

# **Basics in literature searching: PubMed & other resources**

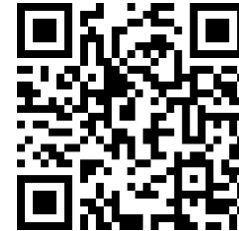
Jacqueline Huber  
MSc | MAS Academic Librarian  
Swiss TPH Library, HS 2021

# Quiz




Use the link or QR code

<https://app.klicker.uzh.ch/join/spo>

OR



# Overview

- Just start ...
- Documentation
- Aims
- Question (with exercises) 
- Resources – where do I find what?
- Boolean Operators (with exercises) 
- Google Scholar
- PubMed: Free-text searching (with exercises) 
- Precision and sensitivity
- Critical Appraisal



# Just start ...

- You have an idea or a rough topic? Start with a non-specific search to get acquainted with your topic.  
For example on Google or UpToDate
- Refine your question continuously
- Search for systematic reviews? (info in the appendix)  
→ Is the topic already covered or even relevant? What search strategies are used in topic-related reviews? Which terms are used by pertinent articles in the title or abstract?
- Build up a database search and adjust it continuously (slides follow)
- Document it!



Robert Cudmore, <https://flic.kr/p/m9TC>

# Documentation

## What to document?

- Where did you search
- Search terms
- number of hits
- Date

## How? For example

- In Word, Excel or the like: copy/paste your search
- Directly in the search interface: account needed

## Further documentation: while screening the hits:

- Note thoughts, associations or ideas
- Author/Title/Year, what is it about, for what can I use it
- → Here in addition to Word or Excel possibly also Endnote

NEW [PubMed](#)

Search 1, 12.03.2020: 858 hits resp. 733 hits with date field (orange)

"severe acute respiratory syndrome coronavirus 2" [Supplementary Concept] OR "COVID-19" [Supplementary Concept] OR (wuhan[tiab] AND coronavirus[tiab]) OR (wuhan[tiab] AND pneumonia virus[tiab]) OR COVID19[tiab] OR COVID-19[tiab] OR coronavirus 2019[tiab] OR SARS-CoV-2[tiab] OR SARS2[tiab] OR SARS-2[tiab] OR "severe acute respiratory syndrome 2"[tiab] OR 2019-nCoV[tiab] OR (novel coronavirus[tiab] AND 2019[tiab]) NOT (animals[mesh] NOT humans[mesh]) AND ("2019/12/01"[EDAT] : "3000/12/31"[EDAT])

Search 2, 12.03.2020: 805 hits; like above but more sensitive (first line in orange)

corona[ti] OR covid\*[ti] OR sars[ti] OR severe acute respiratory syndrome[ti] OR ncov\*[ti] OR "severe acute respiratory syndrome coronavirus 2" [Supplementary Concept] OR "COVID-19" [Supplementary Concept] OR (wuhan[tiab] AND coronavirus[tiab]) OR (wuhan[tiab] AND pneumonia virus[tiab]) OR COVID19[tiab] OR COVID-19[tiab] OR coronavirus 2019[tiab] OR SARS-CoV-2[tiab] OR SARS2[tiab] OR SARS-2[tiab] OR "severe acute respiratory syndrome 2"[tiab] OR 2019-nCoV[tiab] OR (novel coronavirus[tiab] AND 2019[tiab]) NOT (animals[mesh] NOT humans[mesh]) AND ("2019/12/01"[EDAT] : "3000/12/31"[EDAT])

### History and Search Details

Search	Actions	Details	Query
#1	...	Add query Delete Create alert	

# Documentation: reference management software



Swiss TPH supports only EndNote, which can be installed free of charge on all Swiss TPH Computers.

→ Swiss TPH Library offers support on EndNote for staff members

The University Medical Library offers courses:

<https://fortbildung.unibas.ch/courses/organizer/university-library-30/1>



# Aims: where do you want to go? – what will you learn today?

	Daily hospital routine	Literature search, master thesis	Systematic Review
Requirement	Fast, find specific answers	extensive, well built/solid background research	Reproducible, systematic and sensitive search
Ex. Resources	<ul style="list-style-type: none"> <li>– UpToDate</li> <li>– PubMed Clinical Queries</li> </ul>	<ul style="list-style-type: none"> <li>– Google Scholar</li> <li>– PubMed/Embase</li> <li>– Web of Science/Scopus</li> </ul>	<ul style="list-style-type: none"> <li>– PubMed/Embase/Cochrane Library</li> <li>– Web of Science/Scopus</li> <li>– Grey Literature</li> <li>– Complementing search methods</li> </ul>

Ex. Search input PubMed

Heart failure  
Spironolactone  
Mortality

Heart failure AND  
Spironolactone AND  
(Mortality OR Death)

VS

(Heart failure[tiab] OR Cardiac Failure[tiab] OR Heart Decompensation[tiab] OR "Heart Failure"[Mesh]) AND (Spironolactone[tiab] OR Aldactone[tiab] OR "Spironolactone"[Mesh]) AND (mortality[tiab] OR death[tiab] OR died[tiab] OR "Mortality"[Mesh])

(Heart failure[tiab] OR Cardiac Failure[tiab] OR Myocardial Failure[tiab] OR Heart Decompensation[tiab] OR "Heart Failure"[Mesh]) AND (Spironolactone[tiab] OR Aldactone[tiab] OR "Spironolactone"[Mesh]) AND (death[tiab] OR dying[tiab] OR die[tiab] OR died[tiab] OR dyings[tiab] OR mortal\*[tiab] OR fatal\*[tiab] OR MV\*[tiab]) AND (systematic[sb] OR (randomized controlled trial[pt] OR controlled clinical trial[pt] OR randomized[tiab] OR placebo[tiab] OR "clinical trials as topic"[MeSH Terms:noexp] OR randomly[tiab] OR trial[ti] NOT ("animals"[MeSH Terms] NOT "humans"[MeSH Terms])))

Let information specialists advise you

Today's topic

Advanced course topic

# Question: clinical vs. scientific question

## Clinical Questions

Directly relevant to the identified problem

- e.g. your individual patients and their problems:  
*Treatment plan for Mrs. Müller, 88 years old, single, diabetic with tear of posterior horn inner meniscus right knee; patient wants to be able to garden again*
- In evidence-based medicine, an answerable, precisely structured question is essential to facilitate the **search for an answer**.

## Scientific Question

Not always directly relevant to the identified problem

- e.g. a study population with certain characteristics:  
*Arthroscopic partial meniscus resection vs. physiotherapy for adults with meniscus tear; pain ↓, quality of life (QoL) ↑*



# Formulating the question precisely with PICO

**What characteristics does your patient have? Which must also be present in the study population?**

<b>Patient</b>	What demographic characteristics such as age, gender and ethnicity does the patient have? Or what kind of problems are there?
<b>Intervention</b>	What kind of intervention is being considered? For example, is it a type of medication, exercise or passive measures?
<b>Control/ Comparison</b>	Is there a control treatment that should be considered? The comparison may be with another drug, another form of treatment, such as exercise, or no treatment at all.
<b>Outcome</b>	What would be the desired effect you would like to see? Which effects are not desired? Are there any side effects with this form of testing or treatment?

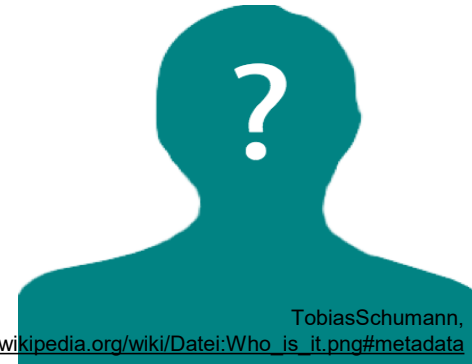
# Example for a PICO question

**Population:** Adults with meniscus tear

**Intervention:** physiotherapy

**Control:** Arthroscopic partial meniscus resection

**Outcome:** Pain ↓, QoL ↑



**PICO question:** In adult patients with a meniscus tear, is physiotherapy or arthroscopic partial meniscus resection better to reduce pain and increase quality of life?

→ In addition to PICO there are other systems depending on the context/setting, e.g. PECO, SPIDER, SPICE, CLIP, ECLIPSE, ...  
<https://libguides.city.ac.uk/c.php?g=663952&p=4696473>

# Formulating the question precisely with PE(C)O

Think about	
<b>Population</b>	Who is the question focused on?
<b>Exposure</b>	What has the population been exposed to?
<b>(Comparison /Control)</b>	(No exposure or different levels of exposure?)
<b>Outcome</b>	What, in relation to the exposure, is being examined?

