

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

# Prescriptive Nutritional Guidance for Prevention of Cancer: Guidelines

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## Research Questions

1. What are the evidence-based guidelines regarding diets that include the consumption of red meat or processed meat for cancer prevention?
2. What are the evidence-based guidelines regarding diets that include the consumption of fruits and vegetables for cancer prevention?

## Key Findings

Two evidence-based guidelines with prescriptive recommendations regarding diets that include the consumption of red meat or processed meat for cancer prevention, or diets that include the consumption of fruits and vegetables for cancer prevention were identified. No relevant health technology assessments or systematic reviews of evidence-based guidelines regarding diets that include the consumption of red meat or processed meat for cancer prevention, or diets that include the consumption of fruits and vegetables for cancer prevention were identified.

## Methods

A limited literature search was conducted by an information specialist on key resources including PubMed, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused Internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were diets that include the consumption of red meat, processed meat, fruits or vegetables and the prevention and risks of cancer. Search filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, network meta-analyses or guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2015 and February 3, 2020. Internet links were provided, where available.

## Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

**Table 1: Selection Criteria**

<b>Population</b>	All individuals
<b>Intervention</b>	Q1: Diets containing red meat or processed meat Q2: Diets containing fruit and vegetables
<b>Comparator</b>	No comparator needed
<b>Outcomes</b>	Prescriptive and specific recommendations regarding safe levels of consumption for cancer prevention, prescriptive and specific recommendations regarding abstinence of foods for cancer prevention, prescriptive and specific recommendations regarding numbers of servings or amount of fruits, vegetables, red meat, or processed meat for cancer prevention
<b>Study Designs</b>	Health technology assessments, systematic reviews, evidence-based guidelines

## Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by evidence-based guidelines.

Two evidence-based guidelines<sup>1-2</sup> with prescriptive recommendations regarding diets that include the consumption of red meat or processed meat for cancer prevention, or diets that include the consumption of fruits and vegetables for cancer prevention were identified. No relevant health technology assessments or systematic reviews of evidence-based guidelines with prescriptive recommendations regarding diets that include the consumption of red meat or processed meat for cancer prevention, or diets that include the consumption of fruits and vegetables for cancer prevention were identified.

Additional references of potential interest are provided in the appendix.

## Overall Summary of Findings

Two evidence-based guidelines with prescriptive recommendations regarding diets that include the consumption of red meat or processed meat for cancer prevention, or diets that include the consumption of fruits and vegetables for cancer prevention were identified.<sup>1-2</sup>

The German Guideline Program in Oncology<sup>1</sup> provides evidence-based diet recommendations to reduce the risk of colorectal cancer. The guideline recommends a diet with fiber uptake of at least 30 grams a day, and that red or processed meat should only be consumed in small amounts (not daily).<sup>1</sup> The guideline developed by the World Cancer Research Fund (WCRF) and the American Institute for Cancer Research (AICR) is a result of the Continuous Update Project, which is the world's largest source of scientific research on cancer prevention and survival, including diet and nutrition.<sup>2</sup> The WCRF/AICR guideline recommends to: 1) consume a diet that provides at least 30 grams per day of fiber from food sources; 2) to include foods containing wholegrains, non-starchy vegetables, fruit and legumes in most meals; 3) to eat a diet high in all types of plant foods, including at least five portions or servings (400 grams or 15 ounces) of a variety of non-starchy vegetables and fruit every day; and 4) to eat non-starchy vegetables, fruit, and legumes regularly if starchy roots and tubers are consumed as staple foods.<sup>2</sup> Moreover, the WCRF/AICR guideline recommends that consumption of red meat should be limited to no more than

about three portions per week (350 to 500 grams or 12 to 18 ounces of cooked weight of red meat), and to consume very little, if any, processed meat.<sup>2</sup>

## References Summarized

### Health Technology Assessments

No literature identified.

### Systematic Reviews and Meta-Analyses

No literature identified.

### Guidelines and Recommendations

1. Evidenced-based guideline for colorectal cancer. Berlin (DE): German Guideline Program in Oncology; 2019:  
[https://www.leitlinienprogramm-onkologie.de/fileadmin/user\\_upload/Downloads/Leitlinien/Kolorektales\\_Karzinom/Version\\_2/GGPO\\_Guideline\\_Colorectal\\_Cancer\\_2.1.pdf](https://www.leitlinienprogramm-onkologie.de/fileadmin/user_upload/Downloads/Leitlinien/Kolorektales_Karzinom/Version_2/GGPO_Guideline_Colorectal_Cancer_2.1.pdf). Accessed 2020 Feb 20.  
*See: 3.2. Diet Recommendations*
2. World Cancer Research Fund, American Institute for Cancer Research. Continuous update project expert report 2018. Recommendations and public health and policy implications. 2018;  
<https://www.wcrf.org/sites/default/files/Recommendations.pdf>. Accessed 2020 Feb 20.  
*See: Eat a diet rich in wholegrains, vegetables, fruit and beans and Limit consumption of red and processed meat*

## Appendix — Further Information

### Guidelines and Recommendations — Non-Prescriptive Recommendations

3. Johnston BC, Zeraatkar D, Han MA et al. Unprocessed red meat and processed red meat consumption: dietary guideline recommendations from the Nutritional Recommendations (NutriRECS) Consortium. *Ann Intern Med.* 2019;171(10):756-764. [PubMed: PM31569235](#)  
*See: Recommendation for Unprocessed Red Meat and Recommendation for Processed Meat*
4. Monahan KJ, Bradshaw N, Dolwani S, et al. Guidelines for the management of hereditary colorectal cancer from the British Society of Gastroenterology (BSG)/ Association of Coloproctologists of Great Britain and Ireland (ACPGBI)/ United Kingdom Cancer Genetics Group (UKCGG). *Gut.* 2019;69(3):411-444. [PubMed: PM31780574](#)  
*See: Prevention and lifestyle modification in familial CRC*
5. Optimal care pathway for Aboriginal and Torres Strait Islander people with cancer. Australian Government - Cancer Australia. 2018; <https://canceraustralia.gov.au/system/tdf/publications/optimal-care-pathway-aboriginal-and-torres-strait-islander-people-cancer/pdf/optimal-care-pathway-for-aboriginal-and-torres-strait-islander-people-with-cancer.pdf?file=1&type=node&id=6156>. Accessed 2020 Feb 20.  
*See: Step 1: Prevention and early detection*

### Clinical Practice Guidelines — Unclear Methodology

6. Canadian Cancer Society. Why you should limit red meat and avoid processed meat. 2020; <https://www.cancer.ca/en/prevention-and-screening/reduce-cancer-risk/make-healthy-choices/eat-well/limit-red-meat-and-avoid-processed-meat/?region=on>. Accessed 2020 Feb 20.
7. Canadian Partnership Against Cancer. Indicators to measure progress on healthy eating policy. 2019; <https://www.partnershipagainstcancer.ca/topics/indicators-to-measure-progress-on-healthy-eating-policy/>. Accessed 2020 Feb 20.
8. Cancer prevention eating guidelines. HealthLinkBC. 2016; <https://www.healthlinkbc.ca/healthy-eating/cancer-prevention-eating-guidelines>. Accessed 2020 Feb 20.  
*See: Eat more plant foods and Eat less red meat and avoid processed meats.*