

LUNCH & LEARN

Systematische Literaturrecherche in PubMed

Eine Einführung



Referentin: Julia Stadelmaier, MSc

Moderation/Host: Dr. Angelika Eisele-Metzger

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Bundesministerium
für Gesundheit

aufgrund eines Beschlusses
des Deutschen Bundestages



Systematische Literaturrecherche in PubMed – eine Einführung

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Institut für Evidenz in der Medizin



Interessenkonflikt

- Seit 2020 wissenschaftliche Mitarbeiterin am Institut für Evidenz in der Medizin (Uniklinik Freiburg)
- ... versichere, dass in Bezug auf den Inhalt des folgenden Vortrags in den letzten 3 Jahren keine Interessenkonflikte bestanden, die sich aus Beziehungen zu einem Unternehmen ergaben, z. B. einem Beschäftigungsverhältnis, einer Beratertätigkeit, finanziellen Zuwendungen für Forschungsvorhaben, Vorträge oder andere Tätigkeiten.

Inhalt

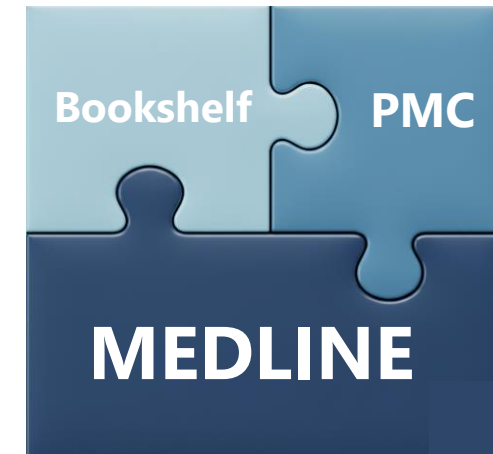
PubMed

<https://pubmed.ncbi.nlm.nih.gov/>

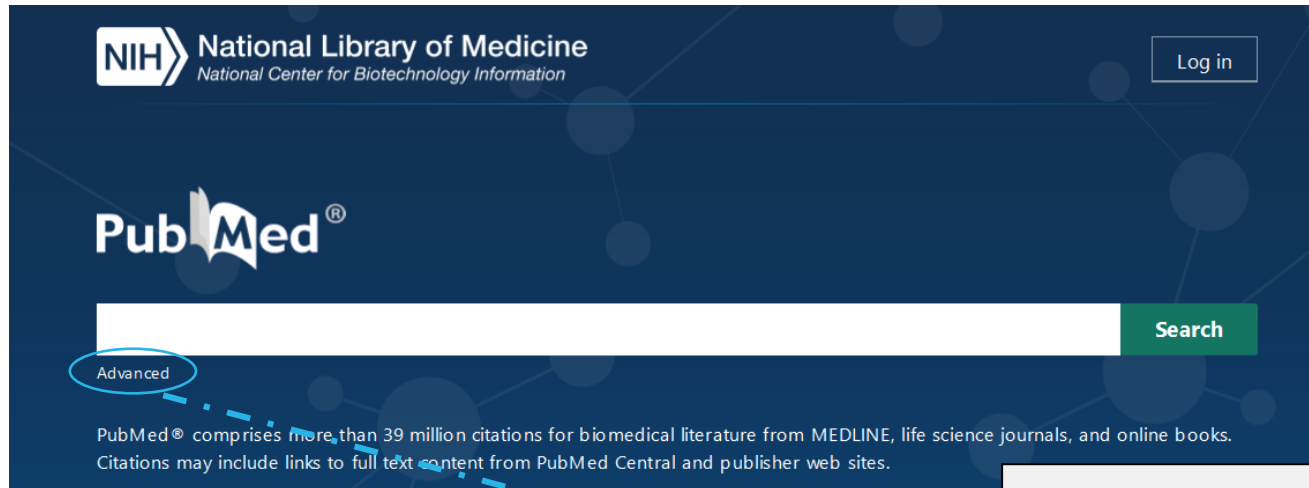
- Was ist PubMed?
- Suchmöglichkeiten in PubMed
- Aufbau einer Suchstrategie in PubMed
- Literatur

Was ist PubMed?