# Example for a PE(C)O Question

**Population:** Teenager

**Exposure:** advertising tobacco products

**(Control:** no advertising)

**Outcome:** smoking prevalence ↑

**PE(C)O question:**

Does advertising tobacco products increase smoking prevalence in teenagers?



TobiasSchumann,  
[https://de.wikipedia.org/wiki/Datei:Who\\_is\\_it.png#metadata](https://de.wikipedia.org/wiki/Datei:Who_is_it.png#metadata)

# Determine possible PICO or PECO questions for these situations: Exercise 1



1. A friend of yours has severe asthma. After lunch with him you see an advertisement about the Hochgebirgsklinik Davos, a clinical rehabilitation center for diseases of the respiratory system situated in the mountains in Switzerland. You are wondering if a stay in a mountain climate might indeed reduce the asthmatic attacks of your friend.
2. After the newspaper “20 Minuten” reported on the difficulties of obese children in Bettingen, the municipality contacts you. They would like to reduce the risk of the children developing diabetes mellitus and ask what is better: increase recreational activities in the community or introduce educational programs for lifestyle changes.
3. Accurate and fast diagnosis of malaria is essential for the initiation of proper treatment. New molecular diagnostic based on PCR are available and you would like to know if they are more accurate than the currently used rapid diagnostic tests (RDTs).
4. Your neighbour, a healthy older woman, broke her hip. She does not want to have surgery. You get along very well and are concerned about her risk of dying within a year.
5. You have a heated discussion with a sound engineer at a concert about the adherence to the 80dB threshold. He arguments that 5dB more or less is just nit-picking. You wonder if that is true.

# PICO Exercise 1: Possible solutions



	P	I / E	C	O
1. Therapy	For adults with severe asthma, does	a stay in a mountain climate		reduce asthmatic attacks?
2. Prevention	For overweight children, does	an increase in community recreation	compared to educational programs	result in a reduced risk of diabetes mellitus?
3. Diagnosis	In patients with malaria	are molecular diagnostics based on PCR	or rapid diagnostic tests (RDTs)	more accurate in making a diagnosis?
4. Prognosis	In healthy older women with hip fracture,	who do not undergo surgery		what is the risk of mortality after one year?
5. Aetiology	Among concertgoer, what is the effect of	exposure to <80 dB	compared to ≥80 dB	on hearing impairment?

# Resources – where do I find what?

- Clinical knowledge portals → Basic knowledge and more
- Library catalogues → Monographs, dissertations
- **Electronic databases → mainly journal articles**
- Study register → completed/ongoing trials
- Internet/Webpages → grey and other literature



<https://pixabay.com/images/id-3411617/>

# Resources: Clinical knowledge portals

## UpToDate & AMBOSS

### UpToDate

- Fee-based database (license for **local** use in the University Medical Library and University Hospital Basel, no VPN access)
- Material prepared by experts for everyday clinical use (**medical, peer-reviewed "Wiki"**)
- Patient information



### AMBOSS

- **Reference work** & learning program (basic campus license at the University of Basel)
- Knowledge app (mobile & offline)
- Guidelines-compliant and cross-disciplinary





# PubMed Clinical Queries



## PubMed Clinical Queries

Results of searches on this page are limited to specific clinical research areas. For comprehensive searches, use [PubMed](#) directly.

### Clinical Study Categories

This column displays citations filtered to a specific clinical study category and scope. These search filters were developed by [Haynes RB et al.](#) See more [filter information](#).



#### Learn

- [About PubMed](#)
- [FAQs & User Guide](#)
- [Finding Full Text](#)



#### Find

- [Advanced Search](#)
- [Clinical Queries](#)**
- [Single Citation Matcher](#)

### Systematic Reviews

This column displays citations for systematic reviews. See [filter information](#) or additional [related sources](#).



#### Download

- [E-utilities API](#)
- [FTP](#)
- [Batch Citation Matcher](#)



#### Explore

- [MeSH Database](#)
- [Journals](#)
- [Legacy PubMed \(available until at least 10/31/2020\)](#)

### Medical Genetics

This column displays citations pertaining to topics in medical genetics. See more [filter information](#).

# Resources: Library catalogues

## swisscovery

swisscovery Basel

New search Journals by category Index search Interlibrary loan Help

swisscovery Basel

swisscovery

swisscovery without CDI

Central Discovery Index (CDI)

Advanced Search

Welcome to **swisscovery** Basel

[Activate VPN](#), if you have a unibas account.

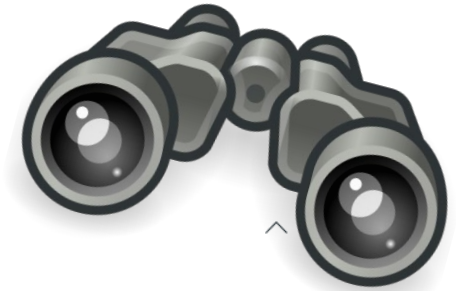
Contact

Information

[https://slsp-ubs.primo.exlibrisgroup.com/discovery/search?vid=41SLSP\\_UBS:live&lang=en](https://slsp-ubs.primo.exlibrisgroup.com/discovery/search?vid=41SLSP_UBS:live&lang=en)

- swisscovery Basel: Holdings of the Basel library network
- Swisscovery: Holdings of the Swiss library network
  - Inventory of most scientific libraries in Switzerland
- especially relevant for books/e-books and dissertations

# Resources: electronic databases



<https://ub.unibas.ch/en/locations/university-medical-library/>

## Electronic resources

### PubMed

- > [Medline via PubMed](#)
- > [Medline via OVID](#)

### Embase

- Focus on pharmaceutical research
- > [Embase via Elsevier](#)
  - > [Embase via OVID](#)

### > [Cochrane-Library](#)

EBM literature database  
Also available for the > [layperson](#)

### > [Cinahl](#)

Focus on nursing and other healthcare professions

### > [UpToDate](#)

"Point-of-Care" database for evidence-based medicine in the clinic.  
Access available only through the computer network in the medical library and the University Hospital Basel. VPN access from the university's network is not possible.

### > [AMBOSS](#)

Learning programme and reference work for medical students.

### > [Journal Citation Reports InCites](#)

To search for impact factors and journal rankings

### > [Web of Science \(WoS\)](#)

Multi-disciplinary, natural sciences literature database

### > [Library catalogue / E-books](#)

For viewing e-books, filter the results with "Uni Basel -Online" at the top right

### > [VISE Virtual Course reserves](#)

For semester literature (print and e-books) recommended by lecturers

### > [Further databases](#)

Licensed access within the network of the university and the University Hospital Basel

### > [E-journals](#)

Licensed access within the network of the university and the University Hospital Basel

# Resources: electronic databases

	Clinical medicine	Biomedicine	Biology	Pharmacy Pharmacology	Psychology Psychiatry	Health Sciences	Nursing, Health professions
PubMed	✗						
Embase	✗			✗			
Biosis Previews							
Cochrane Library	✗					✗	
CINAHL						✗	✗
PsycINFO							
Scopus							
Web of Science							

Adapted table by Martina Gosteli

# Resources: Study registers

- Trials usually have to be registered. Many countries have their own registers, [https://en.wikipedia.org/wiki/List\\_of\\_clinical\\_trial\\_registries](https://en.wikipedia.org/wiki/List_of_clinical_trial_registries)
- References to planned, ongoing and completed studies. Partly not (yet) published study results
- Mostly independent databases, similar features and functions as specialist databases

The best known are probably:

- WHO International Clinical Trials Registry Platform (international)
- ClinicalTrials.gov (USA)
- EudraCT (Europe)



Shots for all

<https://www.dvidshub.net/image/1836493>

# Resources: Internet/Webpages

- Especially relevant for background and *grey literature*
- Make the right choice with Internet sources! Critically assess the quality & authenticity of the information.
- Important questions that arise for the evaluation of Internet sites:

- **WHO** is the publisher of the website?
- **WHY** is the website offered?
- **HOW** is the website designed?



