



# MEDLINE and Embase

characteristics, search strategies, and advanced search options

## Swiss Biomedical Librarians

Basel, September 10th 2015

**Dieuwke Brand**  
**Wolters Kluwer**  
The Netherlands



Wolters Kluwer  
Health

# Agenda, part 1

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1. Information about MEDLINE and Embase
2. Status of MEDLINE records
3. Embase and its MEDLINE supplement
4. Evidence-based medicine
5. Structured searching
6. A search in MEDLINE

# MEDLINE: MEDLARS online

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**MEDLARS:**

**MEDical Literature Analysis and Retrieval System**

The MEDLARS database could only be searched by a mainframe computer

Online **interactive** searching was not yet possible

**Since 1974 (1973?) MEDLINE!**

**Online interactive searching**

# MEDLINE

## MEDLINE “pure” (records with controlled terms)

Scope:	Medicine (in a broad sense)
Producer:	National Library of Medicine (U.S.A.)
Content:	Descriptions of journal articles (records) <b>with controlled terms</b>
Period:	1946 (1902) - now
Journals:	> 5,600 journals
Total:	> 22 million records
Increase:	> 800,000 records/year
Languages:	91% English      0.1% Norwegian      0.2% Dutch 1.2% German      1.7% Chinese ( <b>languages: 2000-current</b> )

# MEDLINE on Ovid

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- Records with controlled terms
  - . MEDLINE
- Records that do not (yet) have controlled terms
  - CTs will be added
    - . In-Data-Review
    - . In-Process
  - CTs will never be added
    - . PubMed-not-MEDLINE
- Records with/without “old” controlled terms
  - . OLDMEDLINE

# MEDLINE on Ovid

- Records with controlled terms
  - . MEDLINE [PubMed - indexed for MEDLINE]
- Records that do not (yet) have controlled terms
  - CTs will be added
    - . In-Data-Review [PubMed - in process]
    - . In-Process [PubMed - in process]
  - CTs will never be added
    - . PubMed-not-MEDLINE [PubMed]
- Records with/without “old” controlled terms
  - . OLDMEDLINE [PubMed - OLDMEDLINE]

PubMed's [PubMed - as supplied by publisher]  
is not available in MEDLINE on Ovid

# MEDLINE record

## **Cytochrome P450-derived versus mitochondrial oxidant stress in acetaminophen hepatotoxicity.**

Jaeschke H; McGill MR.

*Toxicology Letters.* 235(3):216-7, 2015 Jun 15.

**UI:** 25858113

### **Status**

MEDLINE

### **MeSH Heading**

\*Acetaminophen/to [Toxicity]. \*Drug-Induced Liver Injury/et [Etiology]. \*Electron Transport Chain Complex Proteins/me [Metabolism]. \*Hepatocytes/de [Drug Effects]. Humans. \*Mitochondria, Liver/de [Drug Effects]. \*Oxidative Stress/de [Drug Effects]. \*Reactive Oxygen Species/me [Metabolism].

### **Keyword Heading**

Acetaminophen HepG2 cells  
Hepatotoxicity  
Mitochondria  
Oxidant stress  
Protein adducts.

In recent records, Keyword Headings are authors keywords

# The oldest MEDLINE record

- The surgical treatment of sterility due to obstruction at the epididymis; together with a study of the morphology of human spermatozoa.

Martin E; Carnett JB; Levi JV; Pennington ME.

*University of Pennsylvania Medical Bulletin.* 15(1):2-15 1902 Mar.

UI: 12255534

## Status

MEDLINE

## MeSH Heading

\*Animals, Laboratory. Biology. \*Clinical Laboratory Techniques. Diagnosis. \*Epididymis. Genitalia. Genitalia, Male. Germ Cells. \*Infertility. Physiology. Reproduction. Research. \*Semen. Seminal Vesicles. \*Spermatozoa. Testis. Urogenital System.

## Keyword Heading

\*Animals, Laboratory Biology  
Clinical Research  
\*Epididymis

---

## Entry Date

19800103



# PubMed-not-MEDLINE record

## Exoplanet orbital eccentricity: multiplicity relation and the Solar System.

Limbach MA; Turner EL.

*Proceedings of the National Academy of Sciences of the United States of America.* 112(1):20-4, 2015 Jan 6.