- Frei zugängliche Ressource für die Suche von Literatur aus der Biomedizin und dem Gesundheitsbereich
- National Center for Biotechnology Information, U.S. National Library of Health
- Ca. 5.200 indexierte Zeitschriften
- Ca. 39 Mio. Referenzen (> 1 Mio. neue Referenzen/Jahr)
- Enthält verschiedene Publikationstypen
(z.B. klinische Studien, systematische Reviews, Kommentare, Retraction Notice)
- Thesaurus: Medical Subject Headings (MeSH), jährliche Aktualisierung



Suchmöglichkeiten in PubMed



<https://pubmed.ncbi.nlm.nih.gov/>

The image shows the PubMed Advanced Search Builder interface. At the top left is the title 'PubMed Advanced Search Builder'. At the top right is the PubMed logo and the text 'User Guide'. Below this is a section titled 'Add terms to the query box'. It contains a dropdown menu with 'All Fields' selected, a text input field with the placeholder 'Enter a search term', and a blue 'ADD' button with a dropdown arrow. Below the 'ADD' button is a link 'Show Index'. Below this is a section titled 'Query box'. It contains a large text input field with the placeholder 'Enter / edit your search query here' and a blue 'Search' button with a dropdown arrow.

Suchmöglichkeiten in PubMed

Darstellung der Suchergebnisse

The screenshot shows the PubMed search results for the query "smoking prevention". The interface includes a search bar at the top with the query and a "Search" button. Below the search bar, there are links for "Advanced", "Create alert", "Create RSS", and "User Guide". The results are displayed in a list format, with a "Filter" section on the left and a "Referenzen" section on the right. The "Filter" section includes a "RESULTS BY YEAR" graph showing a significant increase in publications starting around 2010, and a "PUBLICATION DATE" section with radio buttons for "1 year", "5 years", "10 years", and "Custom Range". The "Referenzen" section lists three results, each with a checkbox, a title, a citation, and a brief summary. The first result is "Smoking prevention in children and adolescents: A systematic review of individualized interventions." by Duncan LR, Pearson ES, and Maddison R. The second result is "Serious games for smoking prevention and cessation: A systematic review of game elements and game effects." by Derksen ME, van Strijp S, Kunst AE, Daams JG, Jaspers MWM, and Fransen MP. The third result is "Smoking Prevention and Cessation Programs for Children and Adolescents Focusing on Parental Involvement: A Systematic Review and Meta-Analysis." by Rifat MA, Orsini N, Qazi B, and Galanti MR.

PubMed®

smoking prevention

Advanced Create alert Create RSS User Guide

Save Email Send to Sort by: Best match Display options

Filter

MY CUSTOM FILTERS

71,768 results

Referenzen

Page 1 of 7,177

RESULTS BY YEAR

1893 2026

PUBLICATION DATE

1 year 5 years 10 years Custom Range

TEXT AVAILABILITY

Abstract Free full text Full text

ARTICLE ATTRIBUTE

1 ☐ **Smoking prevention** in children and adolescents: A systematic review of individualized interventions.

Cite Duncan LR, Pearson ES, Maddison R. Patient Educ Couns. 2018 Mar;101(3):375-388. doi: 10.1016/j.pec.2017.09.011. Epub 2017 Sep 21. PMID: 28987451

RESULTS: We included 16 studies administered in various settings: seven in health care; four informally during and outside of school hours; three in the home; and two in extra-curricular settings. Positive preventive effects in **smoking** behavior ranging from 3-months to 4-y ...

2 ☐ **Serious games for smoking prevention** and cessation: A systematic review of game elements and game effects.

Cite Derksen ME, van Strijp S, Kunst AE, Daams JG, Jaspers MWM, Fransen MP. J Am Med Inform Assoc. 2020 May 1;27(5):818-833. doi: 10.1093/jamia/ocaa013. PMID: 32330255 Free PMC article.

Most frequently used were general and intermittent rewards, theme and genre features, and punishments. Six studies on **smoking prevention** together assessed 20 determinants and found statistically significant positive effects for 8 determinants (eg, attitude, knowledg ...

3 ☐ **Smoking Prevention** and Cessation Programs for Children and Adolescents Focusing on Parental Involvement: A Systematic Review and Meta-Analysis.

Cite Rifat MA, Orsini N, Qazi B, Galanti MR. J Adolesc Health. 2025 Apr;76(4):532-541. doi: 10.1016/j.jadohealth.2024.10.032. Epub 2024 Dec 28.