## **WHO** is the publisher of the website?

- Is the publisher known? Is it a reputable institution?
- If the publisher is not directly visible - look for information in the imprint or in "About us"

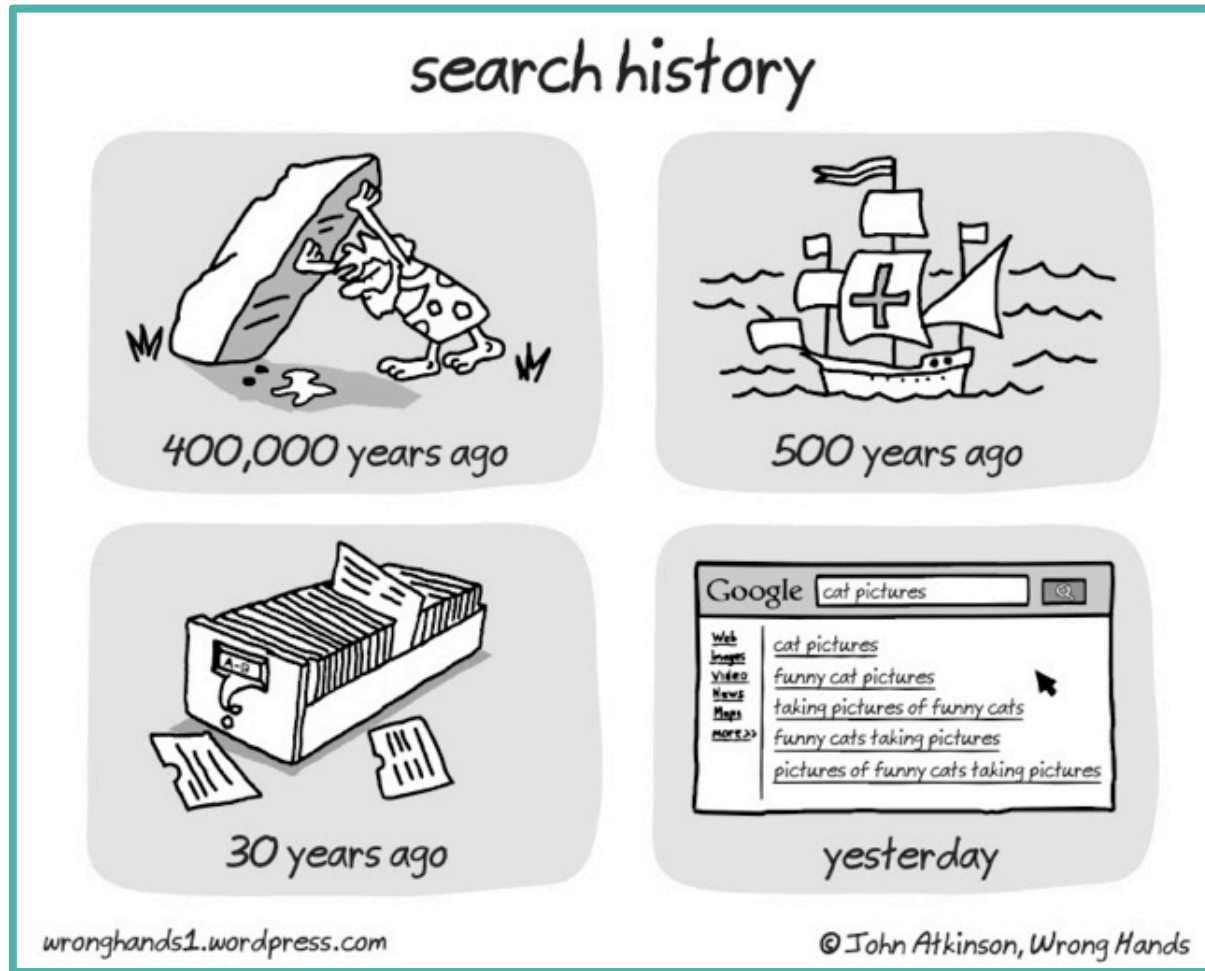
## **WHY** is the website offered?

- Is there an educational mandate, e.g. by a state or cantonal institution (research institute, university institution, office, authority etc.)?
- Are these advertising messages from providers with commercial, political or religious interests?

## **HOW** is the website designed?

- Professional, up-to-date, well maintained: Contents with serious and complete bibliography & further links?
- Styled for high gloss - advertising purposes visible?
- Private providers, "offender by conviction"? → partly "simply knitted", not always up to date, no or only few serious literature references

# Okay, but how do I search?





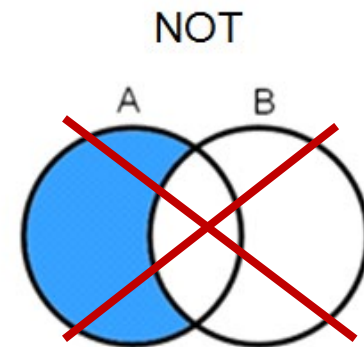
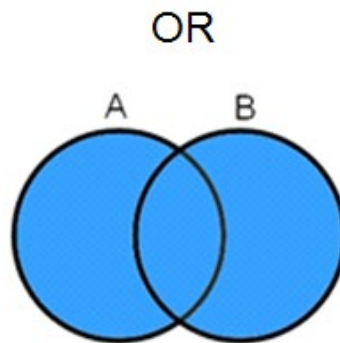
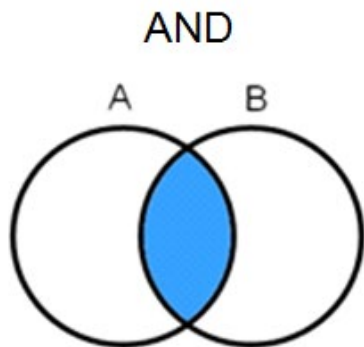
# Boolean operators

AND = both search terms occur

OR = at least one of the two search terms occurs

NOT = without this search term

Attention: 'NOT' usually leads to unwanted exclusions. Best to contact an information specialist



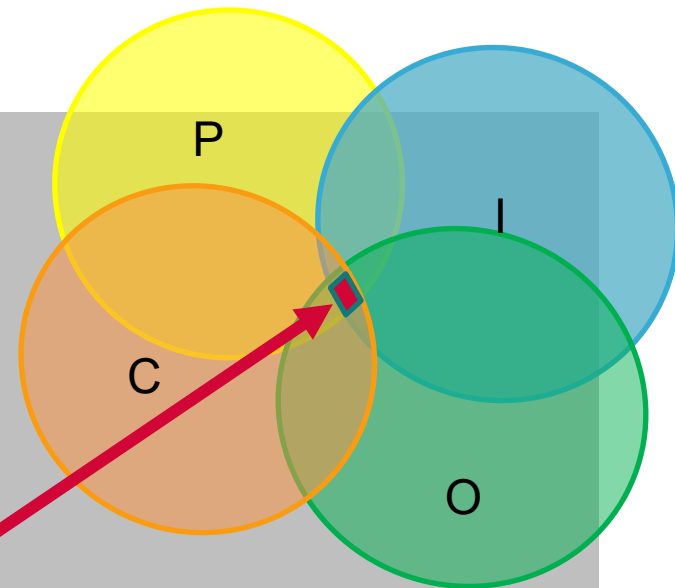
# Boolean operators: Combining the PICO aspects

**P AND I AND C AND O**

or with synonyms:

**(Population 1 OR Population 2 OR ...)** AND  
**(Intervention 1 OR Intervention 2 OR ...)** AND  
**(Control 1 OR Control 2 OR ...)** AND  
**(Outcome 1 OR Outcome 2 OR ...)**

**Intersection = final search results**



**Note:** Not all aspects of the PICO question need to be included in a search  
→ initially only search for a few and clearly describable aspects (e.g. drugs)  
→ Outcomes often not mentioned in the abstract. Therefore omit them if possible.

