

Additional file 1

Figure S1: Directed acyclic graph for the association between SSB consumption and colorectal cancer incidence

Figure S2: Directed acyclic graph for the association between ASB consumption and colorectal cancer incidence

Figure S3: Directed acyclic graph for the association between juice consumption and colorectal cancer incidence

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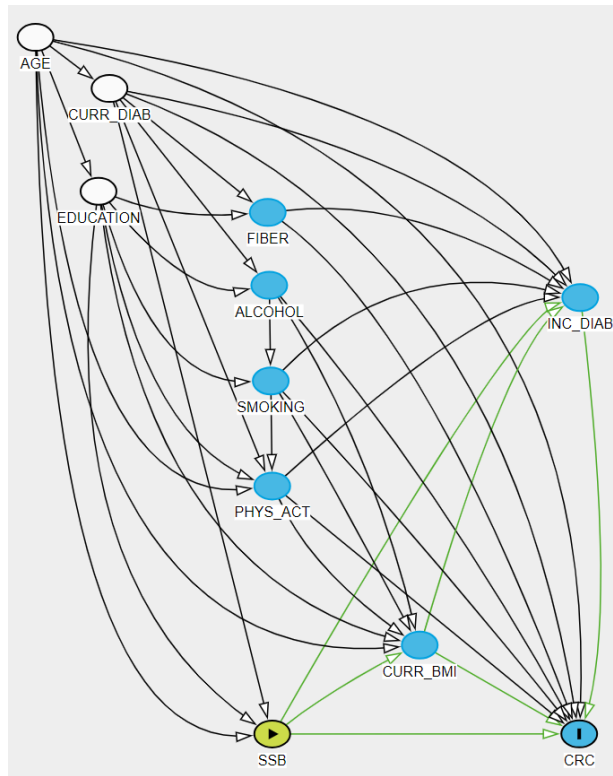


Figure S1. Directed acyclic graph for the association between SSB consumption and colorectal cancer incidence. Green node: exposure. White nodes: identified and adjusted confounders on the causal pathways. Blue node with I: outcome. Green paths: causal pathways. Black paths: closed paths. Abbreviations: SSB = sugar-sweetened beverage, CURR = current, DIAB = diabetes, INC = incident, PHYS_ACT = physical activity, BMI = body mass index, CRC = colorectal cancer

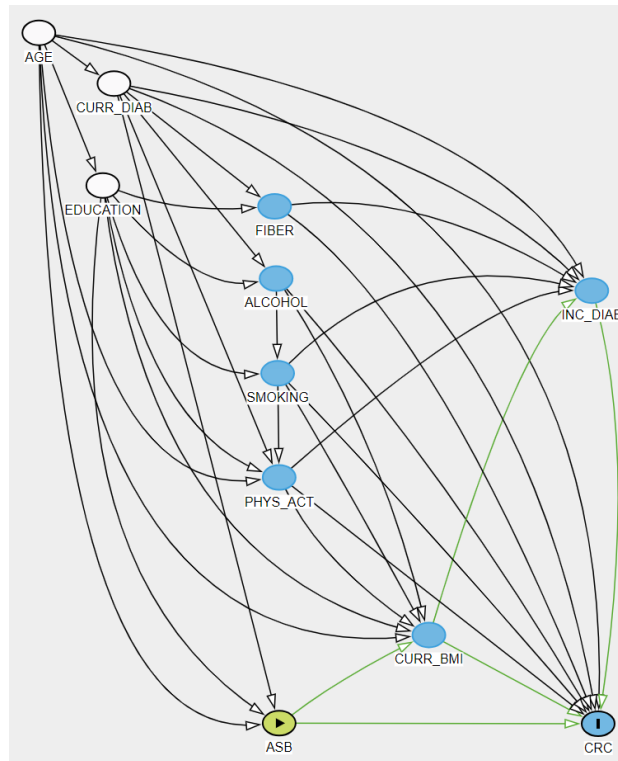


Figure S2. Directed acyclic graph for the association between ASB consumption and colorectal cancer incidence. Green node: exposure. White nodes: identified and adjusted confounders on the causal pathways. Blue node with I: outcome. Green paths: causal pathways. Black paths: closed paths. Abbreviations: ASB = artificially sweetened beverage, CURR = current, DIAB = diabetes, INC = incident, PHYS_ACT = physical activity, BMI = body mass index, CRC = colorectal cancer

