

Appendix 2: Summary of studies reporting TFA in serum or diet and associations observed with health outcomes (using fully adjusted models where available and quoting TFA intake/serum values where available)

Condition	Significant positive association	No significant association	Significant inverse association
All-cause mortality	[1]D, 3.0%E 1	0	0
CHD & CVD	[2] DF, CHD, 1.5%E [3]DC, 0.7%E [4] DF, 3.3g/day* [5] DV, 3%E 4	[2] DF, 1.5%E [6] SC, 0.1% SFA [5] DV, 3%E [4] DFA, 3.3 g/day* 4	[5] DV, 3%E 1
Cancer			
All	[7] DV, 2.5%E	[7] DV, 2.5%E	[7] DV, 2.5%E
<i>Subtotal:</i>	1	1	1
Breast	[8]SFVC, 1.5%E [9] AdFC, 1.1% SFA [10] DFV [11] DF, 2.5 g/day	[12] DF, 1.4%E [8] SFVC, 1.5%E [13] SFC, 0.3% TFA [14] DF, CLA=109 mg/day [15] SFC [16] SFIC, 0.4% SFA [10] DFV	[17] SFC, 0.5%E [17] DFC, 0.5%E [18] DF, INR
<i>Subtotal:</i>	4	7	3
Colorectal	[19] DFC, 2.5 g/1000kcal [20] DFC, 3.6 g/day	[21] DF, 2.9 g/day [22] DFV [23] DI, INR [19] DMC, 2.5 g/1000kcal [20] DMC, 3.6 g/day [24] DC, 5.5 g/day	
<i>Subtotal:</i>	2	6	0
Pancreatic	[25] DV, INR	[26] D, 2.9 g/day [27] DF, 4g/day* [25] DV, INR	
<i>Subtotal:</i>	1	3	0
Prostate	[28] SMV, 1.8% of SFA [29] SMVC, 0.2 % SFA	[28] SMV, 1.8% SFA [29] SMVC, 0.22% SFA [30] DM, 3.3 g/day	
<i>Subtotal:</i>	2	3	0
Total Cancer	10	20	4
T2D	[31] DF, 2%E 1	[32] DX, 1.7 g/day [33] DM, 1.3%E 2	[34] S, 0.06% SFA 1
Other Conditions[#]	[35] DIX, marg [36] DI, marg [37] S, 2%SFA [38] DE 4	[39] D, 1.59%E* [40] DV, 0.08g/day [41] SFI 0.37 % w/w [^] [42] DIC, marg [43] SIF, 0.23% SFA [44]D, 2.7g/day 6	0
Total associations	35% (20/58)	55% (32/58)	10% (6/58)

A= aspirin user, Ad =adipose tissue concentration, C = case-control study (others are prospective), CHD = pre-existing coronary heart disease, D= TFA measured by dietary intake, E = ecological study F= association only in females, I =industrial, INR= intake not reported, M= association only in males, marg = margarine rather than TFA available, PL= phospholipid, R= ruminant, S=TFA as measured in serum, SFA=serum fatty acids, V = various findings depending factors such as individual TFA isomer/type of tumour etc (see Table 1 for more info), X = cross-sectional study, % w/w = %

weight/weight, * = mean of category medians, ^ measurement taken at delivery. #Studies by Cohen et al (2011) and Enke et al (2011) not included in summary as they assessed foetal growth and correlation between maternal and foetal blood (not adverse health outcomes per se).

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