

## PROSPERO

### International prospective register of systematic reviews

#### Dairy product consumption and risk of cancer – an overview of reviews

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#### Citation

Maya M. Jeyaraman, Ahmed M. Abou-Setta, Laurel Grant, Farnaz Farshidfar, Leslie Copstein, Justin Lys, Amrinder Singh Mann, Tania Gottschalk, Marshall Pitz, Ryan Zarychanski. Dairy product consumption and risk of cancer – an overview of reviews. PROSPERO 2017 CRD42017078463 Available from: [http://www.crd.york.ac.uk/PROSPERO/display\\_record.php?ID=CRD42017078463](http://www.crd.york.ac.uk/PROSPERO/display_record.php?ID=CRD42017078463)

#### Review question

Among adult humans, is dairy product consumption associated with an increased risk of development of cancer or mortality?

#### Searches

We will search for PMASRs on dairy consumption and cancer using a peer-reviewed comprehensive search strategy for the following bibliographic databases: PubMed (NLM), MEDLINE (Ovid), EMBASE (Ovid), CENTRAL (Wiley), CAB abstracts (Ovid), Food, Science & Technology (Ovid), and CINAHL (EbscoHost) from inception to July 2017, irrespective of the language, publication status or publication year. We also searched Web of Science-SCI, Web of Science-Conference Abstracts and Scopus. The search strategy for MEDLINE is reported in Appendix 1. We will forward search Scopus and Web of Science for cited reference searching of included reviews. We will also hand-search conference proceedings (2014 – 2017) for the following conferences: American Society of Clinical Oncology's annual meeting (ASCO), American Association for Cancer Research (AACR) Annual Meeting, and European Society for Medical Oncology (ESMO). We will also contact experts in the field and search PROSPERO for any unpublished reviews in this field. We will use EndNote™ (Version X7, Thomson Reuters) for reference management.

#### Types of study to be included

Inclusion: Pooled analyses, meta-analyses and systematic reviews (PMASR) Exclusion: Narrative reviews, primary research studies (randomized controlled trials, observational studies or qualitative studies), Commentaries/opinion articles and Animal studies

#### Condition or domain being studied

Cancer

#### Participants/population

Inclusion: Adult (author-defined) humans (> or = 80%)  
Exclusion: Children (> or = 20%)

#### Intervention(s), exposure(s)

Inclusion: Any dairy product consumption (e.g. milk, yogurt, etc.)

#### Comparator(s)/control

Inclusion: Low dairy consumption or no dairy consumption

#### Context

Inclusion: Any type of setting

#### Main outcome(s)

Development of any type of cancer

#### Additional outcome(s)

All-cause mortality and Cancer-specific mortality

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#### Data extraction (selection and coding)

Two reviewers independently will first screen the titles and abstracts of citations identified by our search strategy. Each of the screened abstract will be marked as included, excluded or unsure. Conflicts will be resolved using consensus or third party adjudication. Full-texts will be retrieved for the citations marked as either included or unsure. Full-text screening will be done by two reviewers and any conflicts will be resolved through consensus or third party adjudication. A PRISMA flow diagram illustrating the number of studies either included or excluded in each step of the study selection process will be constructed using the standard PRISMA flow chart

We will develop customized data extraction forms to extract data from included reviews. We will pilot test the data extraction form on a sample of PMASRs prior to data extraction phase. Two review authors will independently extract the data and characteristics of included PMASRs as listed below.

1. We will extract the following individual study characteristics from the included PMASRs:
  - a. Publication type (conference abstract, published manuscript, overview protocol)
  - b. Study design (Systematic review, pooled analysis, meta-analysis)
  - c. Publication year
  - d. Continent(s) (based on country of origin of cohort members in primary studies included in PMASRs)
  - e. Funding source (industry vs. government vs. academic institution)
  - f. Number of databases searched
  - g. Name of databases searched
  - h. Type of study designs included (Cohort study, case-control study, etc.)
  - i. Number of primary studies included
  - j. Total sample size of included studies
  - k. Population (Adults with or without cancer)
  - l. Age (mean/median and range/standard deviation)
  - m. Type of dairy product consumed (milk, yogurt, etc.)
  - n. Cancer outcome reported (gastric cancer, colorectal cancer, etc.)
  - o. Analysis model - Random effects, fixed-effects, simple pooling
  - p. Meta-regression (reported/not reported)
  - q. Subgroup analysis (reported/not reported)
  - r. Publication bias (reported/not reported)
  - s. GRADE assessment reported (reported/not reported)
  - t. All-cause mortality reported (reported/not reported)
  - u. Cancer-specific mortality (reported/not reported)
  - v. Summary effect estimate – Risk of development of cancer
  - w. Summary effect estimate – Risk of all-cause mortality
  - x. Summary effect estimate – Risk of cancer-specific mortality

#### Risk of bias (quality) assessment

We will use AMSTAR to assess the methodological quality/internal validity of each of the included PMASRs. Two reviewers will independently assess the quality of the included PMASRs and resolve any conflicts through consensus or third party adjudication.

#### Strategy for data synthesis

1. We will analyze the extracted study characteristics and report the key features of included PMASRs as “n (%)” or median/mean (range)
2. We will report the quality assessments and the extracted characteristics of all the included PMASRs using tables.
3. The nature of association between dairy product consumption and the risk of development of each cancer type, all-cause mortality or cancer-specific mortality will be assessed based on summary effect estimates reported by the PMASRs, and then reported using figures and tables.

#### Analysis of subgroups or subsets

None

#### Contact details for further information

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### Organisational affiliation of the review

George and Fay Yee Center for Healthcare Innovation

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### Anticipated or actual start date

20 June 2017

### Anticipated completion date

01 November 2017

### Funding sources/sponsors

None

### Conflicts of interest

None known

### Language

English

### Country

Canada

### Stage of review

Review\_Ongoing

### Subject index terms status

Subject indexing assigned by CRD

### Subject index terms

Biological Phenomena; Dairy Products; Humans; Neoplasms; Risk

### Date of registration in PROSPERO

17 November 2017

### Date of publication of this version

03 October 2017

### Details of any existing review of the same topic by the same authors

### Stage of review at time of this submission

<b>Stage</b>	<b>Started</b>	<b>Completed</b>
Preliminary searches	Yes	Yes
Piloting of the study selection process	Yes	Yes
Formal screening of search results against eligibility criteria	Yes	Yes
Data extraction	Yes	No
Risk of bias (quality) assessment	No	No
Data analysis	No	No

### Versions

03 October 2017

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