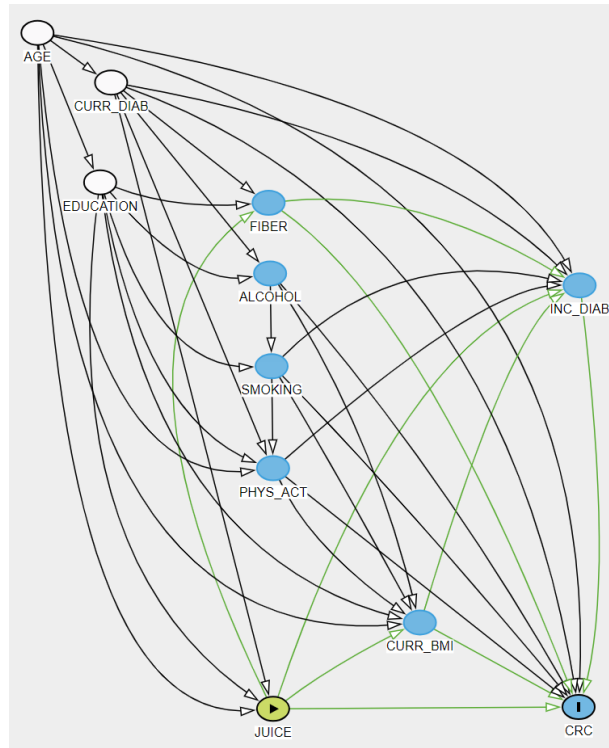


Figure S3. Directed acyclic graph for the association between juice consumption and colorectal cancer incidence. Green node: exposure. White nodes: identified and adjusted confounders on the causal pathways. Blue node with I: outcome. Green paths: causal pathways. Black paths: closed paths. Abbreviations: CURR = current, DIAB = diabetes, INC = incident, PHYS_ACT = physical activity, BMI = body mass index, CRC = colorectal cancer

Table S1. Morphology codes (ICD-O-3) of adenocarcinomas for the cases in this study

ADENOCARCINOMA, NOS	8140/3
ADENOCARCINOMA IN ADENOMATOUS POLYP	8210/3
TUBULAR ADENOCARCINOMA	8211/3
ADENOCARCINOMA WITH MIXED SUBTYPES	8255/3
PAPILLARY ADENOCARCINOMA, NOS	8260/3
ADENOCARCINOMA IN VILLOUS ADENOMA	8261/3
VILLOUS ADENOCARCINOMA	8262/3
ADENOCARCINOMA IN TUBULOVILLOUS ADENOMA	8263/3
MUCINOUS ADENOCARCINOMA	8480/3
MUCIN-PRODUCING ADENOCARCINOMA	8481/3
ADENOCARCINOMA WITH NEUROENDOCRINE DIFFERENC.	8574/3
MUCINOUS CYSTADENOCARCINOMA, NOS	8470/3

Table S2. Cross-tabulation of SSB intake at baseline and follow-up

SSB intake at baseline	SSB intake at follow-up			Total
	never/seldom	1-6 glasses/week	≥ 7 glasses/week	
never/seldom	51	4	0	55
1-6 glasses/week	23	13	1	37
≥ 7 glasses/week	3	3	2	8
Total	77	20	3	100

Table S3. Cross-tabulation of ASB intake at baseline and follow-up

ASB intake at baseline	ASB intake at follow-up			Total
	never/seldom	1-6 glasses/week	≥ 7 glasses/week	
never/seldom	55	7	1	63
1-6 glasses/week	12	12	3	27
≥ 7 glasses/week	2	4	4	10
Total	69	23	8	100

Table S4. Cross-tabulation of juice intake at baseline and follow-up

Juice intake at baseline	Juice intake at follow-up			Total
	never/seldom	1-6 glasses/week	≥ 7 glasses/week	
never/seldom	24	10	3	37
1-6 glasses/week	13	21	9	43
≥ 7 glasses/week	4	6	10	20
Total	41	37	22	100

Table S5. Associations between sweet beverage intake and risk of overall and subsite-specific colorectal cancer per 1 glass (250 ml) daily increase

Per 210 ml daily increase	Model 1				Model 2				
SSB	n/cases	HR	95% CI	p-value	n/cases	HR	95% CI	p-value	p-het
TOTAL CRC	62,549/714	1.02	0.86-1.21	0.796	60,259/687	1.00	0.84-1.20	0.997	
COLON CANCER	62,549/464	0.96	0.76-1.21	0.714	60,259/448	0.95	0.75-1.20	0.639	
PROXIMAL COLON CANCER	65,549/272	0.88	0.63-1.23	0.468	60,259/262	0.87	0.62-1.22	0.416	
DISTAL COLON CANCER	62,549/182	1.07	0.78-1.47	0.690	60,259/176	1.05	0.76-1.45	0.758	0.695 ¹
RECTAL CANCER	62,549/250	1.13	0.87-1.46	0.360	60,259/239	1.09	0.83-1.44	0.522	0.798 ²
ASB									
TOTAL CRC	60,064/722	0.97	0.87-1.09	0.597	57,858/692	0.97	0.87-1.09	0.667	
COLON CANCER	60,064/479	0.99	0.87-1.14	0.920	57,858/463	0.99	0.86-1.14	0.871	
PROXIMAL COLON CANCER	60,064/278	1.04	0.88-1.24	0.612	57,858/268	1.04	0.87-1.24	0.677	
DISTAL COLON CANCER	60,064/192	0.94	0.75-1.18	0.594	57,858/186	0.95	0.75-1.19	0.631	0.184 ¹
RECTAL CANCER	60,064/243	0.92	0.75-1.13	0.445	57,858/229	0.95	0.77-1.17	0.606	0.356 ²
Juice									
TOTAL CRC	68,089/822	0.88	0.77-1.00	0.050	65,391/791	0.90	0.79-1.03	0.112	
COLON CANCER	68,089/547	0.83	0.80-0.98	0.025	65,391/529	0.85	0.72-1.00	0.054	
PROXIMAL COLON CANCER	68,089/316	0.86	0.69-1.06	0.154	65,391/304	0.88	0.71-1.09	0.252	
DISTAL COLON CANCER	68,089/220	0.80	0.61-1.04	0.094	65,391/214	0.81	0.62-1.06	0.129	0.628 ¹
RECTAL CANCER	68,089/275	0.98	0.79-1.20	0.823	65,391/262	1.00	0.81-1.24	0.985	0.231 ²

