.89
<i>trans</i> Fatty acid 18:2 (trans octadecadienoic acid), mg/d	<138.47		138.47-163.99		164.00-186.16		≥186.17		

No. of Cases	69		58		72		78		
HR (95% CI) ^a	1.00	Referent	0.74	(0.51, 1.06)	0.95	(0.67, 1.34)	1.09	(0.79, 1.52)	0.36
HR (95% CI) ^b	1.00	Referent	0.71	(0.49, 1.02)	0.92	(0.64, 1.31)	1.10	(0.78, 1.55)	0.33

Abbreviations: CI, confidence interval; HR, hazard ratio

^a Adjusted for age and total energy

^b Adjusted for age, education, income, body mass index, age at menarche, parity, age at first birth, years since last birth, oral contraceptive use, progestin-only injectable contraceptive use, alcohol intake, smoking, history of hypertension, and total energy.