

Annex

Summary of the strength of evidence for obesity, type 2 diabetes, cardiovascular disease (CVD), cancer, dental disease and osteoporosis^a

	Obesity	Type 2 diabetes	CVD	Cancer	Dental disease	Osteoporosis
Energy and fats						
High intake of energy-dense foods	C↑					
Saturated fatty acids		P↑	C↑ ^b			
Trans fatty acids			C↑			
Dietary cholesterol			P↑			
Myristic and palmitic acid			C↑			
Linoleic acid			C↓			
Fish and fish oils (EPA and DHA)			C↓			
Plant sterols and stanols			P↓			
α-Linolenic acid			P↓			
Oleic acid			P↓			
Stearic acid			P-NR			
Nuts (unsalted)			P↓			
Carbohydrate						
High intake of NSP (dietary fibre)	C↓	P↓	P↓			
Free sugars (frequency and amount)					C↑ ^c	
Sugar-free chewing gum					P↓ ^c	
Starch ^d					C-NR	
Wholegrain cereals			P↓			
Vitamins						
Vitamin C deficiency					C↑ ^e	
Vitamin D					C↓ ^f	C↓ ^g
Vitamin E supplements			C-NR			
Folate			P↓			
Minerals						
High sodium intake			C↑			
Salt-preserved foods and salt				P↑ ^h		
Potassium			C↓			
Calcium						C↓ ^g
Fluoride, local					C↓ ^c	
Fluoride, systemic					C↓ ^c	P-NR ^g
Fluoride, excess					C↑ ^f	
Hypocalcaemia					P↑ ^f	
Meat and fish						
Preserved meat				P↑ ⁱ		
Chinese-style salted fish				C↑ ^j		

	Obesity	Type 2 diabetes	CVD	Cancer	Dental disease	Osteoporosis
Fruits (including berries) and vegetables						
Fruits (including berries) and vegetables	C↓ ^k	P↓ ^k	C↓	P↓ ^l		
Whole fresh fruits					P-NR ^c	
Beverages, non-alcoholic						
Sugars-sweetened soft drinks and fruit juices	P↑				P↑ ^m	
Very hot (thermally) drinks (and food)				P↑ ⁿ		
Unfiltered boiled coffee			P↑			
Beverages, alcoholic						
High alcohol intake			C↑ ^o	C↑ ^p		C↑ ^g
Low to moderate alcohol intake			C↓ ^q			
Other food-borne						
Aflatoxins				C↑ ^r		
Weight and physical activity						
Abdominal obesity		C↑				
Overweight and obesity		C↑	C↑	C↑ ^s		
Voluntary weight loss in overweight and obese people		C↓				
Low body weight						C↑ ^g
Physical activity, regular	C↓	C↓	C↓	C↓ ⁱ P↓ ^t		C↓ ^g
Physical inactivity/sedentary lifestyle	C↑	C↑				
Other factors						
Exclusive breastfeeding	P↓					
Maternal diabetes		C↑				
Intrauterine growth retardation		P↑				
Good oral hygiene/absence of plaque					C↓ ^e	
Hard cheese					P↓ ^c	
Environmental variables						
Home and school environments that support healthy food choices for children	P↓					
Heavy marketing of energy-dense foods, and fast-food outlets	P↑					
Adverse socioeconomic conditions	P↑					

C↑: Convincing increasing risk; C↓: Convincing decreasing risk; C-NR: Convincing, no relationship; P↑: Probable increasing risk; P↓: Probable decreasing risk; P-NR: Probable, no relationship; EPA: eicosapentaenoic acid; DHA: docosahexaenoic acid; NSP: non-starch polysaccharides.

- a Only convincing (C) and probable (P) evidence are included in this summary table.
- b Evidence also summarized for selected specific fatty acids, see myristic and palmitic acid.
- c For dental caries.
- d Includes cooked and raw starch foods, such as rice, potatoes and bread. Excludes cakes, biscuits and snacks with added sugar.
- e For periodontal disease.
- f For enamel developmental defects.
- g In populations with high fracture incidence only; applies to men and women more than 50-60 years old.
- h For stomach cancer.
- i For colorectal cancer.
- j For nasopharyngeal cancer.
- k Based on the contributions of fruits and vegetables to non-starch polysaccharides.
- l For cancer of the oral cavity, oesophagus, stomach and colorectum.
- m For dental erosion.
- n For cancer of the oral cavity, pharynx and oesophagus.
- o For stroke.
- p For cancer of the oral cavity, pharynx, larynx, oesophagus, liver and breast.
- q For coronary heart disease.
- r For liver cancer.
- s For cancer of the oesophagus, colorectum, breast (in postmenopausal women), endometrium and kidney.
- t For breast cancer.