¹p-value for heterogeneity between proximal and distal colon cancer

²p-value for heterogeneity between colon cancer and rectal cancer

Model 1: Adjusted for age

Model 2: Adjusted for age, education, and diabetes status at baseline

Abbreviations: SSB = sugar-sweetened beverage, n = number of observations, HR = hazard ratio, CI = confidence interval, CRC = colorectal cancer, ASB = artificially sweetened beverage

Table S6. Associations between SSB intake and risk of overall and subsite-specific colorectal cancer for participants with > 2 years of follow up

	Model 1					Model 2					
	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend	p-het
TOTAL CRC	61,781/657					59,516/634					
never/seldom	41,987/474	1.00				40,405/457	1.00				
1-6 glasses/week	16,365/147	0.86	0.72-1.04	0.119		15,789/143	0.86	0.71-1.03	0.108		
≥ 7 glasses/week	3,429/36	1.12	0.79-1.57	0.530		3,322/34	1.06	0.74-1.50	0.758		
					0.537					0.394	
COLON CANCER	61,781/430					59,516/416					
never/seldom	41,987/305	1.00				40,405/295	1.00				
1-6 glasses/week	16,365/104	0.97	0.78-1.22	0.800		15,789/100	0.94	0.75-1.19	0.624		
≥ 7 glasses/week	3,429/21	1.04	0.67-1.62	0.867		3,322/21	1.03	0.66-1.61	0.897		
					0.953					0.812	
PROXIMAL COLON CANCER	61,781/258					59,516/248					
never/seldom	41,987/181	1.00				40,405/174	1.00				
1-6 glasses/week	16,365/66	1.10	0.83-1.46	0.515		15,789/63	1.07	0.80-1.43	0.652		
≥ 7 glasses/week	3,429/11	0.98	0.53-1.80	0.936		3,322/11	0.98	0.53-1.81	0.952		
					0.698					0.793	
DISTAL COLON CANCER	61,781/163					59,516/159					
never/seldom	41,987/116	1.00				40,405/113	1.00				
1-6 glasses/week	16,365/38	0.86	0.60-1.24	0.421		15,789/37	0.83	0.57-1.21	0.339		
≥ 7 glasses/week	3,429/9	1.07	0.54-2.11	0.847		3,322/9	1.03	0.52-2.05	0.925		
					0.688					0.577	0.107 ¹
RECTAL CANCER	61,781/227					59,516/218					
never/seldom	41,987/169	1.00				40,405/162	1.00				
1-6 glasses/week	16,365/43	0.68	0.48-0.95	0.023		15,789/43	0.70	0.50-0.98	0.041		
≥ 7 glasses/week	3,429/15	1.24	0.73-2.12	0.426		3,322/13	1.10	0.62-1.95	0.738		
					0.338					0.264	0.569 ²

¹p-value for heterogeneity between proximal and distal colon cancer

²p-value for heterogeneity between colon cancer and rectal cancer

Model 1: Adjusted for age

Model 2: Adjusted for age, education, and diabetes status at baseline

Abbreviations: n = number of observations, HR = hazard ratio, CI = confidence interval, CRC = colorectal cancer

1 glass corresponds to 210 ml

Table S7. Associations between ASB intake and risk of overall and subsite-specific colorectal cancer for participants with > 2 years of follow up