Suchmöglichkeiten in PubMed

Darstellung eines Eintrages

Digital Object Identifier
→ Link zum Journal

Zusammenfassung

> Patient Educ Couns. 2018 Mar;101(3):375-388. doi: 10.1016/j.pec.2017.09.011. Epub 2017 Sep 21.

Smoking prevention in children and adolescents: A systematic review of individualized interventions

Lindsay R Duncan ¹, Erin S Pearson ², Ralph Maddison ³

Affiliations + expand
PMID: 28987451 DOI: 10.1016/j.pec.2017.09.011

Abstract

Objective: This study systematically reviewed the literature to determine what type of cognitive-behavioral based interventions administered outside of formal school settings effectively prevent smoking initiation among children and adolescents.

Methods: Applying the PRISMA guidelines we searched MEDLINE, PsycINFO, CINAHL, Pub Med, SCOPUS, and Sport Discus. Article review, data extraction, and assessment of risk of bias were conducted by two independent reviewers.

Results: We included 16 studies administered in various settings: seven in health care; four informally during and outside of school hours; three in the home; and two in extra-curricular settings. Positive preventive effects in smoking behavior ranging from 3-months to 4-years were observed in eight studies. Social environmental influences (e.g., parental smoking, friends) are salient contributing factors.

Conclusions: Effective approaches involved interventions conducted in health care settings as well as those employing interpersonal communication and support strategies (e.g., via peer leaders, parent support, physicians).

Practice implications: Primary health care settings may be optimal for implementing cigarette

FULL TEXT LINKS
ELSEVIER
FULL-TEXT ARTICLE

ACTIONS
Cite
Collections
Permalink

PAGE NAVIGATION
Title & authors
Abstract
Similar articles
Cited by
Publication types
MeSH terms
LinkOut - more resources

Volltext

Zitierung

CITE

Duncan, L. R., Pearson, E. S., & Maddison, R. (2018). Smoking prevention in children and adolescents: A systematic review of individualized interventions. *Patient education and counseling*, 101(3), 375-388. <https://doi.org/10.1016/j.pec.2017.09.011>

Copy Download .nbib Format: APA

Suchmöglichkeiten in PubMed

Darstellung eines Eintrages

> [Patient Educ Couns](#). 2018 Mar;101(3):375-388. doi: 10.1016/j.pec.2017.09.011. Epub 2017 Sep 21.

Smoking prevention in children and adolescents: A systematic review of individualized interventions

[Lindsay R Duncan](#)¹, [Erin S Pearson](#)², [Ralph Maddison](#)³

Affiliations + expand
PMID: 28987451 DOI: 10.1016/j.pec.2017.09.011

Abstract

FULL TEXT LINKS
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Hilfreiche Informationen /
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Similar articles

[Screening and brief intervention for alcohol and other abuse.](#)

Harris SK, Louis-Jacques J, Knight JR.

Adolesc Med State Art Rev. 2014 Apr;25(1):126-56.

PMID: 25022191 Review.

[Risk and protective profile of tobacco and alcohol use among Iranian population- based study.](#)

Baheiraei A, Soltani F, Ebadi A, Foroushani AR, Cheraghi MA.

Int J Adolesc Med Health. 2016 Mar 16;29(3):j/jamh.2017.29.issue-3/jamh-2015-0089/jja
10.1515/jamh-2015-0089.

Cited by

[Prevalence and Factors Influencing Smoking Behavior among Female Inmates in Malaysia.](#)

Jusoh S, Naing NN, Wan-Arfah N, Hajidah WN, Arifin WN, Wong LS, Djearamane S, Antony ACT, Saleem M, Selvaraj S.

Healthcare (Basel). 2023 Jan 9;11(2):203. doi: 10.3390/healthcare11020203.

PMID: 36673571 **Free PMC article.**

[Tobacco use among adolescents in Qatar: Findings from Global Youth Tobacco Surveys 2004-2013.](#)

Al-Dahshan A, El Zoghbi M, Chehab MAH, Naja S, Selim NAA.

Tob Prev Cessat. 2019 Mar 13;5:10. doi: 10.18332/tpc/105110. eCollection 2019.

