

Abteilung für Epidemiologie im Kindes- und Jugendalter am Institut für Soziale Pädiatrie und Jugendmedizin

Dr. Veit Grote, MSc

Literature search, retrival and management

(some slides by Dr. K. Schmidt, IBE)



Overview



- Access to databases and medical literature
- Literature databases
- Search strategies
- Reference to manuscript: How to get the paper
- Organising references: What a reference manager is good for!
- Links

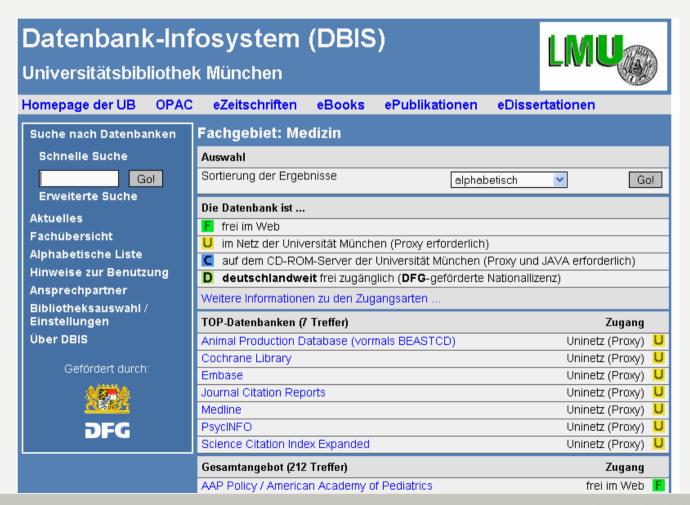




Access to datbases - LMU



http://www.ub.uni-muenchen.de/emedien/datenbanken/ → Datenbanken Infosystem





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Access to databases - BSB



http://www.bsb-muenchen.de/Externe_Nutzung_von_elektronis.196.0.html

Scholarly or Professional Use

Such individuals or legal entities that use the library for scholarly purposes, professional work or further education can obtain authorisation for home lending. The following requirements have to be fulfilled:

- . You need to be at least 18 years old
- · you have to be a resident of the Federal Republic of Germany and submit corresponding proof (i.e. a valid ID card or passport together with a confirmation of registration as resident by your local authority, a so-called "Meldebescheinigung").

Registration for Databases with German-wide Access

Provided that you have a permanent place of residence in the Federal Republic of Germany, you can register yourself online and thus obtain access to (currently over 70) databases, for which national licenses were acquired with the financial support of the German Research Foundation (DFG).

For further information on the procedure please refer to the entry for the individual database in the Database Information System:

- Just of all databases accessible free of charge throughout Germany
- ⇒ Registration

External Use of Electronic Media

- □ Databases with German-wide Access
- □ Pav-per-Use

External access to licensed electronic media (databases and electronic journals) is granted on the condition that the user has a reader pass of the Bayerische Staatsbibliothek. The reader pass can only be obtained in person at the BSB (+ Registration).

The following further conditions must be fulfilled:

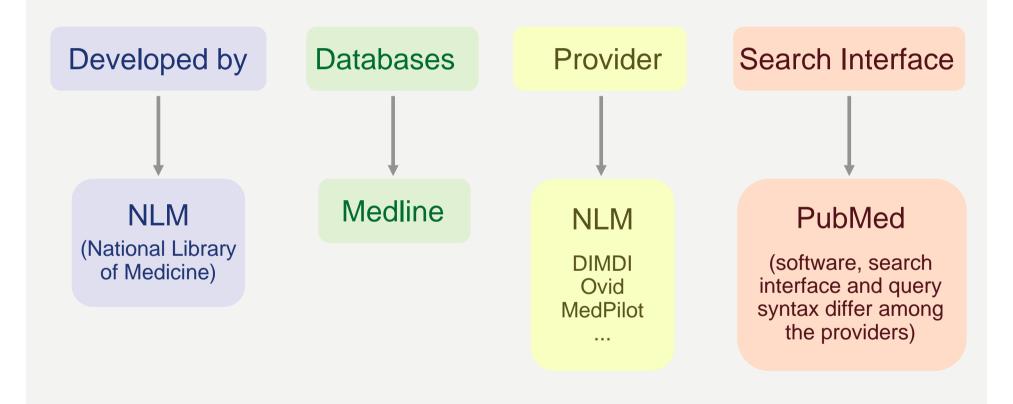
- · For legal licensing reasons, only authorised individuals are granted external access (but not institutions).
- · Such users are authorized who hold a valid reader pass of the Bayerische Staatsbibliothek and have a place of residence in the Federal Republic of Germany, Concerning a part of the services, external access is limited to those users who live in Munich or in the greater Munich area (area of the Munich S-Bahn commuter railway system).



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Database and search interface