	Model 1					Model 2					
	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend	p-Het
TOTAL CRC	59,326/670					57,148/644					
never/seldom	39,584/441	1.00				38,132/427	1.00				
1-6 glasses/week	14,185/177	1.18	0.99-1.40	0.068		13,664/166	1.13	0.95-1.36	0.170		
≥ 7 glasses/week	5,557/52	0.92	0.69-1.23	0.578		5,352/51	0.93	0.70-1.25	0.634		
					0.604					0.735	
COLON CANCER	59,326/446					57,148/432					
never/seldom	39,584/285	1.00				38,132/278	1.00				
1-6 glasses/week	14,185/125	1.30	1.05-1.60	0.015		13,664/119	1.25	1.00-1.55	0.046		
≥ 7 glasses/week	5,557/36	1.00	0.71-1.41	0.996		5,352/35	0.98	0.69-1.39	0.901		
					0.212					0.357	
PROXIMAL COLON CANCER	59,326/265					57,148/255					
never/seldom	39,584/171	1.00				38,132/166	1.00				
1-6 glasses/week	14,185/72	1.27	0.97-1.68	0.086		13,664/68	1.23	0.92-1.63	0.157		
≥ 7 glasses/week	5,557/22	1.05	0.67-1.63	0.839		5,352/21	1.02	0.65-1.61	0.935		
					0.296					0.431	
DISTAL COLON CANCER	59,326/173					57,148/169					
never/seldom	39,584/108	1.00				38,132/106	1.00				
1-6 glasses/week	14,185/51	1.35	0.97-1.89	0.076		13,664/49	1.30	0.92-1.82	0.135		
≥ 7 glasses/week	5,557/14	0.98	0.56-1.72	0.955		5,352/14	0.98	0.56-1.73	0.956		
					0.385					0.474	0.156 ¹
RECTAL CANCER	59,326/224					57,148/212					
never/seldom	39,584/156	1.00				38,132/149	1.00				
1-6 glasses/week	14,185/52	0.96	0.70-1.31	0.799		13,664/47	0.93	0.67-1.29	0.652		
≥ 7 glasses/week	5,557/16	0.78	0.47-1.31	0.352		5,352/16	0.85	0.50-1.42	0.527		
					0.392					0.469	0.089 ²

¹p-value for heterogeneity between proximal and distal colon cancer

²p-value for heterogeneity between colon cancer and rectal cancer

Model 1: Adjusted for age

Model 2: Adjusted for age, education, and diabetes status at baseline

Abbreviations: n = number of observations, HR = hazard ratio, CI = confidence interval, CRC = colorectal cancer

1 glass corresponds to 210 ml

Table S8. Associations between fruit juice intake and risk of overall and subsite-specific colorectal cancer for participants with > 2 years of follow up

	Model 1					Model 2					
	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend	p-het
TOTAL CRC	67,256/761					64,596/735					
never/seldom	27,353/340	1.00				26,252/323	1.00				
1-6 glasses/week	25,748/273	0.83	0.71-0.98	0.025		24,723/267	0.86	0.73-1.02	0.078		
≥ 7 glasses/week	14,155/148	0.80	0.66-0.97	0.026		13,621/145	0.84	0.69-1.02	0.074		
					0.012					0.046	
COLON CANCER	67,256/506					64,596/491					
never/seldom	27,353/229	1.00				26,252/219	1.00				
1-6 glasses/week	25,748/191	0.87	0.72-1.06	0.161		24,723/186	0.89	0.73-1.09	0.262		
≥ 7 glasses/week	14,155/86	0.69	0.54-0.89	0.004		13,621/86	0.73	0.57-0.94	0.015		
					0.004					0.016	
PROXIMAL COLON CANCER	67,256/299					64,596/288					
never/seldom	27,353/133	1.00				26,252/126	1.00				
1-6 glasses/week	25,748/119	0.95	0.74-1.21	0.673		24,723/115	0.97	0.75-1.25	0.803		
≥ 7 glasses/week	14,155/47	0.65	0.47-0.91	0.012		13,621/47	0.69	0.49-0.96	0.030		
					0.020					0.048	
DISTAL COLON CANCER	67,256/198					64,596/194					
never/seldom	27,353/92	1.00				26,252/89	1.00				
1-6 glasses/week	25,748/69	0.77	0.56-1.05	0.098		24,723/68	0.79	0.58-1.09	0.151		
≥ 7 glasses/week	14,155/37	0.75	0.51-1.09	0.124		13,621/37	0.78	0.54-1.16	0.223		
					0.076					0.152	0.812 ¹
RECTAL CANCER	67,256/255					64,596/244					
never/seldom	27,353/111	1.00				26,252/104	1.00				
1-6 glasses/week	25,748/82	0.76	0.57-1.01	0.056		24,723/81	0.80	0.60-1.07	0.140		
≥ 7 glasses/week	14,155/62	1.03	0.75-1.40	0.856		13,621/59	1.05	0.76-1.44	0.774		
					0.825					0.975	0.356 ²

¹p-value for heterogeneity between proximal and distal colon cancer

²p-value for heterogeneity between colon cancer and rectal cancer

Model 1: Adjusted for age

Model 2: Adjusted for age, education, and diabetes status at baseline

Abbreviations: n = number of observations, HR = hazard ratio, CI = confidence interval, CRC = colorectal cancer

1 glass corresponds to 210 ml

Table S9. Age-adjusted associations between sweet beverage intake and risk of overall and subsite-specific colorectal cancer in the sample size of Model 2