**PECO:** unlike in PICO, the outcome is almost always used in the search terms with the PE(C)O framework.

# Boolean operators: Exercise 2



1	Coronavirus
2	Covid19
3	Severe acute respiratory syndrome
4	Mask
5	N95
6	Infection rate

## Task:

Combine the 6 partial searches with the Boolean operators

**AND** plus **OR**, put **brackets** where appropriate

**e.g. 1 AND (2 OR 3) OR 4 ...**

# Boolean operators: Exercise 2 – Solution



1	Coronavirus
2	Covid19
3	Severe acute respiratory syndrome
4	Mask
5	N95
6	Infection rate

**Solution:**

**(1 OR 2 OR 3) AND (4 OR 5) AND 6**

**Coronavirus**

**Mask**

**Infection rate**

# Google Scholar

Google Scholar

<https://scholar.google.ch/>

Beliebige Sprache  Seiten auf Deutsch

**Auf den Schultern von Riesen**

Google Scholar in English

Google Scholar

<https://scholar.google.com/>

Articles  Case law

**Stand on the shoulders of giants**

# Google Scholar: Advantages

## Suitable for fast, simple searches

- Freely accessible, simple search
- Large amount of scientific data
- Includes various document types such as journals and conference proceedings, reports, patents, etc.
- Searches full texts, e.g. method section
- Link to articles that cite a specific article ("Cited by")
- "Cited by" option also searches citations in books
- Scientific literature partly freely accessible and library links to licensed full text:

[Get fulltext Uni Basel](#)

# Google Scholar: Disadvantages

## Less suitable for systematic and reproducible searches

- Search algorithms not comprehensible, searches only conditionally reproducible
- Only 1000 results visible
- Only one reference exportable at a time
- No advanced search, few filters
- Boolean operators incorrect (<https://www.ncbi.nlm.nih.gov/pubmed/27076802>)
- Author, title and journal search functions do not work properly (missing metadata, wrong field recognition)
- Too many hits and relevance not reliable

# PubMed

- **Public** access to **Medline** database
- Most comprehensive medical search interface
- Fundamental redesign in 2020 (New PubMed)
- Publisher: US National Library of Medicine (NLM)
- Daily updates
- Annually ~1 Mio new citations
- Search in full text not possible! (abstracts freely accessible)





# PubMed: Useful Links

## PubMed access via Uni Basel

<https://pubmed.ncbi.nlm.nih.gov/?otool=unibaslib>

## PubMed® Online Training:

<https://learn.nlm.nih.gov/rest/training-packets/T0042010P.html>

## Youtube Tutorials

<https://www.youtube.com/watch?v=uyF8uQY9wys&list=PL7dF9e2qSW0YkxmDTsUG6p4hJjYOPT0Uj>

## Training courses at the University Library

<https://fortbildung.unibas.ch/courses/organizer/university-library-30/1>

# PubMed: Free-text search



<https://www.needpix.com/photo/1637259/artificial-neural-network-ann-neural-network-neural-network-brain-mind-computer-machine-learning>

## Intelligent search engine:

PubMed is capable of intelligent implementation of a "simple search query" (= free-text search); (= automatic term mapping → details in the advanced course!)

The search terms are matched against a Subject translation table (for example **MeSH** → details in the advanced course!) and different spellings are taken into account (e.g. singular/plural, American/British English).

e.g.: massage exercise → also looks for other spellings

massage OR massages OR massaged,

exercise OR exercises OR exercised OR exercising

You can enter one term for each aspect of the PICO question.

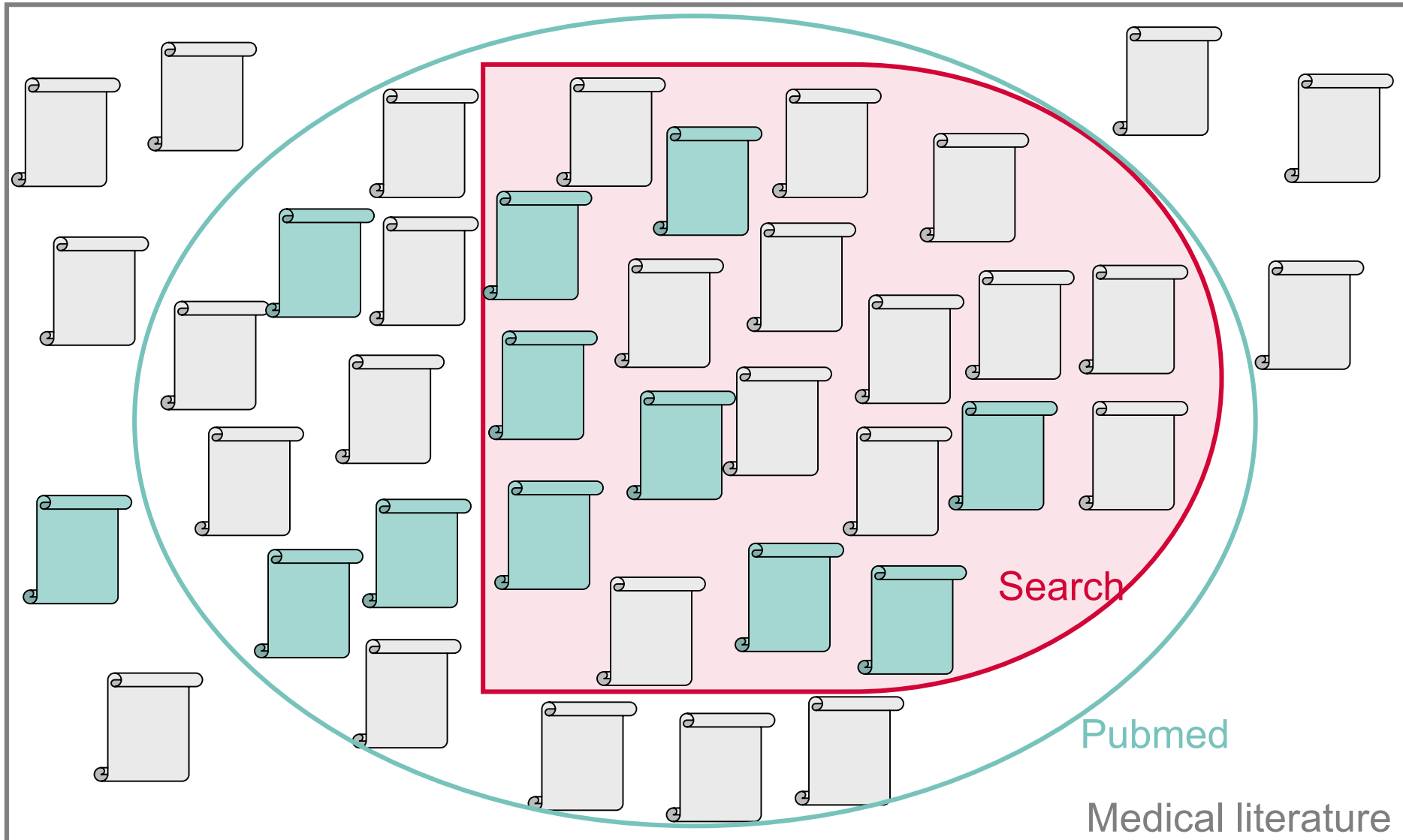
- Without Boolean operators, **“AND”** is assumed between the words

# PubMed Live! What do I find where?

## **Live demonstration in the course**

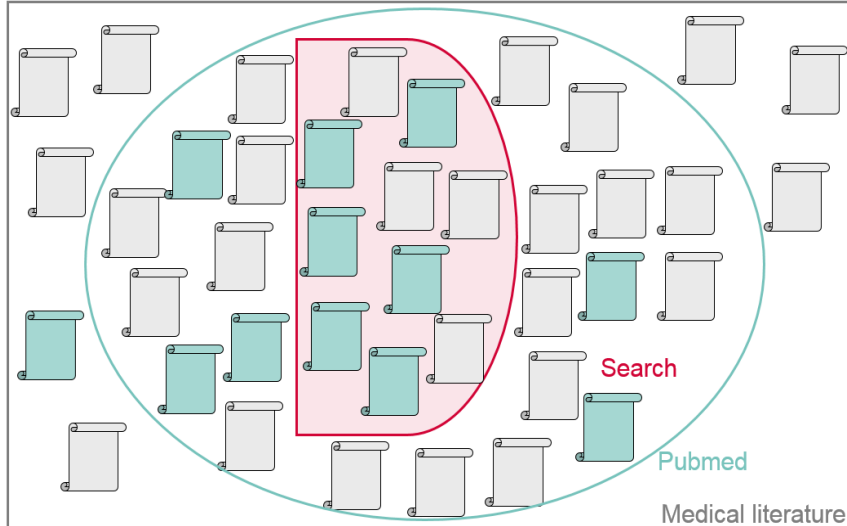
Documented by screenshots in the handout (appendix)

# Precision vs. sensitivity



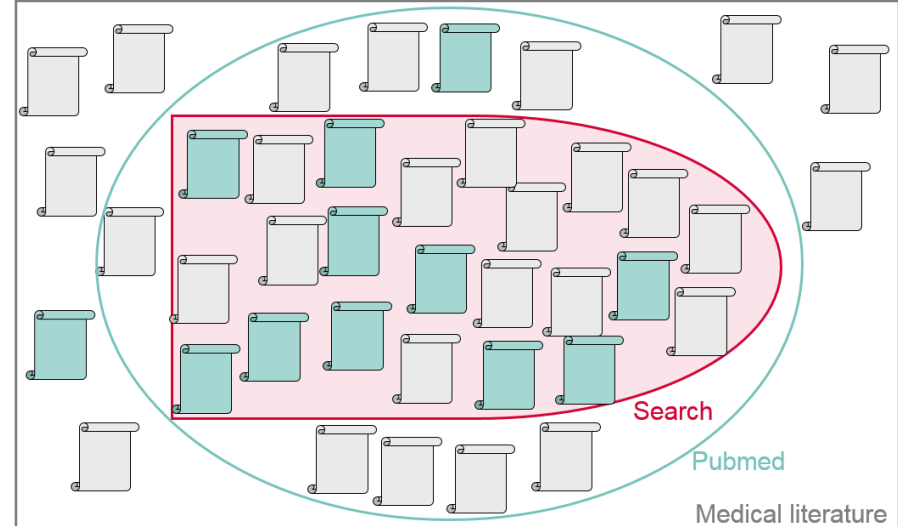
# Precision vs. sensitivity

**Precision:** specific, narrow; few hits (only a few of the relevant hits found but little noise)



e.g. for daily hospital routine, master thesis?