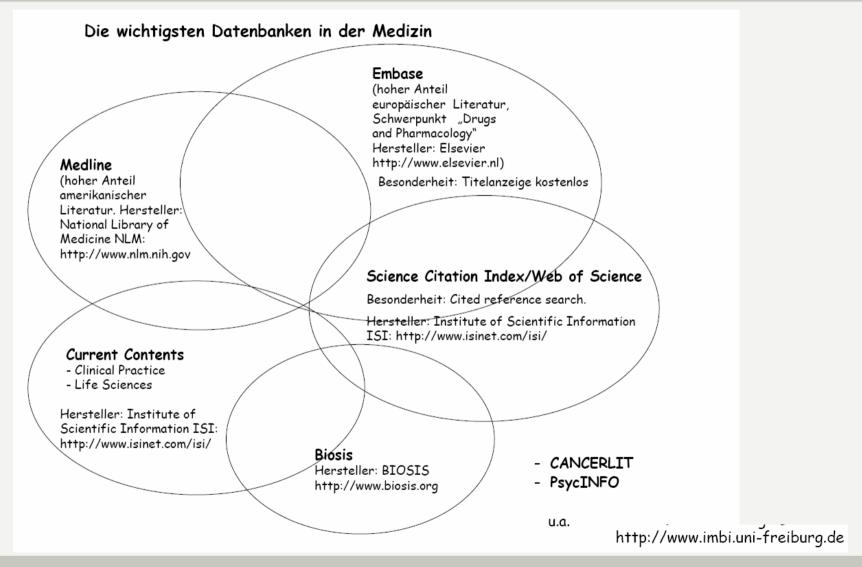


Ovid: http://www.ovid.com MedPilot: http://www.medpilot.de



Most important databases



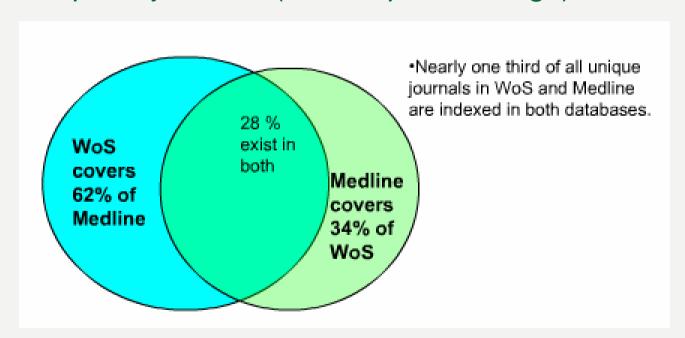






Databases complement:

- No database covers all material
- scope of journals (books, proceedings) varies







Databases complement:

- No database covers all material
- scope of journals (books, proceedings) varies
- time of articles introduction into database varies
- quality varies (?)
- Scope of indexing/assigning keywords varies
 Retrieval systems:
- OVID/Embase might have another coverage (timeliness) than embase.com od scope.com;
- information is not always transferred one-to-one from providers to databases to retrival systems



Medline



- MEDLINE (Medical Literature Analysis and Retrieval System Online) is a online bibliographic database to medicine, nursing, health services, etc. 1949 till present contains bibliographic records of journal articles (citations)
- indexes approximately 5200 current biomedical journals published in the United States and 80 other countries
- For citations added during 2000-2005: about 47% are for cited articles published in the U.S., about 90% are published in English, and about 79% have English abstracts written by authors of the articles.
- produced by the National Library of Medicine, daily updated (except Nov/Dec) and free via:



http://www.ncbi.nlm.nih.gov/sites/entrez



EMBASE (Excerpta Medica)



- Produced by a publisher (Elsevier)
- Focused on non-North American material; 75% of articles are from journals published in Europe and the Asia-Pacific region.
- An alternative to Medline/PubMed; about 40% of the journals indexed in EMBASE are not indexed in Medline.
- Very current; articles appear within 10 days of being sent to the database. Comprehensive in
 - pharmaceutical literature,
 - health policy and management,
 - public health,
 - · occupational health,
 - environmental health,
 - drug dependence and abuse,
 - psychiatry,
 - · forensic medicine, and
 - biomedical engineering/instrumentation.
- Contains over 19 million records from 1974 to present, describing articles from about 7000 journals



ISI Web of Knowledge - Web of science



- Web of Science® consists of seven databases containing information gathered from thousands of scholarly journals, books, book series, reports, and more. Most important for us:
 - Science Citation Index Expanded Coverage
 - Currently over 6650 journals; covers articles since 1900 but incl. full information only since 1991
 - Conference Proceedings Citation Indexes Coverage
 - Since 1990



BIOSIS



BIOSIS Previews

BIOSIS Previews is the online version of two major print resources; *Biological Abstracts (BA)*, which concentrates on journals and *Biological Abstracts/RRM* (Reports, Reviews, Meetings), the companion printed reference to books, meetings and research reviews.

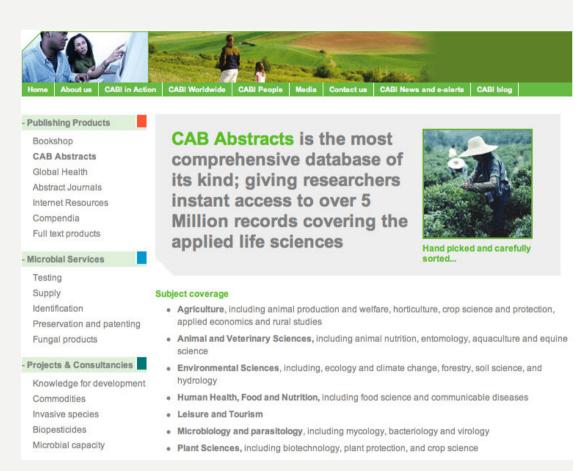
- it provides over 16 million records from over 5,500 journals,
 1,500 international meetings, CDs, conference proceedings,
 reports and US patents
- it is updated weekly and is available from 1969 onwards
- subject coverage includes traditional biological sciences such as zoology and microbiology and related multidisciplinary fields such as pharmacology, biophysics, bioengineering, and experimental clinical medicine
- journals comprise 60 per cent of the contents of the database, with references to meetings representing 33 per cent, and reviews and reports seven per cent



CAB Abstracts



- Subject Coverage: agriculture, veterinary medicine, nutrition and forestry science
- Sources include approx.14000 internat. journals, books, conference proceedings, and patents.



http://www.cabi.org/cababstracts



Cochrane Collaboration



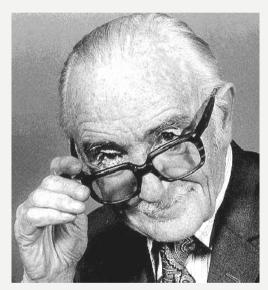
Started up in 1993 in response to Archie Cochrane's call for up-to-date, systematic reviews of all relevant randomized controlled trials of health care.

The most prominent component of the library is the database of systematic reviews.