UI: 25512527

### Status

PubMed-not-MEDLINE

### Keyword Heading

Solar System dynamical evolution  
orbital eccentricities  
radial velocity.

## The genetics of folate metabolism and maternal risk of birth of a child with Down syndrome and associated congenital heart defects. [Review]

Coppede F.

*Frontiers in Genetics.* 6:223, 2015.

UI: 26161087

### Status

PubMed-not-MEDLINE

### Keyword Heading

DNA methylation Down syndrome  
MTHFR  
congenital heart defects  
epigenetics  
folate  
folic acid supplementation  
polymorphisms.

## An account of a peculiar Disease of the Heart.

Dundas D.

*Medicochirurgical Transactions.* 1:37-46, 1809.

UI: 20895121

### Status

PubMed-not-MEDLINE

# OLDMEDLINE record

## SEROLOGICAL TESTS IN DIAGNOSIS OF PRIMARY BILIARY CIRRHOSIS.

WALKER JG; DONIACH D; ROITT IM; SHERLOCK S.

*Lancet.* 1(7390):827-31, 1965 Apr 17.

UI: 14263538

### Status

OLDMEDLINE

### MeSH Heading

\*Anemia, Pernicious. \*Colitis, Ulcerative. \*Complement Fixation Tests. \*Diagnosis, Differential. \*Drug-Induced Liver Injury. \*Fluorescent Antibody Technique. \*Hepatitis A. \*Kidney. \*Latex Fixation Tests. \*Liver. \*Liver Cirrhosis, Biliary. \*Stomach. \*Thyroid Gland. \*Thyroiditis.

### Keyword Heading

\*ANEMIA, PERNICIOUS \*COLITIS, ULCERATIVE  
\*COMPLEMENT FIXATION TESTS  
\*DIAGNOSIS, DIFFERENTIAL  
\*FLUORESCENT ANTIBODY TECHNIC  
\*HEPATITIS, INFECTIOUS  
\*HEPATITIS, TOXIC  
\*HOMOGENATES  
\*KIDNEY  
\*LATEX FIXATION TESTS  
\*LIVER  
\*LIVER CIRRHOSIS, OBSTRUCTIVE  
\*STOMACH  
\*THYROID GLAND  
\*THYROIDITIS.

## Keyword Headings in OLDMEDLINE:

- old “subject headings”
- uppercase
- all Major/Focus (with an \*)
- translated into MeSH Headings

# Former OLDMEDLINE record

## TESTOSTERONE alone and with estrogen for the treatment of tension and anxiety.

Anonymous.

*Whats New*. 165:1-2, 1952 Feb.

UI: 24541818

### Status

MEDLINE

### Journal Subset

OLDMEDLINE Citations

### MeSH Heading

\*Androgens/tu [Therapeutic Use]. \*Climacteric/co [Complications]. \*Estrogens/tu [Therapeutic Use].

\*Female/co [Complications].

### Keyword Heading

\*ANDROGENS/therapeutic use \*CLIMACTERIC, FEMALE/complications

\*ESTROGENS/therapeutic use.

See MEDLINE Database Guide  
Field: Journal Subset

OM citations from the [OLDMEDLINE](#) project that originated from the *Cumulated Index Medicus* and the *Current List of Medical Literature* (in 2008 this includes citations from the 1949-1965 print indexes). The ways they differ from other MEDLINE records are documented under the applicable element descriptions. The original MeSH Headings assigned at the time the citation was created in print reside in the [Other Term](#) field. Records in the OLDMEDLINE subset have a status of OLDMEDLINE until *all* of their original subject terms are mapped to current MeSH; then their status changes to MEDLINE. NLM makes available both new and revised OLDMEDLINE records on an irregular and infrequent basis.

