

**Table S1. Phenolic compounds in µg/g dry mass of raw and cooked *B. carinata* leaves.**  
Values in bold indicate statistical significant difference ( $p \leq 0.05$ ).

	raw	cooked
Caffeoylquinic acid (chlogensaeure)	<b>47±2</b>	<b>38±2</b>
5-p-coumaroylquinic acid	90±40	43±5
Quercetin-3-O-sophoroside-7-O-D-glucoside	49±20	38±28
p-coumaroyl-glycoside	211±123	156±122
Kaempferol-3-O-sophoroside-7-O-D-glucoside	<b>123±117</b>	<b>473±131</b>
Kaempferol-3-O-sophoroside-7-O-diglucoside	27±25	66±9
Isorhamnetin-3-O-D-glucoside-7-O-D-glucoside	184±91	132±29
Kaempferol-3-O-hydroxyferuoyl-sophoroside-7-O-D-diglucoside	411±86	347±31
Kaempferol-3-O-hydroxyferuoyl-sophoroside-7-O-D-glucoside	756±157	639±57
Kaempferol-3-O-caffeoyl-sophoroside-7-O-D-glucoside	308±41	160±129
Isorhamnetin-3-O-hydroxyferuloyl-sophoroside-7-O-glucoside	124±46	219±173
Isorhamnetin-3-O-caffeoyl-sophoroside-7-O-diglucoside	129±82	119±24
Isorhamnetin-3-O-hydroxyferuloyl-sophoroside-7-O-diglucoside	191±26	235±139
Kaempferol-3-O-D-glucoside-7-O-D-glucoside	162±202	54±38
Kaempferol-3-O-sinapoyl-sophoroside-7-O-diglucoside	326±150	197±33
Kaempferol-3-O-feruloyl-sophoroside-7-O-diglucoside	<b>280±45</b>	<b>77±6</b>
Isorhamnetin-3-O-caffeoyl-sophoroside-7-O-D-glucoside	773±123	1058±210
Kaempferol-3-O-sinapoyl-sophoroside-7-O-D-glucoside	457±41	280±180
Kaempferol-3-O-feruloyl-sophoroside-7-O-D-glucoside	36±5	190±278
Kaempferol-3-O-coumaroyl-sophoroside-7-O-D-glucoside	52±4	166±157
Isorhamnetin-3-O-sinapoyl-sophoroside-7-O-glucoside	67±8	63±2
Isorhamnetin-3-O-feruloyl-sophoroside-7-O-glucoside	29±4	71±62
Isorhamnetin-3-O-coumaroyl-sophoroside-7-O-glucoside	55±9	66±4
Isorhamnetin-3-O-sophoroside	21±0	21±0

Kaempferol-3-O-hydroxyferuloyl-sophoroside	<b>25±8</b>	<b>9±4</b>
Isorhamnetin-3-O-sophoroside	21±0	21±0
Kaempferol-3-O-caffeoyl-sophoroside	4±0	4±0
Kaempferol-3-O-sophoroside-7-sinapoyl-glucoside	84±88	77±19
Kaempferol-3-O-sinapoyl-sophoroside	4±0	4±0
Kaempferol-3-O-feruloyl-sophoroside	4±0	4±0
Quercetin-3-O-disinapoyl-triglucoside-7-O-D-glucoside	<b>221±19</b>	<b>172±8</b>
Kaempferol-3-O-disinapoyl-triglucoside-7-O-D-glucoside	<b>373±37</b>	<b>268±5</b>
Disinapoyl-gentiobioside	<b>77±3</b>	<b>46±0</b>
Sinapoyl-feruloyl-gentiobiose	<b>65±4</b>	<b>43±1</b>
Trisinapoyl-gentiobioside	41±10	34±3
Disinapoyl-feruloyl-gentiobiose	36±8	31±0

**Table S2. Special GLS/ITC-free and polyphenol-reduced diet.****A: Vegetables and fruits to be avoided during wash out period**

<b>Vegetable or fruit</b>	<b>Scientific name</b>
Leaf mustards	<i>Brassica carinata</i> , <i>B. juncea</i> , <i>B. perviridis</i> , <i>B. narinosa</i> , <i>B. nigra</i> , <i>B. campestris</i>
Cauliflower	<i>Brassica oleracea</i> var. <i>botrytis</i>
Broccoli	<i>Brassica oleracea</i> var. <i>italica</i>
Watercress	<i>Nasturtium officinale</i>
Chinese cabbage	<i>Brassica rapa</i> ssp. <i>pekinensis</i>
Garden cress	<i>Lepidium sativum</i>
Kale	<i>Brassica oleracea</i> var. <i>sabellica</i>
Herb turnip	<i>Brassica rapa</i> ssp. <i>rapa</i>
Caper	<i>Capparis spinosa</i>
Nasturtium	<i>Tropaeolum</i> L.
Kohlrabi	<i>Brassica oleracea</i> var. <i>gongylodes</i>
Turnip	<i>Brassica napus</i> ssp. <i>rapifera</i>
Cabbage	<i>Brassica oleracea</i> var. <i>capitata</i>
White turnip	<i>Brassica rapa</i> ssp. <i>rapa</i>
Horseradish	<i>Armoracia rusticana</i>
Mizuna	<i>Brassica rapa</i> var. <i>japonica</i>
Green Chinese cabbage (Pak Choi)	<i>Brassica rapa</i> ssp. <i>chinensis</i>
Papaya	<i>Carica papaya</i>
Radish	<i>Raphanus sativus</i> var. <i>sativus</i>
Rape (rape seed or oil or leaves)	<i>Brassica napus</i>
Bunch or Japanese radish	<i>Raphanus sativus</i> var. <i>niger</i>
Brussels sprouts	<i>Brassica oleracea</i> var. <i>gemmifera</i>
Red cabbage	<i>Brassica oleracea</i> var. <i>capitata</i> var. <i>rubra</i>
Turnip greens	<i>Brassica rapa</i> var. <i>rapa</i>
Rocket (broad, thick leaf)	<i>Diplotaxis muralis</i>
Rocket (arugula)	<i>Eruca sativa</i> (früher: <i>Rucola coltivata</i> )
Rocket (narrow-leaved, wild rocket)	<i>Diplotaxis tenuifolia</i>
Mustards	<i>Sinapis</i> L.
White cabbage	<i>Brassica oleracea</i> var. <i>capitata</i> var. <i>alba</i>
Savoy cabbage	<i>Brassica oleracea</i> var. <i>sabauda</i>

## **B: Permitted meals during the intervention period**

### **Foods**

White flour bread or buns  
Pasta (durum wheat)  
Rice, semolina, barley  
Potatoes (peeled) and potato products  
Meat and Fish  
Eggs (maximum 2 per day)  
Sausage (moderate)  
Cheese (moderate), fresh cheese  
Quark, yoghurt (natural)  
Honey  
Spices (moderate)  
Cucumber (peeled)  
Pretzel salt sticks  
Rice waffles  
Butter cookies

### **Drinks**

Water  
250ml coffee or tea per day (= approx. 2 cups or 1 mug; also decaffeinated coffee counts!)  
Sodas (not caffeinated, without added vitamins)  
Milk (moderate)