14 Cochrane Centers world-wide

Cochrane reviews have become known internationally as sources of high quality, reliable health information

www.cochrane.org



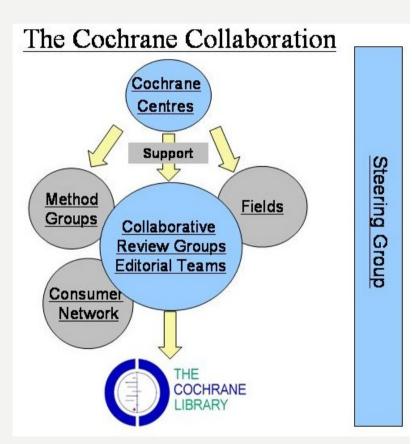
Prof. Archibald Leman Cochrane (1909 - 1988)



Cochrane organization



- Cochrane Review Groups, each of which concentrates on a specific healthcare area.
- Fields that draw together healthcare issues impacting on many review groups.
- Consumer Network, that represents the interests of healthcare consumers.
- Methods Groups develop methodological techniques.
- Centres with geographic and linguistic responsibilities.
- Steering Group, which provides the policyand decision-making body of the Collaboration.





The Cochrane Library



... is a collection of 8 Evidence-Based Medicine databases:

- Clinicians and consumers may be most interested in these databases:
 - The Cochrane Database of Systemic Reviews (Cochrane Reviews)
 - The Database of Abstracts of Reviews of Effects (DARE)
 - The Cochrane Central Register of Controlled Trials (CENTRAL)
- These databases contain information of particular interest to researchers and policy-makers:
 - The Cochrane Database of Methodology Reviews (Methodology Reviews)
 - The Cochrane Methodology Register (Methodology Register)
 - Health Technology Assessment Database (HTA)
 - NHS Economic Evaluation Database (NHS EED)



Defining the components of the search question



Each search question has four components remembered best by the mnemonic-PICO:

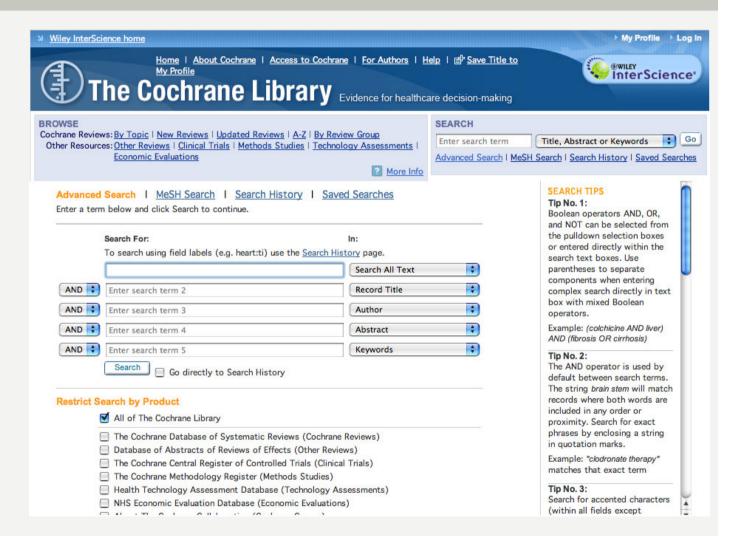
- Patient (P) What is the patient group of interest e.g. acute cholecystitis ?
- 2. Intervention (I) What is the intervention of interest e.g. expectant management ?
- 3. Comparison (C) What is the comparison intervention of interest e.g. surgery ?
- 4. Outcome (O) What is the primary outcome e.g. survival?



www.thecochranelibrary.com



Basic Search



... in all databases

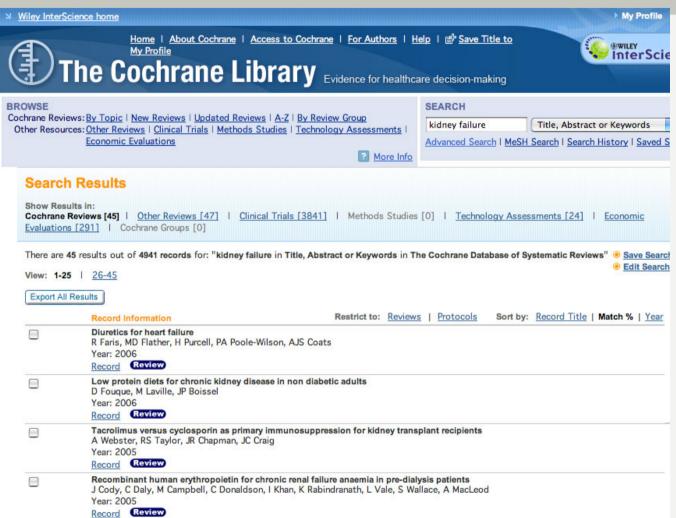


www.thecochranelibrary.com



List of results

... from the Cochrane Reviews





Scopus



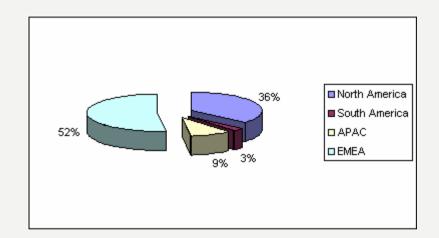
Scopus in Detail: What does it cover?

Scopus is the largest abstract and citation database. It covers:

- Over 16,000 peer-reviewed journals from more than 4,000 international publishers, including coverage of:
 - · Over 1200 Open Access journals
 - 520 Conference Proceedings
 - 650 Trade Publications
 - 315 book series
- . 36 million records, of which:
 - 18 million records include references going back to 1996 (75% include references)
 - 18 million pre-1996 records go back as far as 1823

Subject areas covered

- Life Sciences >3,400 titles
- Health Sciences > 5,300 titles (including 100% coverage of Medline titles)
- Physical Sciences > 5,500 titles
- Social Sciences > 2,850 titles



A: Elsevier has approached the publisher of each journal to request whether we can source and index the abstract and references for each article. In most cases, Elsevier holds a subscription to the journal and publishers are aware that Elsevier is covering their titles. This is an Elsevier, rather than a multi-publisher initiative.

