

Table S2. Subgroup analyses for effects of anthocyanins and main anthocyanin in the test foods on TC

Subgroup	Anthocyanin groups	n	MD [95% CI]	I ²	p			
					Heterogeneity ^a	Within-group ^b	Intra-group ^c	
1. Main anthocyanin to total anthocyanin content								
≥ 50%	Cyanidin-based	4	-0.24 [-0.53, 0.04]	0	0.44	0.09		
	Delphinidin-based	10	-0.08 [-0.21, 0.05]	0	0.99	0.21		
	Subtotal	14	-0.11 [-0.23, 0.01]	0	0.95	0.07	0.31	
	< 50%	Delphinidin-based	2	-1.44 [-2.30, -0.58]	86	0.009	0.001	
		Malvidin-based	4	0.15 [-0.03, 0.32]	0	0.44	0.10	
		Subtotal	6	-0.41 [-1.12, 0.30]	95	< 0.00001	0.25	0.0004
2. Anthocyanin dosage								
≥ 160 mg	Cyanidin-based	2	-0.11 [-0.86, 0.65]	55	0.14	0.78		
	Delphinidin-based	6	-0.11 [-0.27, 0.04]	0	0.94	0.15		
	Malvidin-based	2	-0.09 [-0.42, 0.25]	0	0.77	0.61		
	Subtotal	10	-0.13 [-0.26, 0.01]	0	0.91	0.07	0.99	
	< 160 mg	Cyanidin-based	2	-0.23 [-0.64, 0.17]	0	0.50	0.26	
		Delphinidin-based	6	-0.48 [-1.18, 0.22]	93	< 0.00001	0.18	
		Malvidin-based	2	0.24 [0.03, 0.44]	0	0.96	0.02	
		Subtotal	10	-0.28 [-0.73, 0.18]	92	< 0.00001	0.23	0.03
3. Types of anthocyanin source								
Purified anthocyanins	Delphinidin-based	7	-0.12 [-0.26, 0.03]	0	0.98	0.12		
	Subtotal	7	-0.12 [-0.26, 0.03]	0	0.98	0.12	-	
Extract	Cyanidin-based	4	-0.24 [-0.53, 0.04]	0	0.44	0.09		
	Delphinidin-based	5	-0.55 [-1.40, 0.30]	94	< 0.00001	0.20		
	Malvidin-based	3	0.16 [-0.04, 0.36]	20	0.30	0.13		
	Subtotal	12	-0.24 [-0.64, 0.16]	90	< 0.00001	0.23	0.03	
4. Target population								
Prediabetes and/or type 2 diabetes	Delphinidin-based	2	-0.14 [-0.43, 0.15]	0	0.97	0.33		
	Subtotal	3	-0.12 [-0.38, 0.14]	0	0.93	0.37	0.70	
Dyslipidemia	Delphinidin-based	6	-0.57 [-1.20, 0.07]	92	< 0.00001	0.08		
	Subtotal	6	-0.57 [-1.20, 0.07]	92	< 0.00001	0.08	-	
Overweight or obesity	Cyanidin-based	2	-0.23 [-0.62, 0.17]	0	0.50	0.26		
	Subtotal	3	-0.11 [-0.41, 0.18]	0	0.56	0.45	0.45	
Healthy	Delphinidin-based	2	0.05 [-0.31, 0.41]	0	0.79	0.79		

	Malvidin-based	3	0.16 [-0.04, 0.36]	16	0.30	0.13	
	Subtotal	6	0.05 [-0.15, 0.24]	36	0.17	0.64	0.08
5. Baseline TC							
> 5.17 mmol/L	Delphinidin-based	9	-0.40 [-0.83, 0.03]	90	< 0.00001	0.07	
	Malvidin-based	2	0.24 [0.03, 0.44]	0	0.96	0.02	
	Subtotal	12	-0.28 [-0.63, 0.07]	90	< 0.00001	0.11	0.009
≤ 5.17 mmol/L	Cyanidin-based	3	-0.16 [-0.57, 0.24]	20	0.29	0.43	
	Delphinidin-based	3	-0.02 [-0.28, 0.25]	0	0.75	0.89	
	Malvidin-based	2	-0.09 [-0.42, 0.25]	0	0.77	0.61	
	Subtotal	8	-0.09 [-0.26, 0.09]	0	0.80	0.34	0.83
6. Baseline BMI							
≥ 25.0 kg/m ²	Cyanidin-based	3	-0.13 [-0.51, 0.24]	0	0.38	0.48	
	Delphinidin-based	6	-0.16 [-0.43, 0.12]	56	0.05	0.26	
	Malvidin-based	3	0.21 [0.02, 0.40]	0	0.75	0.03	
	Subtotal	12	-0.04 [-0.21, 0.14]	47	0.04	0.70	0.06
< 25.0 kg/m ²	Delphinidin-based	6	-0.14 [-0.32, 0.05]	0	0.96	0.14	
	Subtotal	8	-0.17 [-0.32, 0.01]	0	0.94	0.03	0.56

The probabilities are based on the Cochran's Q-test (a), test for overall effect of each anthocyanin group (b), and test for subgroup differences (c). If there was the data about subgroup numbers being one or less, analysis limited to that subgroup was omitted.

BMI, body mass index; CI, confidence interval; MD, mean difference; n, sample size; TC, total cholesterol.