**Sensitivity:** complete, broad; many hits (almost all of the relevant hits found but among lots of noise)



e.g. for Systematic Reviews, Health Technology Assessments, ...

→ Try different strategies and observe how this changes the results

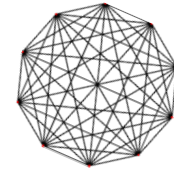
# Precision vs. sensitivity

**Precision** ↑  
(fewer hits)



vs

**Sensitivity** ↑  
(more hits)



Precise terms (e.g. diabetes mellitus type 2; pain reduction)

Targeted, no (or few) synonyms and word variations

Set filters

Combine more PICO aspects with AND, e.g.

P AND I AND C AND O

General terms (e.g. Diabetes; pain)

More synonyms and word variations per search block

Do not set filters

Combine fewer PICO aspects with AND, e.g.

P AND I

P AND I AND C

I AND C

# Free-text search in PubMed: Exercise 3a



In adult patients with a meniscus tear, is physiotherapy or arthroscopic partial meniscus resection better to reduce pain and increase quality of life?

Search, PubMed, 12.10.2021	Hits
Meniscus tear physiotherapy Arthroscopic meniscal resection Pain reduction Quality of life	0
Meniscus tear physiotherapy Arthroscopic meniscal resection Pain	36
Meniscus tear physiotherapy Arthroscopic meniscal resection Pain <b>Filters: Systematic Reviews</b>	7

# Free-text search in PubMed: Exercise 3b



Does advertising tobacco products increase smoking prevalence in teenager?

Search, PubMed, 12.10.2021	Hits
teenager advertising tobacco products increase smoking prevalence	121
teenager advertising tobacco products increase smoking prevalence Filters: Systematic Reviews	1
teenager advertising tobacco smoking prevalence	762
teenager advertising tobacco smoking prevalence Filters: Systematic Reviews	6



# Free-text search in PubMed: Exercise 3a Solution



In adult patients with a meniscus tear, is physiotherapy or arthroscopic partial meniscus resection better to reduce pain and increase quality of life?

Search, PubMed, 12.10.2021	Hits
Meniscus tear physiotherapy Arthroscopic meniscal resection Pain reduction Quality of life	0
Meniscus tear physiotherapy Arthroscopic meniscal resection Pain	36
Meniscus tear physiotherapy Arthroscopic meniscal resection Pain <b>Filters: Systematic Reviews</b>	7

(Meniscus tear <b>OR</b> Meniscal tear) <b>AND</b> (physiotherapy <b>OR</b> Physical therapy <b>OR</b> Manual therapy <b>OR</b> Exercise therapy <b>OR</b> Non-surgical intervention) <b>AND</b> (Arthroscopic meniscal resection <b>OR</b> Arthroscopic partial meniscectomy) <b>AND</b> Pain <b>Filters: Systematic Reviews</b>	53  9
--	-------------

# Free-text search in PubMed: Exercise 3b Solution



Does advertising tobacco products increase smoking prevalence in teenager?

Search, PubMed, 12.10.2021	Hits
teenager advertising tobacco products increase smoking prevalence	121
teenager advertising tobacco products increase smoking prevalence <b>Filters: Systematic Reviews</b>	<b>1</b>
teenager advertising tobacco smoking prevalence	762
teenager advertising tobacco smoking prevalence <b>Filters: Systematic Reviews</b>	<b>6</b>

(teenager OR adolescent OR teen) AND (advertising OR promoting) AND (tobacco OR cigarettes) AND (smoking prevalence OR smoking habit OR smoking susceptibility)	4452
<b>Filters: Systematic Review</b>	<b>45</b>
<b>Filters: Systematic Review and 5 years</b>	<b>17</b>

# Critical Appraisal

Essential for any kind of literature review (e.g. master thesis) or if you want to apply study results (e.g. on patients)

## Are the results **valid**

*(Objectives clearly described? Adequate methods? Selection of study participants?)*

## **trustworthy**

*(Bias? Results clearly described and precise? Appropriate data analysis?)*

## **and relevant?**

*(Were all relevant outcomes measured? Can the results be transferred to other settings? Is the study population comparable to the patient in practice?)*

- Short, simple introduction: <https://youtu.be/ikuVmCtBvF0>
- Overview of different tools: <https://guides.temple.edu/systematicreviews/criticalappraisal>
- Understanding the numbers: <https://youtu.be/3ZYSyZyqxjE>

# Quiz

Use the link or QR code

<https://app.klicker.uzh.ch/join/spo>

OR



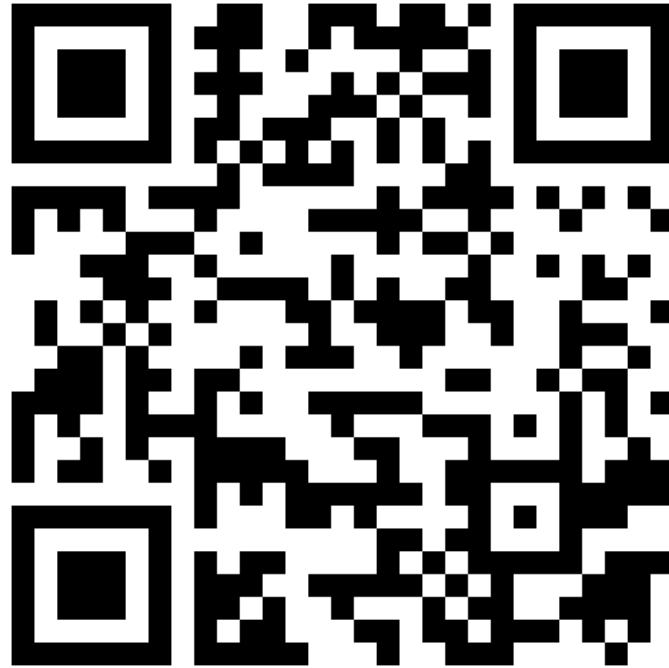
# Take Home Messages

- Just start!
- Document
- Boolean combinations with AND and OR require brackets
- In addition to : clinical knowledge portals and internet sources, PubMed is the most comprehensive medical search interface
- Critically appraise results
- take time for the first steps  
→ then it will go faster later



<https://catalog.archives.gov/id/535413>

**Please fill out the survey**



**<https://k11331.evasys.de/evasys/online.php?p=D5KEQ>**

# Thank you for your attention!

## Contact:

Jacqueline Huber, [jacqueline.huber@swisstph.ch](mailto:jacqueline.huber@swisstph.ch)

## Further information:

- Swiss TPH library offers free advice and support for its members on literature searching and using EndNote. We also offer a document delivery service.

Contact: [library@swisstph.ch](mailto:library@swisstph.ch)

- The University Medical library also offers support:

<https://ub.unibas.ch/en/locations/university-medical-library/>

# Overview Handout Appendix (for your information)

- Review types
- PubMed: What do I find where?
- From database to full text: Access via VPN and swisscovery
- Ordering of not accessible PDFs
- Export of references
- Reference management software: Frequently used programs
- PubMed: My NCBI Account



# Systematic Reviews

⇒ Umbrella term for systematic, quality-assessed, synthesis of study results on a research question

## Individual steps of a Systematic Review:

- Defining a scientific question
- Set inclusion/exclusion criteria
- Search for studies / evidence
- Select studies / evidence and extract data
- Assess the risk of bias of included studies
- Synthesis of the results, meta-analysis
- Interpret results and draw conclusions

**Cochrane reviews** are systematic reviews that follow the methodology given in the **Cochrane Handbook**.

(<https://training.cochrane.org/handbook/current>)

# Scoping Reviews

- ⇒ Usually answer broader questions than classic systematic reviews
  - often asked in Public Health
- ⇒ No risk of bias assessment.