Q: Does Scopus offer indexing and is it professional indexing?

A: Yes, which gives Scopus a major advantage over other all-science databases. The large majority (85%) of the records contain professional index terms in addition to author keywords, offering a sophisticated means to locate and retrieve relevant information.



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Deutsches Institut für Medizinische Dokumentation und Information (DIMDI)







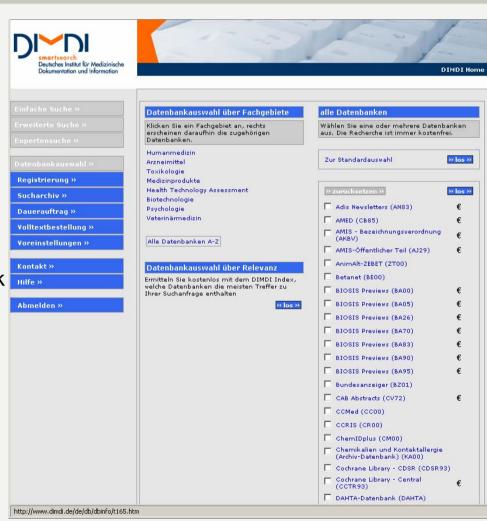
Literature databases in DIMDI



One of the free databases:

CCMed (Current Contents Medizin)
Literature German journals since 2000;
about 900 journals indexed in German
central library (Deutschen Zentralbibliothek
für Medizin; ZB MED).

Pecularities in DIMDI: German original title searchable in German; good support for German – English translations





Helen Kalies - career plan



So – give it a try:

How many manuscripts were published in journals by Helen Kalies?

PubMed: → 12 references

EMBASE: → 2 additional references (+ all PubMed)

CCMed: → 8 additional references

WOS: → 1 additional references (+ EMBASE/PUBMED-1 + 4

conference abstracts)

Ärzteblatt: → 1 additional references

TOTAL: → 24 manuscripts



Search strategy



Dependent on:

- Subject (very specific, rare disease, etc.)
- Purpose (you need all; most important)
- Time scope (last ten years or even those in 1940)
- Broadness (include books, proceedings etc)
- Database used



Increase of sensitivity



.... increases the retrieval of relevant documents

- 1. extend the query
- 2. extend keywords
- 3. use new combinations of keywords
- 4. use wildcard (*)
- 5. use Boolean operator: OR
- 6. use in Thesaurus "all subheadings"
- 7. extend the timescale



Increase of specificity



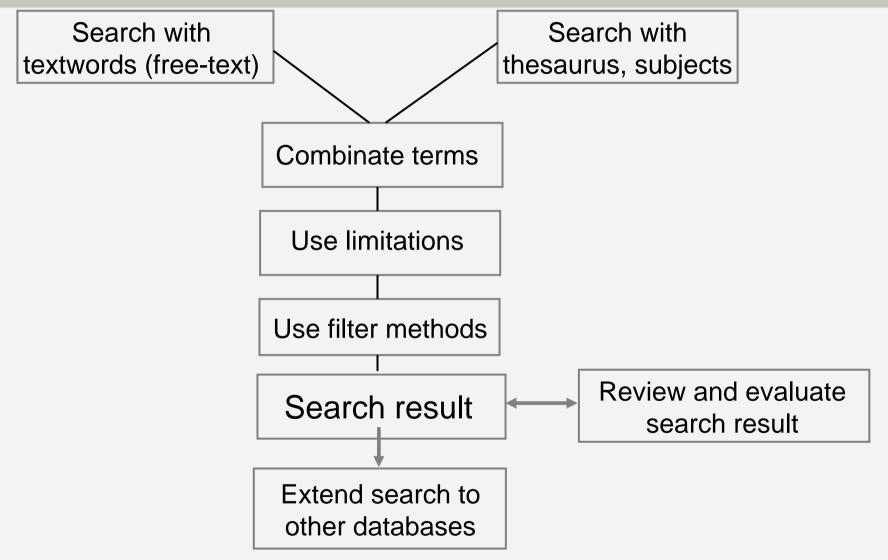
... decreases the retrieval of non-relevant documents

- 1. focus the query
- 2. narrow down search with more specific keywords
- use thesaurus and subheadings (MeSH)
- 4. use Boolean operator: AND
- 5. use limitations: language, geographic region, publication category, human/animal, timescale



Search procedure







Boolean operators



Boolean operator	Example	Description
AND	jaundice AND fruits	Does not retrieve articles that have either <i>jaundice</i> or <i>fruits</i> but not both. Narrows down search.
OR	jaundice <i>OR</i> fruits	Retrieves all documents that have either <i>jaundice</i> or <i>fruits</i> or both of the terms in them. Widens search.
NOT	jaundice NOT fruits	Retrieves all documents that contain the word <i>jaundice</i> , but not the word <i>fruits</i> .
wildcard: * (\$ bei Ovid)	fruit*, fruit\$	Retrieves all documents that contain words like <i>fruity</i> , <i>fruits</i> etc. in addition to all documents that contain the word <i>fruit</i> .



Basic PubMed search features



Boolean logic represents relationships between search terms: AND, OR and NOT - note to use capitals and brackets:

e.g. (venous thrombosis OR phlebothrombosis) AND heparin

Wildcard: *

e.g. pregnan* retrieves pregnant as well as pregnancy child* retrieves child and children, childcare etc.

Phrases should be put in quotation marks

e.g. growth curves search for growth AND curves, "growth curves" search only for growth curves

Timescale e.g. 1990:2000

The **Limits** feature allows the user to narrow the search.



