

**TABLE S1** Subgroup analyses of the association between flavan-3-ols and OA were stratified by sex, age, race, BMI.

<b>Character</b>	<b>OR(95%CI)</b>	<b>P for interaction</b>
<b>Sex</b>		0.265
Female	1.000(1.000,1.001)	
Male	1.000(0.999, 1.000)	
<b>Age</b>		0.494
Q1	1.000(1.000, 1.001)	
Q2	1.000(0.999, 1.001)	
Q3	1.000(1.000, 1.001)	
Q4	1.000(0.999,1.001)	
<b>Race</b>		0.646
Non-Hispanic white	1.000(1.000, 1.001)	
Non-Hispanic black	1.000(0.999, 1.002)	
Mexican American	<b>1.001(1.000, 1.001)</b>	
Other Hispanic	0.998(0.996, 1.001)	
Other race	1.000(1.000, 1.001)	
<b>BMI</b>		0.126
Not overweight	1.000(0.999,1.001)	
Overweight	0.999(0.999, 1.000)	
Obesity	1.000(1.000,1.001)	

The bold values refer to  $p < 0.05$ . Adjusted for sex, age, race, education level, PIR, BMI, physical activities, smoking, alcohol drinking, diabetes, hypertension, NSAIDs use, glucocorticoids use, tramadol use, vitamin D intake, vitamin K intake, dietary fiber intake. BMI: body mass index. CI: confidence intervals. NSAIDs: non-steroidal anti-inflammatory drugs. OA: osteoarthritis. OR: odds ratio. PIR: poverty income ratio. Q1: 40-50. Q2: 50-60. Q3: 60-70. Q4: 70-80.

**TABLE S2** Subgroup analyses of the association between EGC and OA were stratified by sex, age, race, BMI.

<b>Character</b>	<b>OR(95%CI)</b>	<b>P for interaction</b>
<b>Sex</b>		0.221
Female	<b>1.003(1.000,1.006)</b>	
Male	1.001(0.997, 1.005)	
<b>Age</b>		0.200
Q1	<b>1.004(1.001, 1.006)</b>	
Q2	1.000(0.995, 1.005)	
Q3	<b>1.003(1.000, 1.006)</b>	
Q4	0.997(0.991,1.003)	
<b>Race</b>		0.266
Non-Hispanic white	<b>1.003(1.000, 1.006)</b>	
Non-Hispanic black	1.002(0.991,1.015)	
Mexican American	<b>1.008(1.001, 1.015)</b>	
Other Hispanic	0.987(0.966, 1.008)	
Other race	1.002(0.998, 1.006)	
<b>BMI</b>		0.109
Not overweight	1.002(0.999,1.006)	
Overweight	0.995(0.988, 1.002)	
Obesity	<b>1.003(1.001,1.006)</b>	

The bold values refer to  $p < 0.05$ . Adjusted for sex, age, race, education level, PIR, BMI, physical activities, smoking, alcohol drinking, diabetes, hypertension, NSAIDs use, glucocorticoids use, tramadol use, vitamin D intake, vitamin K intake, dietary fiber intake. BMI: body mass index. CI: confidence intervals. EGC: epigallocatechin. NSAIDs: non-steroidal anti-inflammatory drugs. OA: osteoarthritis. OR: odds ratio. PIR: poverty income ratio. Q1: 40-50. Q2: 50-60. Q3: 60-70. Q4: 70-80.

**TABLE S3** Subgroup analyses of the association between EGCG and OA were stratified by sex, age, race, BMI.

<b>Character</b>	<b>OR(95%CI)</b>	<b>P for interaction</b>
<b>Sex</b>		0.288
Female	<b>1.002(1.000,1.003)</b>	
Male	1.000(0.998, 1.003)	
<b>Age</b>		0.117
Q1	<b>1.002(1.001, 1.003)</b>	
Q2	1.000(0.998, 1.002)	
Q3	<b>1.002(1.000, 1.003)</b>	
Q4	0.998(0.995,1.002)	
<b>Race</b>		0.086
Non-Hispanic white	<b>1.002(1.001, 1.003)</b>	
Non-Hispanic black	1.002(0.997,1.008)	
Mexican American	<b>1.004(1.001, 1.008)</b>	
Other Hispanic	0.992(0.979, 1.005)	
Other race	1.001(0.999, 1.003)	
<b>BMI</b>		0.105
Not overweight	1.001(1.000,1.003)	
Overweight	0.997(0.993, 1.001)	
Obesity	<b>1.002(1.000,1.003)</b>	

The bold values refer to  $p < 0.05$ . Adjusted for sex, age, race, education level, PIR, BMI, physical activities, smoking, alcohol drinking, diabetes, hypertension, NSAIDs use, glucocorticoids use, tramadol use, vitamin D intake, vitamin K intake, dietary fiber intake. BMI: body mass index. CI: confidence intervals. EGCG: epigallocatechin-3-gallate. NSAIDs: non-steroidal anti-inflammatory drugs. OA: osteoarthritis. OR: odds ratio. PIR: poverty income ratio. Q1: 40-50. Q2: 50-60. Q3: 60-70. Q4: 70-80.