## Indications for a Scoping Review:

- As a precursor to a systematic review.
- To identify and analyze knowledge gaps.
- To identify the types of available evidence in a given field.
- To clarify key concepts/ definitions in the literature.
- To examine how research is conducted on a certain topic or field.
- To identify key characteristics or factors related to a concept.

From: Munn et al. (2018) 'Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach', *BMC Med Res Methodol*, vol. 18, no. 1, pp. 143.

## Further guidance and other review types:

- Joanna Briggs Institute Manual for Evidence Synthesis:  
<https://jbi-global-wiki.refined.site/space/MANUAL>

# Narrative Review and other review types

⇒ Describes and appraises previous work but does not describe specific methods by which the reviewed studies were identified, selected and evaluated

## Indications for a Narrative Review:

- As part of background or discussion section
- To use as rationale for new research

## Limitations:

- Underlying assumptions and agenda often unknown
- High risk for bias in selecting and assessing the literature
- Cannot be replicated

## Other review types:

- Temple University Lib Guide:  
<https://guides.temple.edu/c.php?g=78618&p=4156607>
- Sutton et al. (2019) '*Meeting the review family: exploring review types and associated information retrieval requirements*'. doi:[10.1111/hir.12276](https://doi.org/10.1111/hir.12276)

# Find Reviews

e.g. via:

**PubMed:** with corresponding article type filter

ARTICLE TYPE	
<input type="checkbox"/>	Books and Documents
<input type="checkbox"/>	Clinical Trial
<input type="checkbox"/>	Meta-Analysis
<input type="checkbox"/>	Randomized Controlled Trial
<input type="checkbox"/>	Review
<input checked="" type="checkbox"/>	Systematic Reviews

**Epistemonikos:** 

- Free access
- Systematic reviews and other evidence synthesis
- Meta search engine accessing other databases
- <https://www.epistemonikos.org/>

**Cochrane Library:** 

- Access with license (Switzerland has a national license)
- Cochrane Reviews
- Browsing by topic possible
- <https://www.cochranelibrary.com/>

# Find Reviews: Epistemonikos

Diabetes AND adiposity AND gastric bypass

[Advanced search](#) [Help](#)

## By category

**All**

Broad Syntheses (0)

Systematic Reviews (2)

Structured Summaries (0)

Primary Studies (1)

## By year

**All**

Last year

Last 5 years

Last 10 years

Custom range

Results: 1-3 of 3

■ Systematic review ⚡

**American association of clinical endocrinologists and American college of endocrinology comprehensive clinical practice guidelines for medical care of patients with obesity.**

Year » 2016

Authors » Garvey W.T. , Mechanick J.I. , Brett E.M. , Garber A.J. , Hurley D.L. , Jastreboff A.M. - **More**

Journal » Endocrine Practice

Links » Pubmed , DOI

Without references

■ Systematic review ⚡

**Long-term outcomes of metabolic and bariatric surgery in adolescents with severe obesity with a follow-up of at least 5 years: A systematic review.**

Year » 2019

# Systematic Reviews: Cochrane Library



Trusted evidence.  
Informed decisions.  
Better health.

Access provided by: Basel University Library

English

Cochrane.org

Sign In

Title Abstract Keyword



Browse

Advanced search

Cochrane Reviews

Trials

Search Reviews (CDSR)

Browse Reviews

ISSUES

Editorials

Special Collections

Supplements

About the CDSR

## Browse by Topic

Browse the *Cochrane Database of Systematic Reviews*...

- |  |  |                                     |
|--|--|-------------------------------------|
| <b>A</b>   | <b>G</b>                                 | <b>P</b>                            |
| <b>Allergy &amp; intolerance</b>                           | <b>Gastroenterology &amp; hepatology</b> | <b>Pain &amp; anaesthesia</b>       |
| <b>B</b>   | <b>Genetic disorders</b>                 | <b>Pregnancy &amp; childbirth</b>   |
| <b>Blood disorders</b>                                     | <b>Gynaecology</b>                       | <b>Public health</b>                |
| <b>C</b>   | <b>H</b>                                 | <b>R</b>                            |
| <b>Cancer</b>  | <b>Health &amp; safety at work</b>       | <b>Rheumatology</b>                 |
| <b>Child health</b>  | <b>Heart &amp; circulation</b>           | <b>S</b>                            |
| <b>Complementary &amp; alternative medicine</b>            | <b>I</b>                                 | <b>Skin disorders</b>               |
| <b>Consumer &amp; communication strategies</b>             | <b>Infectious disease</b>                | <b>T</b>                            |
| <b>D</b>   | <b>K</b>                                 | <b>Tobacco, drugs &amp; alcohol</b> |
| <b>Dentistry &amp; oral health</b>                         | <b>Kidney disease</b>                    | <b>U</b>                            |
| <b>Developmental, psychosocial &amp; learning problems</b> | <b>L</b>                                 | <b>Urology</b>                      |
| <b>Diagnosis</b>   | <b>Lungs &amp; airways</b>               | <b>W</b>                            |
| <b>E</b>   | <b>M</b>                                 | <b>Wounds</b>                       |
| <b>Ear, nose &amp; throat</b>                              | <b>Mental health</b>                     |                                     |
| <b>Effective practice &amp; health systems</b>             | <b>Methodology</b>                       |                                     |
| <b>Endocrine &amp; metabolic</b>                           | <b>N</b>                                 |                                     |
| <b>Eyes &amp; vision</b>                                   | <b>Neonatal care</b>                     |                                     |
|  | <b>Neurology</b>                         |                                     |
|  | <b>O</b>                                 |                                     |
|  | <b>Orthopaedics &amp; trauma</b>         |                                     |