	SSB					ASB					Juice				
	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend
TOTAL CRC	60,259/687					57,858/692					65,391/791				
never/seldom	40,865/486	1.00				38,596/457	1.00				26,597/345	1.00			
1-6 glasses/week	16,012/160	0.88	0.74-1.06	0.172		13,837/180	1.14	0.96-1.36	0.135		25,031/295	0.88	0.75-1.03	0.109	
≥ 7 glasses/week	3,382/41	1.18	0.86-1.62	0.313		5,425/55	0.93	0.71-1.23	0.596		13,763/151	0.81	0.67-0.98	0.027	
					0.825					0.717					0.019
COLON CANCER	60,259/448					57,858/463					65,391/529				
never/seldom	40,865/313	1.00				38,596/295	1.00				26,597/233	1.00			
1-6 glasses/week	16,012/111	0.97	0.78-1.21	0.787		13,837/129	1.28	1.04-1.57	0.021		25,031/204	0.91	0.75-1.09	0.305	
≥ 7 glasses/week	3,382/24	1.10	0.72-1.66	0.667		5,425/39	1.03	0.74-1.44	0.865		13,763/92	0.73	0.57-0.93	0.010	
					0.915					0.189					0.011
PROXIMAL COLON CANCER	60,259/262					57,858/268					65,391/304				
never/seldom	40,865/182	1.00				38,596/172	1.00				26,597/131	1.00			
1-6 glasses/week	16,012/68	1.09	0.82-1.44	0.566		13,837/72	1.25	0.95-1.65	0.108		25,031/122	0.98	0.77-1.25	0.869	
≥ 7 glasses/week	3,382/12	1.01	0.56-1.81	0.984		5,425/24	1.12	0.73-1.72	0.593		13,763/51	0.72	0.51-0.99	0.044	
					0.691					0.219					0.070
DISTAL COLON CANCER	60,259/176					57,858/186					65,391/214				
never/seldom	40,865/122	1.00				38,596/116	1.00				26,597/97	1.00			
1-6 glasses/week	16,012/43	0.89	0.62-1.26	0.585		13,837/55	1.34	0.97-1.84	0.076		25,031/78	0.82	0.61-1.10	0.180	
≥ 7 glasses/week	3,382/11	1.18	0.63-2.19	0.605		5,425/15	0.96	0.56-1.65	0.891		13,763/39	0.74	0.51-1.07	0.111	
					0.932					0.422					0.081
p-heterogeneity ¹					0.155					0.112					0.572
RECTAL CANCER	60,259/239					57,858/229					65,391/262				
never/seldom	40,865/173	1.00				38,596/162	1.00				26,597/112	1.00			
1-6 glasses/week	16,012/49	0.73	0.53-1.00	0.053		13,837/51	0.90	0.65-1.23	0.502		25,031/91	0.83	0.63-1.09	0.181	
≥ 7 glasses/week	3,382/17	1.32	0.80-2.18	0.279		5,425/16	0.74	0.45-1.25	0.261		13,763/59	0.97	0.71-1.33	0.841	
					0.606					0.220					0.644
p-heterogeneity ²					0.689					0.022					0.502

¹p-value for heterogeneity between proximal and distal colon cancer

²p-value for heterogeneity between colon cancer and rectal cancer

Abbreviations: SSB = sugar-sweetened beverage, ASB = artificially sweetened beverage, n = number of observations, HR = hazard ratio, CI = confidence interval, CRC = colorectal cancer

1 glass corresponds to 210 ml

Table S10. Associations between SSB intake and risk of overall and subsite-specific colorectal cancer not censoring for missing follow-up values

	Model 1					Model 2					
	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend	p-het
TOTAL CRC	62,549/977					60,259/940					
never/seldom	42,464/648	1.00				40,865/624	1.00				
1-6 glasses/week	16,595/257	0.92	0.79-1.06	0.248		16,012/248	0.91	0.78-1.05	0.205		
≥ 7 glasses/week	3,490/72	1.24	0.97-1.58	0.085		3,382/68	1.18	0.92-1.52	0.197		
					0.646					0.917	
COLON CANCER	62,549/646					60,259/624					
never/seldom	42,464/423	1.00				40,865/409	1.00				
1-6 glasses/week	16,595/182	1.01	0.85-1.21	0.891		16,012/175	0.98	0.82-1.17	0.839		
≥ 7 glasses/week	3,490/41	1.10	0.80-1.51	0.567		3,382/40	1.06	0.76-1.47	0.730		
					0.635					0.913	
PROXIMAL COLON CANCER	62,549/384					60,259/370					
never/seldom	42,464/253	1.00				40,865/244	1.00				
1-6 glasses/week	16,595/108	1.04	0.83-1.30	0.732		16,012/104	1.02	0.81-1.29	0.857		
≥ 7 glasses/week	3,490/23	1.07	0.70-1.63	0.770		3,382/22	1.03	0.66-1.59	0.908		
					0.678					0.848	
DISTAL COLON CANCER	62,549/249					60,259/241					
never/seldom	42,464/160	1.00				40,865/155	1.00				
1-6 glasses/week	16,595/73	1.02	0.77-1.35	0.895		16,012/70	0.97	0.73-1.29	0.825		
≥ 7 glasses/week	3,490/16	1.08	0.64-1.80	0.778		3,382/16	1.04	0.62-1.74	0.896		
					0.784					0.963	0.273 ¹
RECTAL CANCER	62,549/331					60,259/316					
never/seldom	42,464/225	1.00				40,865/215	1.00				
1-6 glasses/week	16,595/75	0.75	0.58-0.97	0.030		16,012/73	0.77	0.59-1.01	0.056		
≥ 7 glasses/week	3,490/31	1.49	1.02-2.17	0.038		3,382/28	1.41	0.95-2.10	0.089		
					0.899					0.977	0.921 ²