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Search Field Descriptions and Tags – Medline/PubMed



Affiliation [AD]

All Fields [ALL]

Author [AU]

Comment Corrections

Corporate Author [CN]

EC/RN Number [RN]

Entrez Date [EDAT]

Filter [FILTER]

First Author Name [1AU]

Full Author Name [FAU]

Full Investigator Name [FIR]

Grant Number [GR]

Investigator [IR]

Issue [IP]

Journal Title [TA]

Language [LA]

Last Author [LASTAU]

MeSH Date [MHDA]

MeSH Major Topic [MAJR]

MeSH Subheadings [SH]

MeSH Terms [MH]

NLM Unique ID [JID]

Other Term [OT]

Owner

Pagination [PG]

Personal Name as Subject [PS]

Pharmacological Action MeSH Terms

[PA]

Place of Publication [PL]

Publication Date [DP]

Publication Type [PT]

Publisher Identifier [AID]

Secondary Source ID [SI]

Subset [SB]

Substance Name [NM]

Text Words [TW]

Title [TI]

Title/Abstract [TIAB]

Transliterated Title [TT]

UID [PMID]

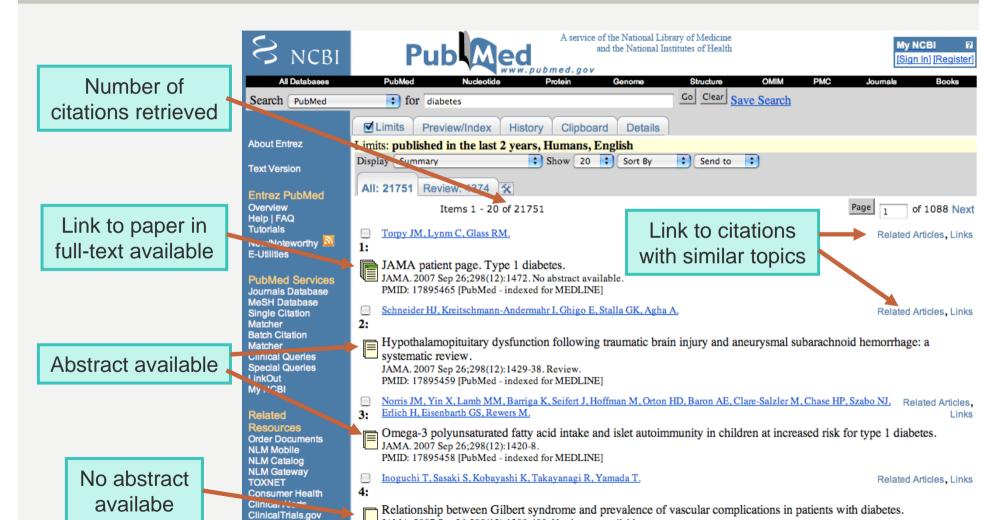
Volume [VI]



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Search results





JAMA. 2007 Sep 26;298(12):1398-400. No abstract available.

PMID: 17895455 [PubMed - indexed for MEDLINE]

PubMed Central

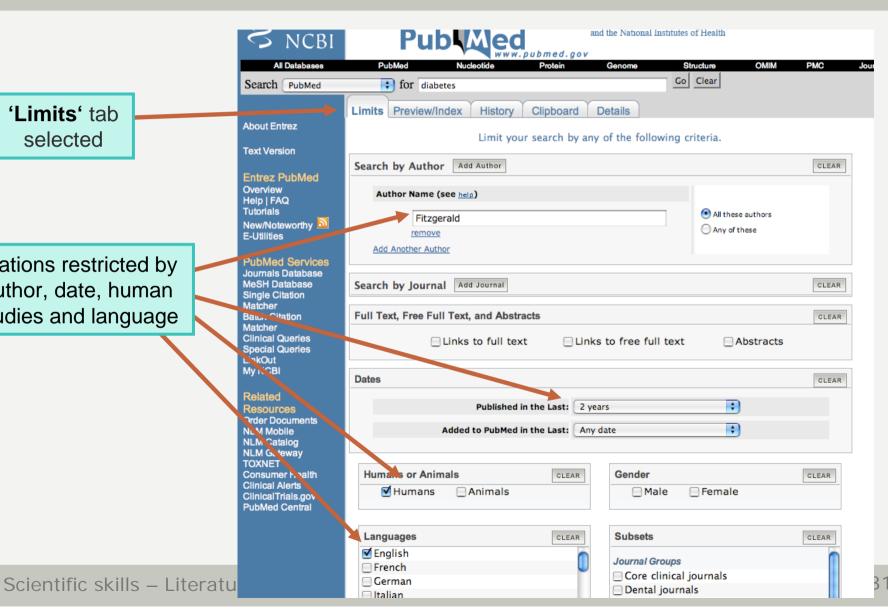


Refinement of the search



'Limits' tab selected

citations restricted by author, date, human studies and language





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Refinement of the search







MeSH Medical Subject Headings



MeSH is the most significant thesaurus in biomedicine, built by the American National Library of Medicine (NLM).

It is translated into many languages, also in German.

MeSH has a tree structure, which determines the level of superiority/inferiority to individual descriptors and establishes hierarchic relationships between conceptually related terms.

Descriptors from the MeSH thesaurus are used to index the different databases: e.g. MEDLINE