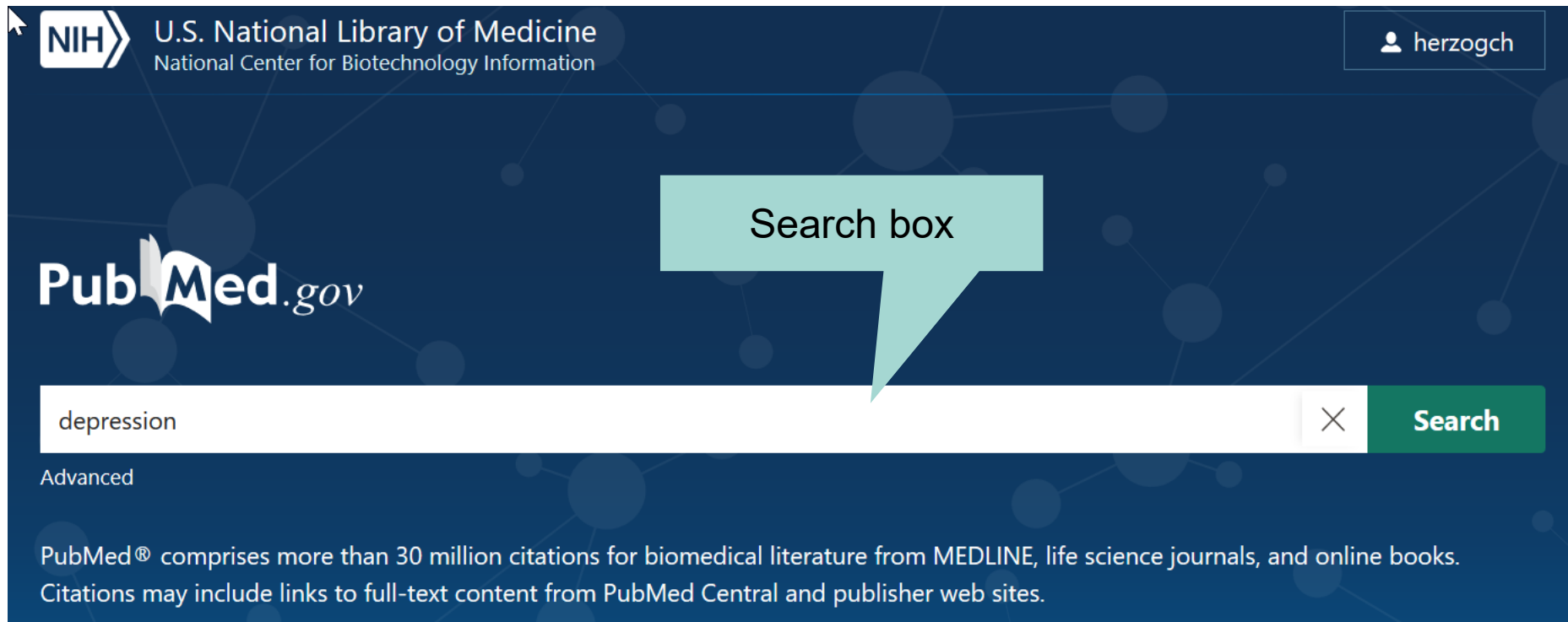


**Preventing falls in older people**  
Read the Special Collection



**Doug Altman: a legacy**  
Read the Editorial

# PubMed: What do I find where?



The image shows the PubMed.gov search interface. At the top left, there is the NIH logo and the text "U.S. National Library of Medicine National Center for Biotechnology Information". At the top right, there is a user profile icon labeled "herzogch". The PubMed.gov logo is prominently displayed on the left side. In the center, a light blue callout box with a pointer to the search input field contains the text "Search box". The search input field contains the text "depression" and has a clear button (X) to its right. A green "Search" button is located to the right of the input field. Below the search bar, the text "Advanced" is visible. At the bottom of the interface, there is a paragraph of text: "PubMed® comprises more than 30 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites."

# Access to the Advanced Interface

**PubMed.gov** depression   [Advanced](#) [Create alert](#) [Create RSS](#) [User Guide](#)

Sorted by: Best match

MY NCBI FILTERS

RESULTS BY YEAR

1788 2022

553,731 results

**Depression** and pain comorbidity: a literature review.  
1 Bair MJ, Robinson RL, Katon W, Kroenke K.  
Cite Arch Intern Med. 2003 Nov 10;163(20):2433-45. doi: 10.1001/archinte.163.20.2433.  
PMID: 14609780 Review.  
Share The prevalences of pain in **depressed** cohorts and **depression** in pain cohorts are higher than when these conditions are individually examined. The presence of pain negatively affects the recognition and treatment of **depression**. When pain is moderate to severe, ...

**Depression** in late life: review and commentary.  
2 Blazer DG.  
Cite J Gerontol A Biol Sci Med Sci. 2003 Mar;58(3):249-65. doi: 10.1093/gerona/58.3.m249.  
PMID: 12634292 Review.  
Share **Depression** is perhaps the most frequent cause of emotional suffering in later life and significantly decreases quality of life in older adults. In recent years, the literature on late-life **depression** has exploded. Many gaps in our understanding of the outcome of lat ...

TEXT AVAILABILITY

Abstract

Free full text

Full text

ARTICLE ATTRIBUTES



# Presentation of the results

The screenshot shows the PubMed search interface. At the top left is the PubMed.gov logo. A search bar contains the term 'depression' with a clear button (X) and a blue 'Search' button. Below the search bar are links for 'Advanced' and 'Create alert', and a 'User Guide' link on the right. A row of buttons includes 'Save', 'Email', 'Send to', and 'Sorted by: Best match' with a gear icon for settings. The 'Sorted by: Best match' button is circled in red. On the left side, there are filters for 'MYNCBI FILTERS' and 'RESULTS BY YEAR'. The 'RESULTS BY YEAR' section includes a bar chart showing the number of results from 1788 to 2020. Below the chart are options for 'TEXT AVAILABILITY' (Abstract, Free full text, Full text) and 'ARTICLE ATTRIBUTE' (Associated data). The main results area shows 549,650 results. The first result is 'Mental health: a world of depression.' by Smith K., published in Nature in 2014. The second result is 'Editorial: A Systematic Review of Depression.' by Cui R., published in Curr Neuropharmacol. in 2015, marked as a 'Free PMC article'. The third result is 'Depression: a change of mind.' by Anthes E., published in Nature in 2014. Teal callout boxes highlight the 'Sorted by: Best match' button and the 'Cite' and 'Share' links for the first result.

PubMed.gov

depression

Search

Advanced Create alert User Guide

Save Email Send to

Sorted by: Best match

MYNCBI FILTERS

RESULTS BY YEAR

1788 2020

TEXT AVAILABILITY

Abstract

Free full text

Full text

ARTICLE ATTRIBUTE

Associated data

549,650 results

**Mental health: a world of depression.**

1 Smith K.  
Nature. 2014 Nov 13;515(7526):181. doi: 10.1038/515180a.  
PMID: 25391942 No abstract available.

“ Cite Share

**Editorial: A Systematic Review of Depression.**

2 Cui R.  
Curr Neuropharmacol. 2015;13(4):480. doi: 10.2174/1570159x1304150831123535.  
PMID: 26412067 **Free PMC article.** Review. No abstract available.

“ Cite Share

**Depression: a change of mind.**

3 Anthes E.  
Nature. 2014 Nov 13;515(7526):185-7. doi: 10.1038/515185a.

default sorting by "best match" (can be easily changed)

Links to abstract view

# Abstract View

Links to full text

Comparative Study > Int J Psychiatry Clin Pract. 2017 Nov;21(4):314-317.

doi: 10.1080/13651501.2017.1324036. Epub 2017 May 15.

FULL TEXT LINKS



Get full text

## Comparison of depression symptoms between primary depression and secondary-to-schizophrenia

Direct link to the previous (or next) abstract

1  
she Rashid 2  
nd  
DOI: 10.1080/13651501.2017.1324036

Links to all fields in the view

ACTIONS



SHARE



PREV RESULT  
2 of 440,806

### Abstract

**Objectives:** This study exclusively aimed to clinically assess which symptom pattern discriminates primary depression from depression-secondary to-schizophrenia.

**Methods:** A total of 98 patients with primary depression and 71 patients with secondary-to-schizophrenia depression were assessed for identifying the clinical phenomena of depression. Diagnosis of schizophrenia was confirmed by Mini International Neuropsychiatric Interview. Each participant was, however, assessed by Patient Health Questionnaire-9 as well as Calgary Depression Scale for Schizophrenia (CDSS) for possible concurrent depressive symptoms.

**Results:** Depressed mood, loss of interest, and anhedonia were more common in primary depression, whereas sleep disturbance was more common in depression secondary to schizophrenia.

**Conclusions:** It is clinically hard to differentiate primary from secondary-to-schizophrenia depression, especially in the absence of obvious psychotic symptoms. However, the classical symptoms of depression like subjective depressed mood, anhedonia, reduced energy and pathological guilt are more prominent in the primary depression.

**Keywords:** Depression; common symptoms; schizophrenia.

Find more articles

PAGE NAVIGATION

< Title & authors

Abstract

Similar articles

Cited by

Publication types

MeSH terms

Related information

LinkOut - more resources

### Similar articles

# From the database to full text via VPN

Abstract view of article

FULL TEXT LINKS



The screenshot shows the SpringerLink interface for an article. At the top, there is a search bar and navigation links for Home, Contents, and Log in. The article title is "Efficacy of St. John's wort extract WS<sup>®</sup> 5570 in acute treatment of mild depression", published in "European Archives of Psychiatry and Clinical Neuroscience" in December 2007. The authors listed are S. Kasper, M. Gastpar, W. E. Müller, H. P. Volz, A. Dienel, M. Kieser, and H. J. Möller. The article is marked as an "ORIGINAL PAPER" and has 19 citations and 1 share. On the right side, there is a sidebar with a "Download PDF" button circled in red, and a list of article sections including Abstract, Introduction, Methods, Results, Discussion, Footnotes, References, and About this article.

## Abstract

The University of Basel has licenses for many journals. From outside the university network, you can connect to the **VPN** to take advantage of this and view the full texts.

# PubMed: From the database to full text via swisscovery

Comparative Study > Int J Psychiatry Clin Pract. 2017 Nov;21(4):314-317.

doi: 10.1080/13651501.2017.1324036. Epub 2017 May 15.

## Comparison of depression symptoms between primary depression and secondary-to-schizophrenia depression

FULL TEXT LINKS

View full text

Get full text

ACTIONS

Cite

Favorites

SHARE



PAGE NAVIGATION

< Title & authors

Abstract

Similar articles

Cited by

Publication types

MeSH terms

Related information

LinkOut - more resources

If no full text link of publisher on PubMed try swisscovery

Appears when you go to PubMed via this link:  
<https://pubmed.ncbi.nlm.nih.gov/?otool=unibaslib>

Diagnosis of schizophrenia was confirmed by MINI international neuropsychiatric interview. Each participant was, however, assessed by Patient Health Questionnaire-9 as well as Calgary Depression Scale for Schizophrenia (CDSS) for possible concurrent depressive symptoms.