PMID: 32411875 **Free PMC article.**

Publication types

> [Systematic Review](#)

MeSH terms

> [Adolescent](#)
> [Adolescent Behavior](#)
> [Humans](#)
> [Primary Health Care / methods*](#)
> [Smoking / adverse effects*](#)
> [Smoking Prevention / methods*](#)

<https://pubmed.ncbi.nlm.nih.gov/28987451/>

Suchmöglichkeiten in PubMed

Advanced Search Builder

für den „Bau“ komplexer Suchanfragen

Eingrenzung der Suche auf definierte Suchfelder, z.B.

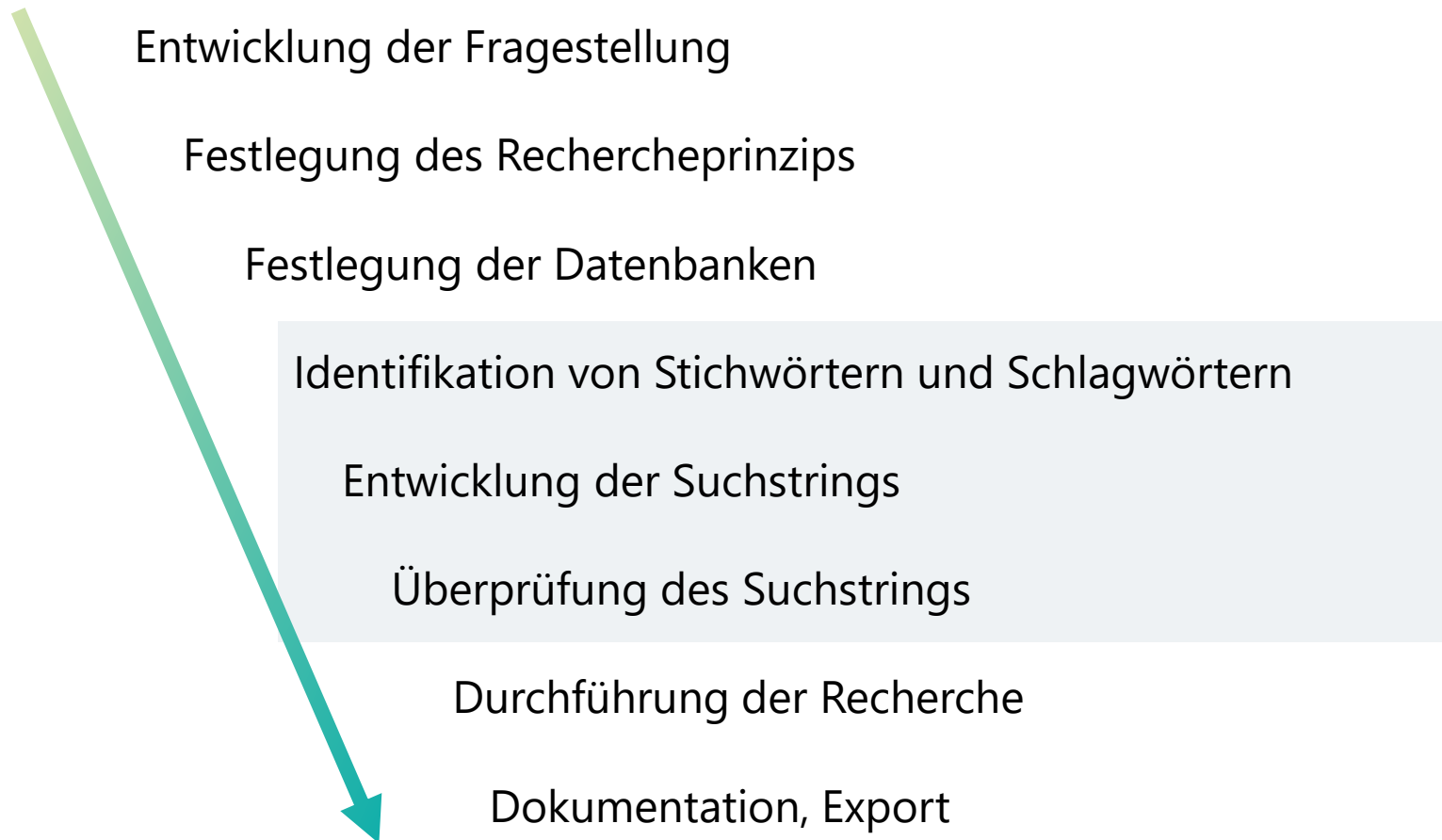
- Author
- Title / Abstract
- Journal

Ergebnisse vorheriger Suchanfragen

<https://pubmed.ncbi.nlm.nih.gov/advanced/>

Aufbau einer Suchstrategie

Schritte einer systematischen Literaturrecherche



Aufbau einer Suchstrategie

- **Festlegung der Suchkomponenten**

Welche Bestandteile einer Fragestellung werden in die Suche eingeschlossen?