Access to MeSH-Browser: http://www.nlm.nih.gov/mesh



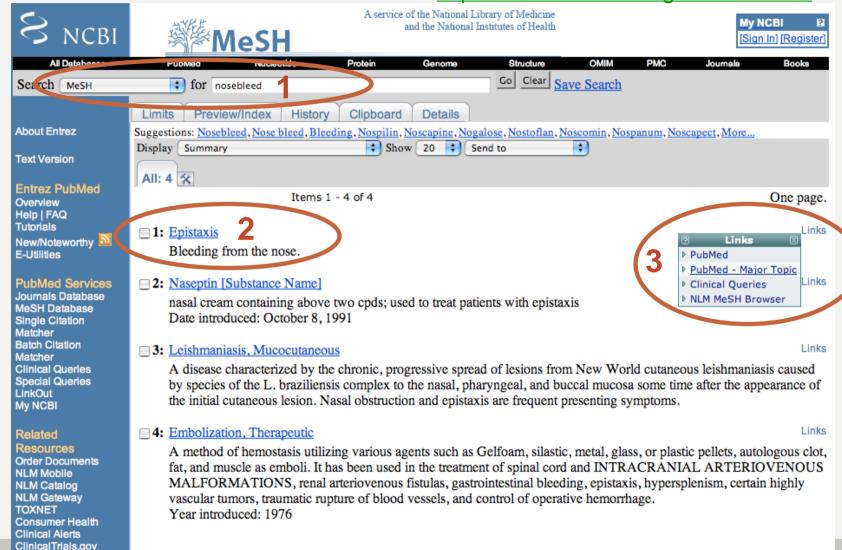
Scie PubMed Central

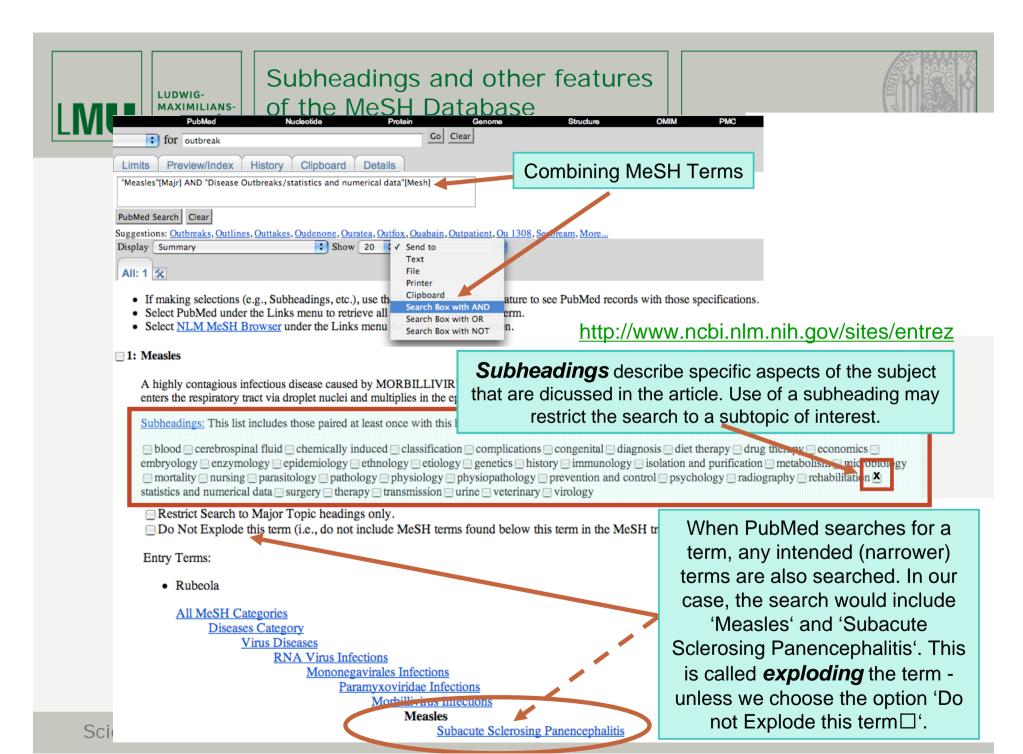
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Searching with the MeSH Database



http://www.ncbi.nlm.nih.gov/sites/entrez







Mapping tree of Mesh terms



Entry Terms:

Osteomyelitides

All MeSH Categories

Diseases Category

Bacterial Infections and Mycoses

Infection

Bone Diseases, Infectious

Osteomyelitis

All MeSH Categories

Diseases Category

Musculoskeletal Diseases

Bone Diseases

Bone Diseases, Infectious

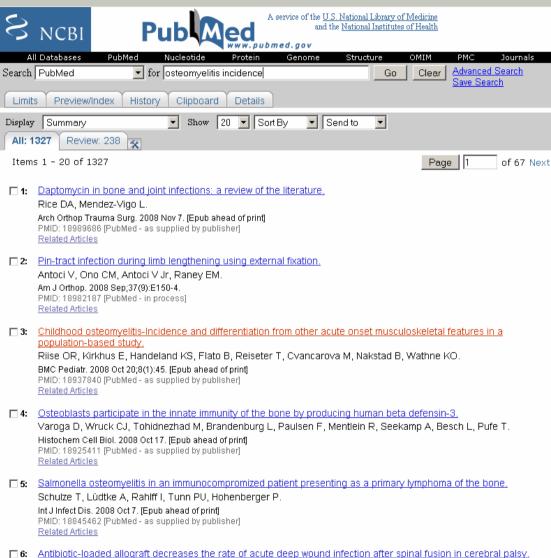
Osteomyelitis



Unrestricted search



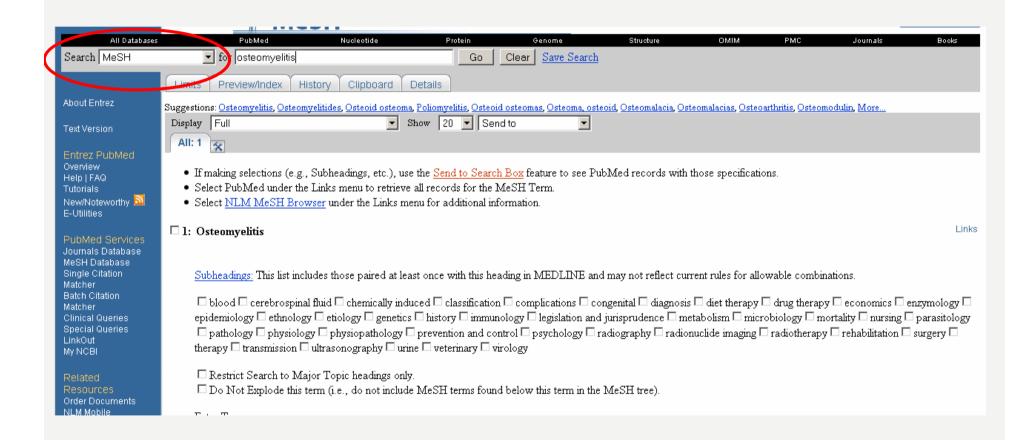
Well, you have to browse a lot of literature!