**Results:** Depressed mood, loss of interest, reduced energy and pathological guilt were more common in primary depression, whereas sleep disturbance and guilty ideas of reference were more amounting towards the diagnosis of depression secondary-to-schizophrenia.

**Conclusions:** It is clinically hard to differentiate primary from secondary-to-schizophrenia depression, especially in the absence of obvious psychotic symptoms. However, the classical symptoms of depression like subjective depressed mood, anhedonia, reduced energy and pathological guilt are more prominent in the primary depression.

**Keywords:** Depression; common symptoms; schizophrenia.

### Similar articles

# PubMed: From the database to full text via swisscovery

Comparison of depression symptoms between primary depression and secondary-to-schizophrenia depression.

Rahim, Twana; Rashid, Roshe

ISSN: 1365-1501 , 1471-1788; DOI: 10.1080/13651501.2017.1324036; PMID: 28503978

International journal of psychiatry in clinical practice. , 2017, Vol.21(4), p.314-317

[Available Online >](#)

Fulltext link via “View Online”

Links

Photocopy request

View Online

Taylor & Francis Medical Library

Available from 01/01/1997 volume: 1 issue: 1.


Show license



Look for Open Access version with Unpaywall



# PubMed: From the database to full text via swisscovery

 **[Public health as a social innovation].**  
Rosenbrock, R  
ISSN: 0941-3790 , 1439-4421; PMID: 7756762  
Das Gesundheitswesen. , 1995, Vol.57(3), p.140-144  
[Check holdings Basel - UB Hauptbibliothek Magazin \(UBH Med Zs 779\) >](#)

Top  
Links  
Loan and request options  
Send to  
Virtual Browse

Links  
Photocopy request form [☑ >](#)

**Loan and request options**

[← Back to locations](#)

**Basel - UB Hauptbibliothek**  
-, Magazin [UBH Med Zs 779](#)  
Summary holdings: 54(1992)-69(2007)  
Notes: [Bezug eingestellt]

On loan until 25/10/2021 23:00:00 CEST (0 requests) Jg. 69 (2007)  
28 Days Loan

Request / Digitization [▼](#)

If not available online you can order a copy via swisscovery

# PubMed: From the database to full text via swisscovery

[Public health as a social innovation].

Rosenbrock, R

ISSN: 0941-3790 , 1439-4421; PMID: 7756762

Das Gesundheitswesen. , 1995, Vol.57(3), p.140-144

📖 Check holdings [Basel - UB Hauptbibliothek Magazin \(UBH Med Zs 779\)](#) >

Choose the correct item, click on digitization and fill out the form (fee-based).  
Alternatively, if you are a Swiss TPH student, you can send a copy request with the Pubmed link via email to [library@swisstph.ch](mailto:library@swisstph.ch) and we will order it for you.

Item in place (0 requests) **Jg. 57 (1995)**

28 Days Loan

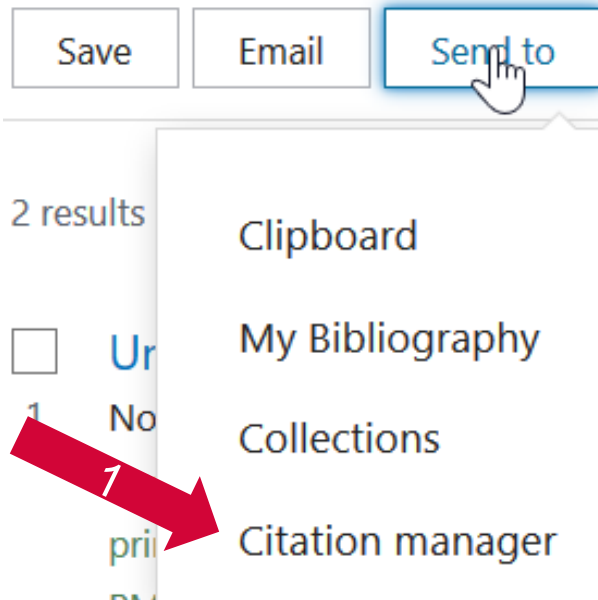
- Additional call number: UBH Med Zs 779:57
- Material Type: Bound Issue
- Location: Basel - UB Hauptbibliothek Magazin UBH Med Zs 779
- Barcode: 0UBU0795784

Request

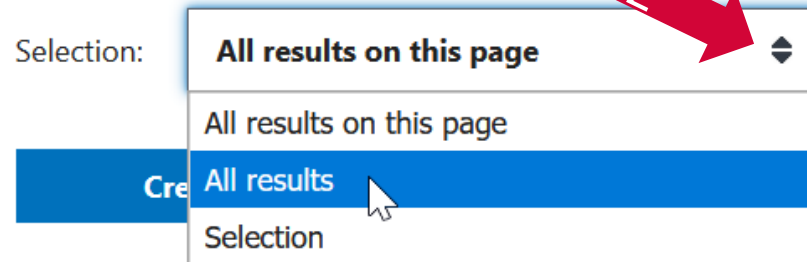
Digitization



# Export of references



Create a file for external citation management software





# Reference management software: Frequently used programs

- **EndNote X9 / EndNote Web:** (desktop and web application), fee-based, for university members there is a discounted license via <https://asknet.unibas.ch> (CHF 10 / year)

→ Free for Swiss TPH members

- **Zotero:** (Browser-Add-on) → free on the internet

- **Mendeley** (desktop and web application)

→ free on the internet [also a social network for scientists]

- **Citavi:** (Desktop application) (only for windows!)

→ for university members free license for unrestricted use

→ **Important: Swiss TPH supports only Endnote**



# PubMed: My NCBI

## Saved Searches

- Reproduce search
- **Set Alerts:** Receive search updates (new hits) by mail

## My NCBI

**Search NCBI databases**

Search: PubMed

Hint: clicking the "Search" button without any terms listed in the search box will transport you to that database's homepage.

**My Bibliography**

Your bibliography contains no items.

[Manage My Bibliography >](#)

**Recent Activity**

Time	Database	Type	Term
05:04 AM	PubMed	search	<a href="#">(Depressive Disorder[Title/Abstract...</a>
04:55 AM	MeSH	record	<a href="#">adverse effects [Subheading]</a>
04:55 AM	MeSH	search	<a href="#">adverse effects</a>
04:46 AM	PubMed	search	<a href="#">("Hypericum/therapeutic use"[Mesh]...</a>
04:46 AM	PubMed	search	<a href="#">"Hypericum/therapeutic use"[Mesh]</a>
04:45 AM	MeSH	record	<a href="#">Hypericum</a>
04:45 AM	MeSH	search	<a href="#">hypericum</a>

**Saved Searches**

Search Name	What's New	Last Searched
<b>PubMed Searches</b>		
<a href="#">Botox bei Zoster (4Tr)</a>	<input type="checkbox"/>	4 months ago
<a href="#">Neuralgia and Botox</a>	<input type="checkbox"/>	4 months ago
<a href="#">("Premature Birth"[Mesh]) AND (("Adolescent"[M...</a>	<input type="checkbox"/>	5 months ago
<a href="#">(((Preterm*[Text Word] OR Premature*[Text Word]...</a>	<input type="checkbox"/>	5 months ago

[Manage Saved Searches >](#)

**Collections**

Collection Name	Items	Settings/Sharing	Type
<a href="#">Favorites</a>	<a href="#">edit</a> 0	<input type="checkbox"/> Private	Standard
<a href="#">My Bibliography</a>	<a href="#">edit</a> 0	<input type="checkbox"/> Private	Standard
<a href="#">Other Citations</a>	<a href="#">edit</a> 0		
<a href="#">atrial fibrillation</a>	<a href="#">edit</a> 2		

**Filters**

Filters for: PubMed

## NCBI Site Preferences

- Own search filters
- **Highlighting:** Search terms are highlighted in the hit list (Legacy PubMed)

**My NCBI » Preferences**

**Highlighting preference saved!**

**Note:** Your account password, email address, and hyperlinked username at the top right of NCBI w

**Common Preferences**

Username	mwe111
<a href="#">Links Display</a>	Popup Menu
<a href="#">Highlighting</a>	<b>Lime Green</b>
<a href="#">Auto Suggest</a>	On