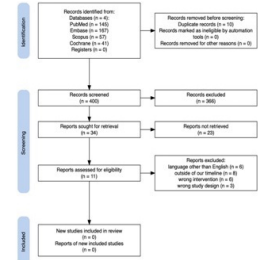


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Diet and Acne Systematic Review

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Protocol status: Working

We use this protocol and it's working

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Keywords: Acne vulgaris, diet, nutrition, glycemic index, dairy, systematic review, PRISMA, dermatology, dietary interventions, acne management, acne systematic review, acne incidence, acne vulgaris, association between dietary factor, effects of dietary exposure, dietary exposure, dietary factor, overall dietary pattern, dietary contribution, including glycemic load, role of nutrition, glycemic load, fatty acid

Abstract

This protocol describes the planned methods for a systematic review investigating the association between dietary factors and acne vulgaris. The review will evaluate randomized controlled trials and observational studies that examine the effects of dietary exposures—including glycemic load, dairy, chocolate, omega-3 fatty acids, and overall dietary patterns—on acne incidence and severity.

The expected outcome of this protocol is a transparent, reproducible methodology that will synthesize existing evidence and clarify dietary contributions to acne development and progression. Results are anticipated to provide guidance for clinicians, patients, and researchers in understanding the role of nutrition in acne management.

Guidelines

This systematic review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines. Study selection, data extraction, and synthesis are conducted in accordance with established methodological standards for systematic reviews.

Materials

- **Databases:** PubMed (MEDLINE), Scopus, Embase, and Cochrane Library.
- **Guidelines:** PRISMA 2020 Statement and Checklist for systematic reviews.
- **Reference Management:** EndNote / Zotero / Mendeley (used for citation management and duplicate removal).
- **Screening Tools:** Microsoft Excel / Covidence / Rayyan (used to track study inclusion/exclusion).
- **Data Extraction Tools:** Microsoft Excel or Google Sheets (for structured data collection, summary tables, and quality assessment).
- **Figures:** PRISMA 2020 Flow Diagram template (to illustrate study selection).
- **Quality Assessment Tools:** Cochrane Risk of Bias Tool (for randomized controlled trials) and Newcastle-Ottawa Scale (for observational studies).



Safety warnings



- Limiting searches to English-only studies may introduce language bias.
- Reliance on self-reported dietary and acne severity data in included studies may increase risk of recall bias.

Heterogeneity in study design and dietary assessment tools may limit generalizability of conclusions.n/a

Before start

- All steps included on steps page



Define Research Question

- 1 Specify the research question: "What is the relationship between dietary factors (glycemic load, dairy intake, sugar/fat consumption) and acne vulgaris?"
- 2 Define Population, Intervention/Exposure, Comparator, and Outcomes (PICO framework).

Literature Search Strategy

- 3 Select databases: PubMed (MEDLINE), Scopus, Embase, and Cochrane Library.
- 4 Use search terms: "acne," "diet," "nutrition," "glycemic index," "dairy," and "food."
- 5 Apply filters:
 - 5.1 Language: English
 - 5.2 Publication date: January 2010 – December 2024
- 6 Export all search results and remove duplicates.

Eligibility Criteria

- 7
- 8 Inclusion criteria:
 - 8.1 Human studies only



8.2 Randomized controlled trials, cohort studies, case-control studies, cross-sectional studies

8.3 Clearly defined acne assessment methods

9 Exclusion criteria:

9.1 Case reports, reviews, animal studies

9.2 Studies focused solely on supplements or non-dietary interventions

Study Screening and Selection

10 Title and abstract screening by reviewers.

11 Full-text review of potentially eligible articles.

12 Apply inclusion/exclusion criteria consistently.

13 Record numbers at each stage in a PRISMA flow diagram.

Data Extraction

14

15 Extract study characteristics:



- 15.1 Author, year, country, design, sample size, population
- 15.2 Dietary exposures studied
- 15.3 Acne assessment methods
- 15.4 Main findings and statistical results
- 16 Enter data into a unified summary table (Supplemental Material).

Quality Assessment

- 17 Assess study quality using appropriate tools (e.g., Cochrane Risk of Bias for RCTs, Newcastle-Ottawa Scale for observational studies).
- 18 Record bias/limitations in data extraction sheet.

Data Synthesis

- 19
- 20 Summarize findings qualitatively across included studies.
- 21 Report effect sizes/meta-analyses from published literature where available (no new meta-analysis performed).
- 22 Group results by dietary factor:

- 22.1 Glycemic index/load
- 22.2 Dairy intake
- 22.3 High sugar/fat consumption

Reporting

- 23 Present study selection process in a PRISMA flowchart.
- 24 Summarize evidence in tables/figures.
- 25 Discuss strengths, limitations, and implications for dietary guidance in acne management.
- 26 Follow PRISMA 2020 checklist for reporting.

Protocol references

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