



Analysing research on cancer prevention and survival

SUMMARY OF STRONG EVIDENCE ON DIET, NUTRITION, **PHYSICAL ACTIVITY AND THE PREVENTION OF CANCER**

To reference this matrix please use the following citation: World Cancer Research Fund/ American Institute for Cancer Research. Continuous Update Project: Diet, Nutrition, Physical Activity and the Prevention of Cancer. Summary of Strong Evidence. Available at: wcrf.org/cupmatrix accessed on DD-MM-YYYY Abbreviation: SLR, systematic literature review.	Wholegrains	Foods containing dietary fibre	Aflatoxins	Foods containing beta-carotene	Non-starchy vegetables or fruit (aggregated) ²	Red meat	Processed meat	Cantonese-style salted fish	Dairy products	Foods preserved by salting	Arsenic in drinking water	Mate	Coffee	Sugar sweetened drinks	Alcoholic drinks	'Mediterranean type' dietary pattern	'Western type' diet	'Fast foods'	Glycaemic load	High-dose beta-carotene supplements	Beta-carotene	Calcium supplements	Physical activity (moderate and vigorous)	Vigorous physical activity	Walking	Screen time (children) ¹⁵	Screen time (adults) ¹⁵	Adult body fatness ¹⁶	Body fatness in young adulthood ¹⁹	Adult weight gain	Adult attained height ²¹	Greater birthweight	Lactation ²²	Having been breastfed
MOUTH, PHARYNX, LARYNX 2018																																		
NASOPHARYNX 2017 (SLR)																																		
OESOPHAGUS (ADENOCARCINOMA) 2016																																		
OESOPHAGUS (SQUAMOUS CELL Carcinoma) 2016																																		
LUNG 2017																				10														
STOMACH 2016															5													17						
PANCREAS 2012																																		
GALLBLADDER 2015																																		
LIVER 2015															5																			
COLORECTUM 2017									4						6							12	13											
BREAST PREMENOPAUSE 2017															7																			
BREAST POSTMENOPAUSE 2017															7																			
OVARY 2014																																		
ENDOMETRIUM 2013																																		
PROSTATE 2014																					11							18						
KIDNEY 2015															8																			
BLADDER 2015																																		
SKIN 2017 (SLR)																															20			
AERODIGESTIVE CANCERS (AGGREGATED) 2016-2018 ¹					3																													
RISK OF WEIGHT GAIN, OVERWEIGHT OR OBESITY 2018 23,24																	9						14											
Convincing decreases risk		Probable decreases risk Probable increases risk Convincin											ng increases risk						Substantial effect on risk unlikey															

- 1 Includes mouth, pharynx and larynx, nasopharynx, oesophagus (squamous cell carcinoma and adenocarcinoma), lung, stomach and colorectal cancers.
- 2 Aggregated exposure which contains evidence for non-starchy vegetables, fruit and citrus fruit, The Panel notes that while the evidence for links between individual cancers and non-starchy vegetables or fruits is limited, the pattern of association is consistent and in the same direction, and overall the evidence is more persuasive of a protective effect.
- Includes evidence on total dairy, milk, cheese and dietary calcium intakes. 4
- 5
- Stomach and liver: Based on intakes above approximately 45 grams of ethanol per day (about 3 drinks). Based on intakes above approximately 30 grams of ethanol per day (about 2 drinks per day). 6
- No threshold level of intake was identified.
- 8 Based on intakes up to 30 grams of ethanol per day (about 2 drinks per day). There is insufficient evidence for intake greater than 30 grams per day.
- Such diets are characterised by high intakes of free sugars, meat and dietary fat; the overall conclusion 9 includes all these factors.
- 10 Evidence is from studies of high-dose supplements in smokers. 11 Includes both foods naturally containing the constituent and foods which have the constituent added
- and includes studies using supplements. 12 Evidence derived from studies of supplements at dose >200 milligrams per day.

- 13 Colon cancer only. 14 Aerobic physical activity only.
 - 15 Screen time is a marker of sedentary behaviour.
- 16 Body fatness is marked by body mass index (BMI) and where possible waist circumference and waist-hip ratio.
 - 17 Stomach cardia cancer only. 18 Advanced prostate cancer only.
 - 19 Young women aged about 18 to 30 years; body fatness is marked by BMI.

 - 20 Malignant melanoma only.21 Adult attained height is unlikely to directly influence the risk of cancer. It is a marker for genetic, environmental, hormonal and nutritional factors affecting growth during the period from preconception to completion of growth in length.
 - 22 Evidence relates to effects on the mother who is breastfeeding and not to effects on the child who is being breastfed. Relates to overall breast cancer (unspecified).
 - 23 The factors identified as increasing or decreasing risk of weight gain, overweight or obesity do so by promoting positive energy balance (increased risk) or appropriate energy balance (decreased risk), through a complex interplay of physiological, psychological and social influences.
 - 24 Evidence comes mostly from studies of adults but, unless there is evidence to the contrary, also apply to children (aged 5 years and over).