**TABLE S4** Subgroup analyses of the association between ECG and OA were stratified by sex, age, race, BMI.

<b>Character</b>	<b>OR(95%CI)</b>	<b>P for interaction</b>
<b>Sex</b>		0.214
Female	<b>1.005(1.000,1.010)</b>	
Male	1.001(0.994, 1.007)	
<b>Age</b>		0.224
Q1	<b>1.006(1.002, 1.009)</b>	
Q2	1.000(0.992, 1.008)	
Q3	<b>1.005(1.000, 1.009)</b>	
Q4	0.996(0.986,1.006)	
<b>Race</b>		0.269
Non-Hispanic white	1.004(1.000, 1.009)	
Non-Hispanic black	1.004(0.986,1.023)	
Mexican American	<b>1.012(1.001, 1.023)</b>	
Other Hispanic	0.974(0.934, 1.015)	
Other race	1.003(0.996, 1.011)	
<b>BMI</b>		0.101
Not overweight	1.004(0.997,1.010)	
Overweight	0.993(0.983, 1.003)	
Obesity	<b>1.005(1.002,1.009)</b>	

The bold values refer to  $p < 0.05$ . Adjusted for sex, age, race, education level, PIR, BMI, physical activities, smoking, alcohol drinking, diabetes, hypertension, NSAIDs use, glucocorticoids use, tramadol use, vitamin D intake, vitamin K intake, dietary fiber intake. BMI: body mass index. CI: confidence intervals. ECG: epicatechin-3-gallate. NSAIDs: non-steroidal anti-inflammatory drugs. OA: osteoarthritis. OR: odds ratio. PIR: poverty income ratio. Q1: 40-50. Q2: 50-60. Q3: 60-70. Q4: 70-80.

**TABLE S5** Subgroup analyses of the association between GC and OA were stratified by sex, age, race, BMI.

<b>Character</b>	<b>OR(95%CI)</b>	<b>P for interaction</b>
<b>Sex</b>		0.265
Female	1.025(0.982,1.070)	
Male	0.995(0.950, 1.042)	
<b>Age</b>		0.310
Q1	1.028(0.974, 1.084)	
Q2	0.975(0.924, 1.029)	
Q3	1.031(0.984, 1.080)	
Q4	0.977(0.908,1.051)	
<b>Race</b>		0.371
Non-Hispanic white	1.015(0.973, 1.058)	
Non-Hispanic black	1.020(0.901,1.154)	
Mexican American	<b>1.083(1.008, 1.164)</b>	
Other Hispanic	0.814(0.581, 1.139)	
Other race	1.025(0.961, 1.092)	
<b>BMI</b>		0.082
Not overweight	1.004(0.943,1.070)	
Overweight	0.959(0.905, 1.016)	
Obesity	1.031(0.996,1.067)	

The bold values refer to  $p < 0.05$ . Adjusted for sex, age, race, education level, PIR, BMI, physical activities, smoking, alcohol drinking, diabetes, hypertension, NSAIDs use, glucocorticoids use, tramadol use, vitamin D intake, vitamin K intake, dietary fiber intake. BMI: body mass index. CI: confidence intervals. GC: gallic acid. NSAIDs: non-steroidal anti-inflammatory drugs. OA: osteoarthritis. OR: odds ratio. PIR: poverty income ratio. Q1: 40-50. Q2: 50-60. Q3: 60-70. Q4: 70-80.

**TABLE S6** Subgroup analyses of the association between EC and OA were stratified by sex, age, race, BMI.

<b>Character</b>	<b>OR(95%CI)</b>	<b>P for interaction</b>
<b>Sex</b>		0.201
Female	<b>1.012(1.002,1.022)</b>	
Male	0.998(0.982, 1.015)	
<b>Age</b>		0.244
Q1	<b>1.011(1.001, 1.021)</b>	
Q2	1.004(0.991, 1.017)	
Q3	<b>1.012(1.001, 1.022)</b>	
Q4	0.996(0.980,1.013)	
<b>Race</b>		0.365
Non-Hispanic white	<b>1.010(1.000, 1.019)</b>	
Non-Hispanic black	1.004(0.969,1.039)	
Mexican American	1.020(0.996, 1.045)	
Other Hispanic	1.004(0.969, 1.040)	
Other race	1.007(0.993, 1.020)	
<b>BMI</b>		0.803
Not overweight	1.009(0.996,1.021)	
Overweight	0.999(0.982, 1.016)	
Obesity	1.009(1.000,1.018)	

The bold values refer to  $p < 0.05$ . Adjusted for sex, age, race, education level, PIR, BMI, physical activities, smoking, alcohol drinking, diabetes, hypertension, NSAIDs use, glucocorticoids use, tramadol use, vitamin D intake, vitamin K intake, dietary fiber intake. BMI: body mass index. CI: confidence intervals. EC: epicatechin. NSAIDs: non-steroidal anti-inflammatory drugs. OA: osteoarthritis. OR: odds ratio. PIR: poverty income ratio. Q1: 40-50. Q2: 50-60. Q3: 60-70. Q4: 70-80.