Keyword finder





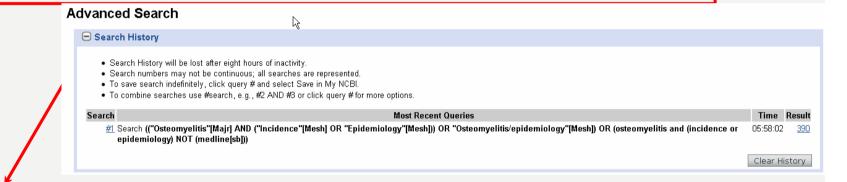




(("Osteomyelitis"[Majr] AND ("Incidence"[Mesh] OR "Epidemiology"[Mesh]))

OR "Osteomyelitis/epidemiology"[Mesh])

OR ((osteomyelitis and (incidence or epidemiology)) NOT (medline[sb]))



Included free text search because some references do not have keywords; i.e. reference is provided by publisher (or is otherwise special). Normally most recent papers!





Remember:

Keywords are not included for the most recent paper, as this needs extra work!

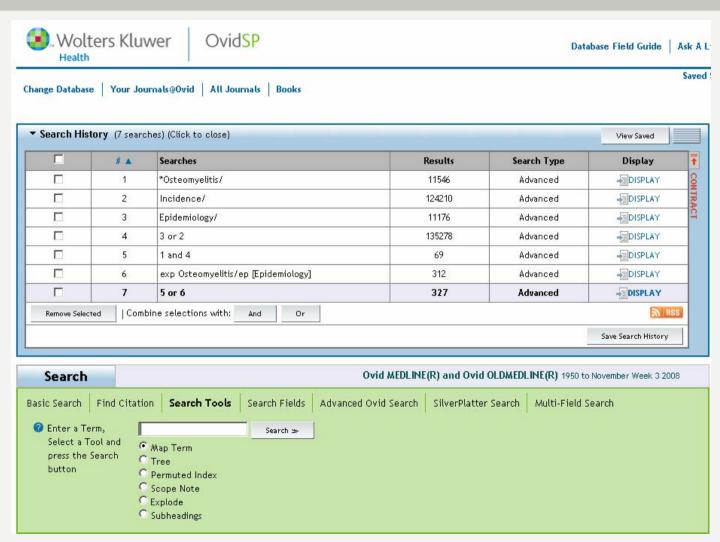
OR (osteomyelitis and (incidence or epidemiology) NOT medline[sb])

This search applies the free text search only for those references that have prelimary pubmed status and are not indexed!