- **Identifikation von Suchbegriffen:**

Schlüsselbegriffe und ihre Synonyme, verwandte Begriffe

Brainstorming, Expert*innen, Thesaurus, KI-Unterstützung

Singular/Plural, britisches/amerikanisches Englisch, Bindestrich/Apostrophe

*Beispiel: child oder children
randomized oder randomised
healthcare oder health care*

Aufbau einer Suchstrategie

Beispiel:



Population *Adults*

Intervention *Milk and dairy products*



*butter, cheese, kefir,
buttermilk, cream
yogurt, yoghurt*

Control *Usual diet*

Outcome *Cardiovascular disease*



*coronary heart disease, stroke,
coronary disease, heart disease,
vascular disease*

Study design *Randomized controlled trials*

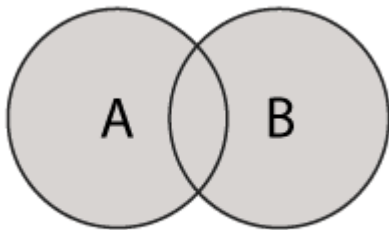


*RCT, randomly,
randomized, randomised*

Erstellt mit OpenAI, ChatGPT-5

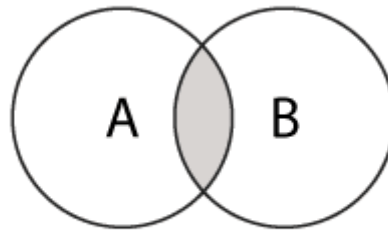
Aufbau einer Suchstrategie

- **Bool'sche Operatoren:** OR / AND / NOT



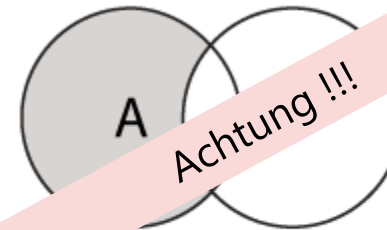
A OR B

milk OR cheese



A AND B

milk AND stroke



A NOT B

adults NOT children

Aufbau einer Suchstrategie

Beispiel:



Suchstrategie in PubMed

#1	milk OR milks OR dairy OR butter OR cheese OR cheeses OR kefir OR buttermilk OR cream OR yogurt OR yogurts OR yoghurt OR yoghurts
#2	cardiovascular disease OR cardiovascular diseases OR coronary heart disease OR coronary heart diseases OR stroke OR strokes OR coronary disease OR coronary diseases OR heart attack OR heart attacks OR vascular disease OR vascular diseases
#3	RCT OR randomized OR randomised OR randomly OR random
#4	#1 AND #2 AND #3

Erstellt mit OpenAI, ChatGPT-5

Aufbau einer Suchstrategie

- **Klammerung**
- **Trunkierung**
- **Feldersuche**
- **Phrasensuche**
- **Wortabstands-Operator**

Aufbau einer Suchstrategie

- **Klammerung**

Suche mit mehreren Operatoren, Operatoren-Rangfolge festlegen

Mehrfacheingaben reduzieren

cardiovascular disease OR cardiovascular diseases
OR coronary heart disease OR coronary heart diseases
OR coronary disease OR coronary diseases
OR vascular disease OR vascular diseases



(cardiovascular OR coronary OR heart
OR vascular) AND (disease or diseases)