¹p-value for heterogeneity between proximal and distal colon cancer

²p-value for heterogeneity between colon cancer and rectal cancer

Model 1: Adjusted for age

Model 2: Adjusted for age, education, and diabetes status at baseline

Abbreviations: n = number of observations, HR = hazard ratio, CI = confidence interval, CRC = colorectal cancer

1 glass corresponds to 210 ml

Table S11. Associations between ASB intake and risk of overall and subsite-specific colorectal cancer not censoring for missing follow-up values

	Model 1					Model 2					
	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend	p-het
TOTAL CRC	60,064/958					57,858/920					
never/seldom	40,064/617	1.00				38,596/597	1.00				
1-6 glasses/week	14,367/263	1.18	1.02-1.36	0.027		13,837/247	1.13	0.97-1.31	0.106		
≥ 7 glasses/week	5,633/78	0.91	0.72-1.15	0.430		5,425/76	0.90	0.71-1.15	0.406		
					0.608					0.868	
COLON CANCER	60,064/642					57,858/620					
never/seldom	40,064/406	1.00				38,596/395	1.00				
1-6 glasses/week	14,367/183	1.25	1.05-1.49	0.011		13,837/173	1.20	1.00-1.44	0.049		
≥ 7 glasses/week	5,633/53	0.95	0.71-1.26	0.713		5,425/52	0.94	0.70-1.25	0.658		
					0.316					0.520	
PROXIMAL COLON CANCER	60,064/383					57,858/369					
never/seldom	40,064/241	1.00				38,596/235	1.00				
1-6 glasses/week	14,367/109	1.28	1.02-1.61	0.032		13,837/102	1.22	0.96-1.54	0.103		
≥ 7 glasses/week	5,633/33	1.02	0.71-1.46	0.931		5,425/32	0.99	0.69-1.44	0.979		
					0.250					0.427	
DISTAL COLON CANCER	60,064/248					57,858/240					
never/seldom	40,064/157	1.00				28,596/152	1.00				
1-6 glasses/week	14,367/72	1.24	0.94-1.64	0.128		13,837/69	1.20	0.90-1.60	0.204		
≥ 7 glasses/week	5,633/19	0.85	0.53-1.37	0.507		5,425/19	0.86	0.53-1.39	0.541		
					0.792					0.868	0.127 ¹
RECTAL CANCER	60,064/316					57,858/300					
never/seldom	40,064/211	1.00				38,596/202	1.00				
1-6 glasses/week	14,367/80	1.03	0.80-1.34	0.810		13,837/74	1.00	0.76-1.31	1.000		
≥ 7 glasses/week	5,633/25	0.84	0.55-1.27	0.399		5,425/24	0.84	0.55-1.28	0.416		
					0.594					0.527	0.159 ²

¹p-value for heterogeneity between proximal and distal colon cancer

²p-value for heterogeneity between colon cancer and rectal cancer

Model 1: Adjusted for age

Model 2: Adjusted for age, education, and diabetes status at baseline

Abbreviations: n = number of observations, HR = hazard ratio, CI = confidence interval, CRC = colorectal cancer

1 glass corresponds to 210 ml

Table S12. Associations between juice intake and risk of overall and subsite-specific colorectal cancer not censoring for missing follow-up values