Search in Medline via Ovid

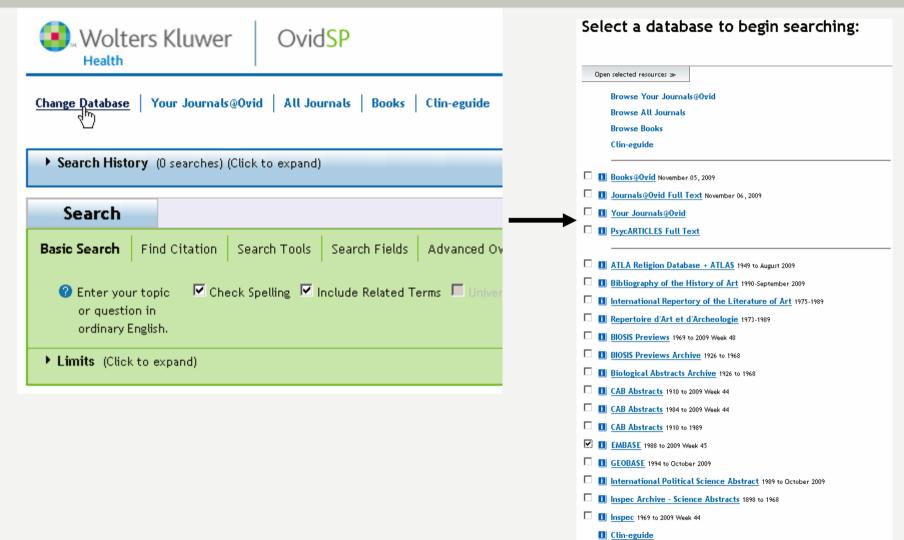






Search in EMBASE and Medline



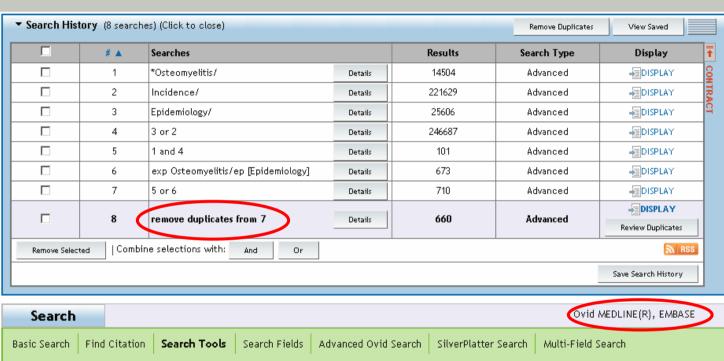


✓ III Ovid MEDLINE(R) 1950 to October Week 5 2009



Search in EMBASE and Medline



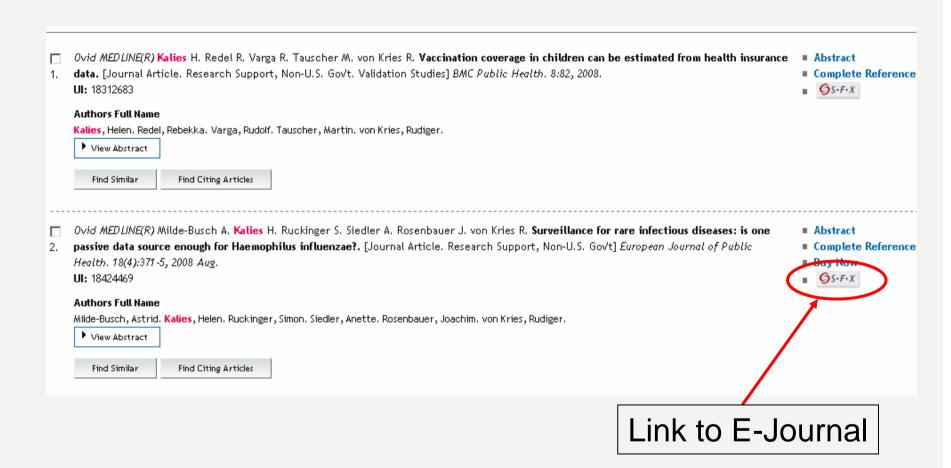






Access to E-Journal

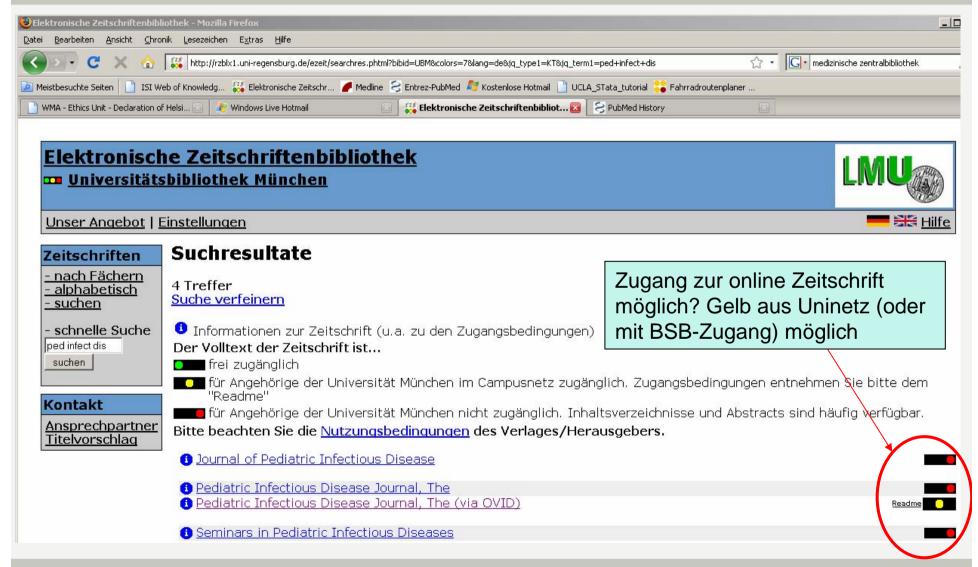






Literaturzugang (LMU/BSB)







Subito





Wie wird im ab dem 1.1.2008 im subito-Dienst geliefert? (Stand: 04.02.2008 Alle Angaben ohne Gewähr)

Bei Lieferungen von Deutschland und nach Deutschland finden die Paragraphen 53 und 53a des neuen Urheberrechtsgesetzes

Allwelldulig						
Von Deutschland	NG 1A: Studenten	NG 1B: Mitarbeiter an	NG 1C: öffentlich	NG 2: Kommerzielle	NG 3: Privatpersonen	NG 4: Library Service
nach Deutschland		Hochschulen und	finanzierte	Kunden		
nach Österreich		Forschungsinstituten	Einrichtungen			
in die Schweiz						Preise inkl. Tantieme
nach Liechtenstein	Preise inkl. Tantieme an	Preise inkl. Tantieme an	Preise inkl. Tantieme	Preise inkl. Tantieme	Preise inkl. Tantieme an	an die VG Wort
	die VG Wort in Höhe von	die VG Wort in Höhe von	an die VG Wort in Höhe	an die VG Wort in Höhe	die VG Wort in Höhe	
	1,00 EUR	1,00 EUR	von 1,00 EUR	von 6,00 EUR	von 3,00 EUR	
Post				Festlegung durch		
	6,50 EUR	6,50 EUR	6,50 EUR	Bibliothek, siehe	9,50 EUR	6,50 EUR
				Homepage "Preise"		
Fax				Festlegung durch		
	6,50 EUR	6,50 EUR	6,50 EUR	Bibliothek, siehe	9,50 EUR	6,50 EUR
				Homepage "Preise"		
Email	nein	nein	nein	nein	nein	nein

Die Lieferung einer Grafik-Datei (PDF-Datei) ist nur noch dann zulässig, wenn der Verlag **keinen** Onlinezugang zu diesem Artikel anbietet.



Links



PubMed: http://www.ncbi.nlm.nih.gov/sites/entrez

DIMDI: http://www.dimdi.de

EMBASE: http://www.embase.com

Cochrane Collaboration: http://www.cochrane.org

Cochrane Library: http://www.thecochranelibrary.com

Centre for Evidence-Based Medicine: http://www.cebm.net

Isi Web of Knowledge (Thomson Scientific): http://isiwebofknowledge.com

Springer Datenbank: http://www.springerlink.com

Ovid: http://www.ovid.com

MedPilot: http://www.medpilot.de

OnVista Group: http://www.onmeda.de

Roche Lexikon: http://www.gesundheit.de/roche

CancerNet: http://cancerweb.ncl.ac.uk/cancernet.html

Geneva Foundation for Medical Education and Research:

http://www.gfmer.ch/Medical_journals/Free_medical.php

Scientific Information:http://www.scirus.com

MedScape: http://www.medscape.com

MedKnowledge: http://www.medknowledge.de

CAB Abstracts: http://www.cabi.org/cababstracts