- **Trunkierung (*)**

Suche nach Wortvariationen, Abkürzung von Suchbegriffen

random OR randomize OR randomise OR randomly
OR randomized OR randomised OR randomization
OR randomisation



random*

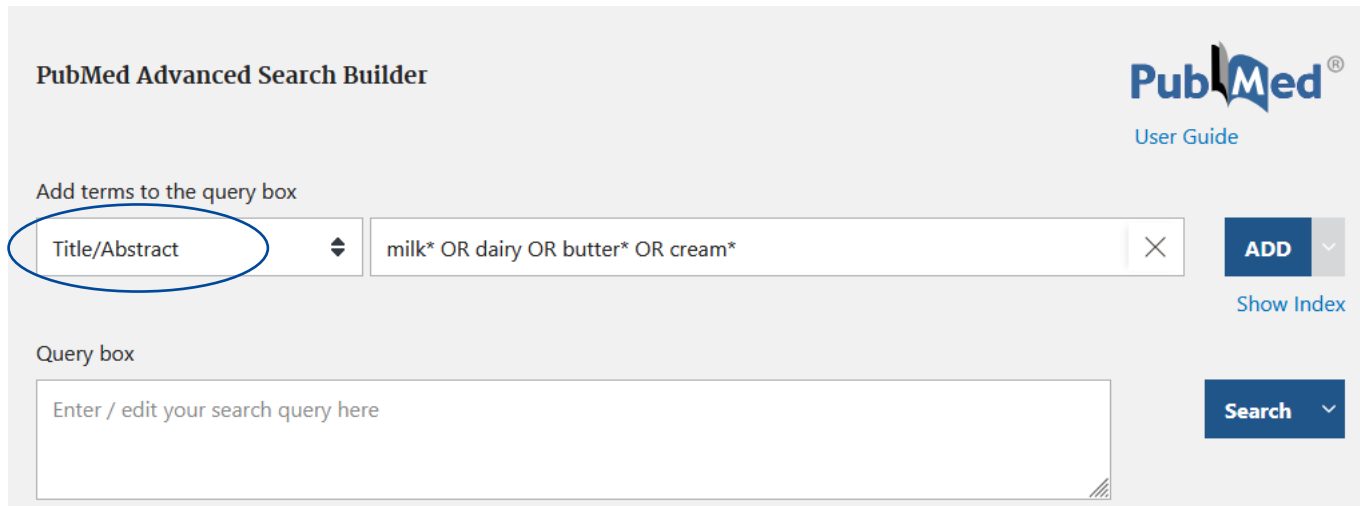
Aufbau einer Suchstrategie

- **Feldersuche**

Suche in definierten Feldern

[Title/Abstract] oder [tiab]

milk* **[Title/Abstract]** OR butter* **[Title/Abstract]**



PubMed Advanced Search Builder

PubMed[®]
User Guide

Add terms to the query box

Title/Abstract

milk* OR dairy OR butter* OR cream*

ADD

Show Index

Query box

Enter / edit your search query here

Search

<https://pubmed.ncbi.nlm.nih.gov/advanced/>

Aufbau einer Suchstrategie

- **Phrasensuche**

"search term"

*Suche nach Wortkombination in exakter Reihenfolge,
in exakter Schreibweise*

"cardiovascular disease" OR "coronary heart disease"

- **Wortabstands-Operator**

"search terms" [field:~N]

*Suche nach Wortkombinationen, die in bestimmten Abständen
zueinander stehen*

"cardiovascular diseases" [title/abstract:~3]

Aufbau einer Suchstrategie

Beispiel – Variante 1: *Klammerung*



Suchstrategie in PubMed	
#1	milk*[tiab] OR butter*[tiab] OR cheese*[tiab] OR kefir*[tiab] OR buttermilk[tiab] OR cream*[tiab] OR yogurt*[tiab] OR yoghurt*[tiab]
#2	((“cardiovascul*” OR “coronar*” OR “heart” OR “vascular”) AND disease*) OR stroke* OR “heart attack”
#3	RCT OR random*
#4	#1 AND #2 AND #3

Erstellt mit OpenAI, ChatGPT-5

Aufbau einer Suchstrategie

Beispiel – Variante 2: Wortabstands-Operatoren



Suchstrategie in PubMed	
#1	milk*[tiab] OR butter*[tiab] OR cheese*[tiab] OR kefir*[tiab] OR buttermilk[tiab] OR cream*[tiab] OR yogurt*[tiab] OR yoghurt*[tiab]
#2	"cardiovascular disease"[tiab:~3] OR "coronary disease"[tiab:~3] OR "heart disease"[tiab:~3] OR "vascular disease"[tiab:~3] OR "cardiovascular diseases"[tiab:~3] OR "coronary diseases"[tiab:~3] OR "heart diseases"[tiab:~3] OR "vascular diseases"[tiab:~3] OR stroke*[tiab] OR "heart attack"[tiab:~3] OR "heart attacks"[tiab:~3]
#3	RCT OR random*
#4	#1 AND #2 AND #3