	Model 1					Model 2					
	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend	p-het
TOTAL CRC	68,089/1,070					65,391/1,031					
never/seldom	27,709/463	1.00				26,597/443	1.00				
1-6 glasses/week	26,075/413	0.91	0.79-1.04	0.152		25,031/400	0.93	0.81-1.06	0.290		
≥ 7 glasses/week	14,305/194	0.79	0.67-0.94	0.008		13,763/188	0.82	0.69-0.97	0.023		
					0.007					0.023	
COLON CANCER	68,089/721					65,391/697					
never/seldom	27,709/313	1.00				26,597/301	1.00				
1-6 glasses/week	26,075/287	0.94	0.80-1.10	0.435		25,031/277	0.95	0.81-1.12	0.553		
≥ 7 glasses/week	14,305/121	0.74	0.60-0.91	0.004		13,763/119	0.77	0.62-0.95	0.014		
					0.007					0.022	
PROXIMAL COLON CANCER	68,089/426					65,391/409					
never/seldom	27,709/184	1.00				26,597/176	1.00				
1-6 glasses/week	26,075/172	0.97	0.79-1.19	0.767		25,031/164	0.97	0.78-1.20	0.784		
≥ 7 glasses/week	14,305/70	0.73	0.55-0.96	0.023		13,763/69	0.75	0.57-1.00	0.046		
					0.038					0.069	
DISTAL COLON CANCER	68,089/280					65,391/273					
never/seldom	27,709/124	1.00				26,597/120	1.00				
1-6 glasses/week	26,075/108	0.87	0.68-1.13	0.309		25,031/106	0.90	0.69-1.17	0.441		
≥ 7 glasses/week	14,305/48	0.73	0.53-1.02	0.069		13,763/47	0.77	0.55-1.08	0.126		
					0.062					0.124	0.709 ¹
RECTAL CANCER	68,089/349					65,391/334					
never/seldom	27,709/150	1.00				26,597/142	1.00				
1-6 glasses/week	26,075/126	0.84	0.67-1.07	0.163		25,031/123	0.88	0.69-1.13	0.314		
≥ 7 glasses/week	14,305/73	0.92	0.70-1.22	0.569		13,763/69	0.93	0.70-1.24	0.625		
					0.409					0.507	0.705 ²

¹p-value for heterogeneity between proximal and distal colon cancer

²p-value for heterogeneity between colon cancer and rectal cancer

Model 1: Adjusted for age

Model 2: Adjusted for age, education, and diabetes status at baseline

Abbreviations: n = number of observations, HR = hazard ratio, CI = confidence interval, CRC = colorectal cancer

1 glass corresponds to 210 ml

Table S13. Associations between sweet beverage intake and risk of colorectal cancer by groups of baseline age, education level, and diabetes status

	SSB					ASB					Juice				
	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend
41-50 y¹	29,401/237					28,137/239					31,046/262				
never/seldom	18,902/153	1.00				18,002/154	1.00				11,952/107	1.00			
1-6 glasses/week	8,635/65	1.00	0.74-1.34	0.975		7,219/62	0.99	0.74-1.34	0.958		12,434/112	0.97	0.75-1.27	0.849	
≥ 7 glasses/week	1,864/19	1.50	0.93-2.43	0.100		2,916/23	0.93	0.60-1.45	0.757		6,660/43	0.67	0.47-0.96	0.028	
					0.278					0.789					0.046
51-61 y¹	34,492/493					33,256/500					38,301/577				
never/seldom	24,462/361	1.00				22,947/333	1.00				16,283/257	1.00			
1-6 glasses/week	8,314/110	0.85	0.68-1.05	0.131		7,462/131	1.22	0.99-1.49	0.059		14,133/201	0.85	0.71-1.02	0.083	
≥ 7 glasses/week	1,716/22	0.88	0.67-1.35	0.547		2,847/36	0.91	0.65-1.29	0.602		7,885/119	0.91	0.73-1.13	0.399	
					0.160					0.552					0.247
< 10 y EDUCATION²	11,316/157					10,642/145					12,244/167				
never/seldom	6,836/100	1.00				6,549/85	1.00				5,645/71	1.00			
1-6 glasses/week	3,538/46	0.99	0.70-1.41	0.964		2,923/47	1.27	0.89-1.82	0.193		4,559/78	1.35	0.98-1.86	0.069	
≥ 7 glasses/week	942/11	0.99	0.53-1.86	0.981		1,170/13	0.93	0.52-1.68	0.822		2,040/18	0.67	0.40-1.12	0.127	
					0.966					0.644					0.544
10-12y EDUCATION²	21,315/230					20,461/235					23,240/281				
never/seldom	13,969/164	1.00				13,113/155	1.00				9,881/131	1.00			
1-6 glasses/week	6,046/49	0.71	0.51-0.97	0.034		5,231/60	1.00	0.74-1.35	0.982		8,791/90	0.73	0.56-0.96	0.024	
≥ 7 glasses/week	1,300/17	1.26	0.76-2.07	0.376		2,117/20	0.85	0.53-1.36	0.495		4,568/60	0.93	0.68-1.26	0.617	
					0.458					0.601					0.320
> 12y EDUCATION²	27,628/300					26,755/312					29,907/343				
never/seldom	20,060/222	1.00				18,934/217	1.00				11,071/143	1.00			
1-6 glasses/week	6,428/65	0.95	0.71-1.25	0.694		5,683/73	1.18	0.91-1.54	0.218		11,681/127	0.82	0.65-1.04	0.104	
≥ 7 glasses/week	1,140/13	1.16	0.66-2.03	0.610		2,138/22	0.99	0.64-1.54	0.970		7,155/73	0.76	0.57-1.01	0.058	
					0.963					0.524					0.043
NO DIABETES DIAGNOSIS³	59,447/678					56,709/678					64,401/778				
never/seldom	40,111/479	1.00				38,233/455	1.00				25,965/338	1.00			