Erstellt mit OpenAI, ChatGPT-5

Aufbau einer Suchstrategie

Schlagworte (Medical Subject Headings, kurz MeSH)

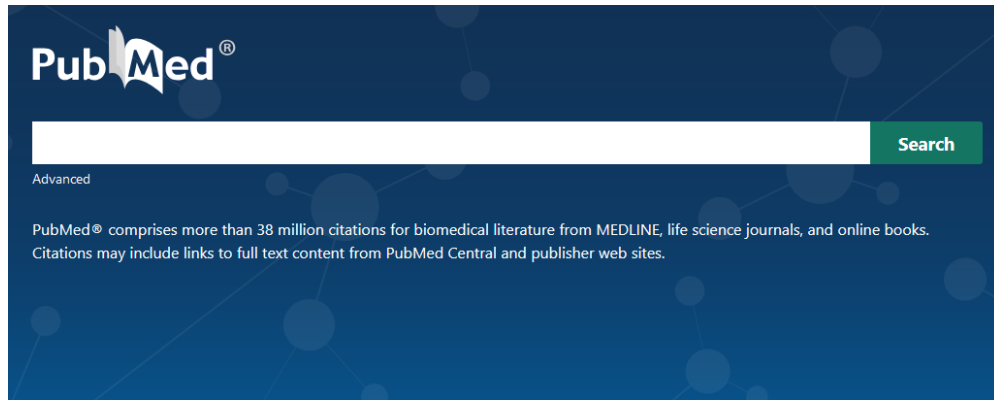
= Begriffe, die den in einer Datenbank aufgeführten Referenzen anhand von bspw. thematischen und/oder methodischen Gesichtspunkten (bspw. Krankheitsbild, Studiendesign, Dokumenttyp) von den Betreibern der Datenbanken zugeordnet wurden


RefHunter, 2024


Wichtig: stammen vom Betreiber der Datenbank
müssen i.d.R. für jede Datenbank spezifisch identifiziert werden


Aufbau einer Suchstrategie

Schlagworte (Medical Subject Headings, kurz MeSH)




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E-utilities API
FTP
Batch Citation Matcher


Explore
MeSH Database
Journals

Dairy Products
Raw and processed or manufactured milk and milk-derived products. These are usually from cows (bovine) but are also from goats, sheep, reindeer, and water buffalo.
Date introduced: January 1, 1999
PubMed search builder options
Subheadings:

<input type="checkbox"/> adverse effects	<input type="checkbox"/> microbiology	<input type="checkbox"/> statistics and numerical data
<input type="checkbox"/> analysis	<input type="checkbox"/> parasitology	<input type="checkbox"/> supply and distribution
<input type="checkbox"/> classification	<input type="checkbox"/> poisoning	<input type="checkbox"/> toxicity
<input type="checkbox"/> economics	<input type="checkbox"/> radiation effects	<input type="checkbox"/> virology
<input type="checkbox"/> history	<input type="checkbox"/> standards	

☐ Restrict to MeSH Major Topic.
☐ Do not include MeSH terms found below this term in the MeSH hierarchy.

Tree Number(s): G07.203.300.350, J02.500.350
MeSH Unique ID: D003611
Entry Terms:

- Dairy Product
- Product, Dairy
- Products, Dairy

[All MeSH Categories](#)
[Phenomena and Processes Category](#)
[Physiological Phenomena](#)
[Diet, Food, and Nutrition](#)
[Food](#)

Dairy Products
[Butter](#)
[Ghee](#)
[Cultured Milk Products](#)
[Buttermilk](#)
[Cheese](#)
[Kefir](#)
[Koumiss](#)
[Yogurt](#)
[Ice Cream](#)
[Margarine](#)
[Milk](#)

PubMed Search Builder

"Dairy Products"[Mesh]

Aufbau einer Suchstrategie

Beispiel:



Erstellt mit OpenAI, ChatGPT-5

Suchstrategie in PubMed	
#1	milk*[tiab] OR butter*[tiab] OR cheese*[tiab] OR kefir*[tiab] OR buttermilk[tiab] OR cream*[tiab] OR yogurt*[tiab] OR yoghurt*[tiab] OR "dairy products" [MeSH]
#2	(("cardiovascul" OR "coronar" OR "heart" OR "vascular") AND disease*) OR stroke* OR "heart attack" OR "cardiovascular diseases" [MeSH]
#3	RCT OR random* OR "Randomized Controlled Trial" [Publication Type]
#4	#1 AND #2 AND #3



Aufbau einer Suchstrategie

Beispiel:



Erstellt mit OpenAI, ChatGPT-5

Suche in PubMed am 5. November 2025

History and Search Details						 Download	 Delete
Search	Actions	Details	Query	Results	Time		
#4	...	>	Search: #1 AND #2 AND #3	1,202	02:41:41		
#3	...	>	Search: RCT OR random* OR "Randomized Controlled Trial"[Publication Type]	1,949,181	02:41:27		
#2	...	>	Search: (("cardiovascul*" OR "coronar*" OR "heart" OR "vascular") AND disease*) OR stroke* OR "heart attack*" OR "cardiovascular diseases"[MeSH]	3,659,951	02:41:15		
#1	...	>	Search: milk*[tiab] OR butter*[tiab] OR cheese*[tiab] OR kefir*[tiab] OR buttermilk[tiab] OR cream*[tiab] OR yogurt*[tiab] OR yoghurt*[tiab] OR "dairy products"[MeSH]	250,486	02:36:04		

Showing 1 to 4 of 4 entries

Vielen Dank für Ihre Aufmerksamkeit!

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julia.stadelmaier@uniklinik-freiburg.de

Literatur

- **PubMed User Guide**

<https://pubmed.ncbi.nlm.nih.gov/help/>

- **EbM-Netzwerk, RefHunter Systematische Literaturrecherche**

https://refhunter.org/research_support/rechercheschritte/

- **Cochrane Deutschland**

US-Shutdown trifft PubMed: Handreichung zeigt alternative Quellen für Literaturrecherche auf

<https://www.cochrane.de/news/us-shutdown-trifft-pubmed-handreichung-zeigt-alternative-quellen-fuer-literaturrecherche-auf> (letzter Zugriff 04.11.2025)

- **IQWiG**

Auswirkungen der US-Politik auf die Literaturrecherche

<https://www.iqwig.de/presse/im-fokus/us-wissenschaftspolitik/auswirkungen-der-us-politik-auf-die-literaturrecherche/> (letzter Zugriff 04.11.2025)

Evaluation



https://survey.lamapoll.de/Lunch_and_Learn_PubMed/de

workshops@cochrane.de

Lunch & Learn

HANDOUT **AUFZEICHNUNG**



Weitere Handouts und Aufzeichnungen vergangener Webinare auf
<https://www.cochrane.de/workshops-events/workshops/lunch-learn-kurzwebinare>

Übersetzungen



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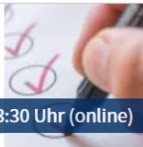
WISSEN WAS WIRKT



Weiterführende Workshops und Veranstaltungen

Systematische Übersichtsarbeiten
kritisch bewerten - AMSTAR 2

14. November 2025 09:00 - 13:30 Uhr (online)



GRADE

GRADE

02. - 04. Dezember 2025 (online)



Metaanalysen (Grundlagen)

05. - 10. Februar 2026 (online)



bleiben Sie auf dem Laufenden:



Workshops

Wenn Sie über **neue Termine** benachrichtigt werden wollen, melden Sie sich einfach auf unserer **Interessent*innen-Liste für Veranstaltungen von Cochrane Deutschland** an. Wir informieren Sie dann individuell über den Start der Online-Anmeldungen für unsere Veranstaltungen in Frühjahr & Herbst.

<https://www.cochrane.de/interessentenliste-workshops>

<https://www.cochrane.de/veranstaltungen>

Evaluation



https://survey.lamapoll.de/Lunch_and_Learn_PubMed/de

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aufgrund eines Beschlusses
des Deutschen Bundestages