1-6 glasses/week	15,964/159	0.86	0.72-1.04	0.116		13,359/172	1.12	0.94-1.36	0.208		24,776/289	0.87	0.75-1.02	0.088	
≥ 7 glasses/week	3,372/40	1.12	0.81-1.55	0.497		5,117/51	0.91	0.68-1.21	0.512		13,660/151	0.82	0.67-0.99	0.038	
					0.571						0.875				0.025

¹Adjusted for age, education, and diabetes status at baseline

²Adjusted for age and diabetes status at baseline

³Adjusted for age and education

Abbreviations: SSB = sugar-sweetened beverage, ASB = artificially sweetened beverage, n = number of observations, HR = hazard ratio, CI = confidence interval, CRC = colorectal cancer

1 glass corresponds to 210 ml

Table S14. Associations between sweet beverage intake and risk of overall and subsite-specific colorectal cancer adjusted for established risk factors

	SSB					ASB					Juice				
	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend	n/cases	HR	95% CI	p-value	p-trend
TOTAL CRC	54,888/625					52,889/634					59,169/719				
never/seldom	37,466/448	1.00				35,427/423	1.00				24,094/316	1.00			
1-6 glasses/week	14,419/139	0.85	0.70-1.03	0.102		12,554/161	1.09	0.91-1.31	0.363		22,674/268	0.90	0.76-1.06	0.200	
≥ 7 glasses/week	3,003/38	1.17	0.84-1.65	0.350		4,908/50	0.88	0.65-1.18	0.390		12,401/135	0.81	0.66-1.00	0.049	
					0.680					0.837					0.041
COLON CANCER	54,888/410					52,889/424					59,169/480				
never/seldom	37,466/289	1.00				35,427/271	1.00				24,094/214	1.00			
1-6 glasses/week	14,419/97	0.89	0.71-1.14	0.369		12,554/117	1.21	0.97-1.50	0.093		22,674/184	0.92	0.75-1.12	0.392	
≥ 7 glasses/week	3,003/24	1.10	0.72-1.68	0.662		4,908/36	0.94	0.66-1.34	0.753		12,401/82	0.74	0.57-0.96	0.022	
					0.784					0.558					0.026
PROXIMAL COLON CANCER	54,888/243					52,889/249					59,169/283				
never/seldom	37,466/170	1.00				35,427/160	1.00				24,094/124	1.00			
1-6 glasses/week	14,419/61	1.03	0.78-1.39	0.861		12,554/66	1.19	0.89-1.59	0.236		22,674/111	0.98	0.75-1.30	0.859	
≥ 7 glasses/week	3,003/12	0.99	0.55-1.79	0.980		4,908/23	1.06	0.68-1.65	0.802		12,401/48	0.75	0.54-1.06	0.101	
					0.923					0.439					0.138
DISTAL COLON CANCER	54,888/158					52,889/166					59,169/187				
never/seldom	37,466/111	1.00				35,427/104	1.00				24,094/86	1.00			
1-6 glasses/week	14,419/36	0.79	0.54-1.16	0.236		12,554/49	1.27	0.90-1.79	0.173		22,674/69	0.83	0.60-1.14	0.257	
≥ 7 glasses/week	3,003/11	1.21	0.64-2.28	0.550		4,908/13	0.86	0.48-1.54	0.615		12,401/32	0.71	0.47-1.08	0.107	
					0.740					0.770					0.087
p-heterogeneity ¹					0.106					0.100					0.503
RECTAL CANCER	54,888/215					52,889/210					59,169/239				
never/seldom	37,466/159	1.00				35,427/152	1.00				24,094/102	1.00			
1-6 glasses/week	14,419/42	0.76	0.53-1.07	0.118		12,554/44	0.87	0.62-1.22	0.420		22,674/84	0.86	0.64-1.15	0.312	
≥ 7 glasses/week	3,003/14	1.33	0.76-2.33	0.311		4,908/14	0.75	0.43-1.30	0.308		12,401/53	0.96	0.69-1.35	0.835	
					0.743					0.225					0.692
p-heterogeneity ²					0.977					0.104					0.430

¹p-value for heterogeneity between proximal and distal colon cancer

²p-value for heterogeneity between colon cancer and rectal cancer

Analyses adjusted for age, education, diabetes status, smoking status, physical activity level, consumption of red and processed meat, alcohol, fiber and calcium at baseline

Abbreviations: SSB = sugar-sweetened beverage, ASB = artificially sweetened beverage, n = number of observations, HR = hazard ratio, CI = confidence interval, CRC = colorectal cancer

1 glass corresponds to 210 ml