# Status in MEDLINE/Ovid

[Basic Search](#) | [Find Citation](#) | [Search Tools](#) | **[Search Fields](#)** | [Advanced Search](#) | [Multi-Field Search](#)

*si*: Secondary Source ID

*sl*: Secondary Source Link

*sm*: Space Flight Mission

*st*: Status



*hw*: Subject Heading Word

*tw*: Text Word

*ti*: Title

*ui*: Unique Identifier

*up*: Update Date

in data review.st.  
Postings: 150335

medline.st.  
Postings: 22221090

pubmed not medline.st.  
Postings: 1448274

in process.st.  
Postings: 516865

oldmedline.st.  
Postings: 265021

Status Tag	How to Search	Citation Status
PubMed - as supplied by publisher	publisher[sb] NOT pubstatusnihms NOT pubstatuspmcsd NOT pmcbook	Citations recently added to PubMed via electronic submission from a publisher, and are <u>soon to proceed to the next stage, PubMed - in process (see below)</u> . This tag is also on citations received before late 2003 if they are from journals not indexed for MEDLINE, or from a journal that was accepted for MEDLINE after the citations' publication date. These citations bibliographic data have not been reviewed.
PubMed - in process	inprocess[sb]	Citations bibliographic data will be reviewed and indexed, i.e., MeSH terms will be assigned (if the subject of the article is within the scope of MEDLINE).
PubMed - indexed for MEDLINE	medline[sb]	Citations that have been indexed with MeSH terms, Publication Types, Substance Names, etc. and bibliographic data have been reviewed.
PubMed	pubstatusnihms AND publisher[sb]	Author manuscripts submitted to PMC that fall under the <a href="#">NIH Public Access</a> Policy.
PubMed	pubstatuspmcsd AND publisher[sb]	Records for selective deposit articles in PMC. These are articles published in non-MEDLINE journals where the publisher has chosen to

## NLM-Page about status in PubMed

[http://www.ncbi.nlm.nih.gov/books/NBK3827/table/pubmedhelp.T.status\\_subsets/](http://www.ncbi.nlm.nih.gov/books/NBK3827/table/pubmedhelp.T.status_subsets/)

PubMed	pubmednotmedline[sb]	Citations that have been reviewed for accurate bibliographic data but will not receive MEDLINE indexing, because they are for articles in non-MEDLINE journals, or they are for articles in MEDLINE journals but the articles are out of scope or they are from issues published prior to the date the journal was selected for indexing, or citations to articles from journals that deposit their full text articles in PMC but have not yet been recommended for indexing in MEDLINE.
PubMed - OLDMEDLINE	oldmedline[sb]	This tag identifies citations in the <a href="#">OLDMEDLINE</a> subset.



# Embase: Excerpta Medica Database

## Embase “pure” (without MEDLINE supplement)

Scope: Medicine (in a broad sense)

Producer: Elsevier (Amsterdam)

Content: Descriptions of journal articles (records) with controlled terms

Period: 1974 (1908) - now

Journals: > 5,000 journals

Total: > 19 million records

Increase: > 1 million records/year

Languages: 92.4% English      0.03% Norwegian      0.3% Dutch  
1.9% German      1.4% Chinese      (languages: 2000-current)

# Embase: Excerpta Medica Database

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Embase from 1974

Embase Classic 1947-1973

Since 2010: MEDLINE supplement is added

**to all Embase versions!**

Embase/Ovid, Embase/DIMDI, Embase.com etc.

Keep in mind!

The MEDLINE supplement consist of records

with Controlled Terms

The Original MeSH SHs are converted to Emtree SHs

# Embase record (Copyright Elsevier)

<b>Accession Number</b>	2015166486
<b>Authors</b>	Pereira J.A. Marques M.J. Santo Neto H.
<b>Institution</b>	(Pereira, Marques, Santo Neto) Department of Structural and Functional Biology, Institute of Biology, State University of Campinas (Unicamp), Campinas, Sao Paulo, Brazil
<b>Correspondence Address</b>	H. Santo Neto, Departamento de Biologia Estrutural e Funcional, Instituto de Biologia, Universidade Estadual de Campinas (UNICAMP), Campinas SP 13083-970, Brazil
<b>Country of Publication</b>	Australia
<b>Title</b>	<b>Co-administration of deflazacort and doxycycline: A potential pharmacotherapy for Duchenne muscular dystrophy.</b>
<b>Source</b>	Clinical and Experimental Pharmacology and Physiology. 42 Jul 2015.
<b>Publisher</b>	Blackwell Publishing
<b>Keyword</b>	Calcium, Calsequestrin, Combined therapy, Mdx, MMP-9, N
<b>URL</b>	<a href="http://www.wiley.com/bw/journal...">http://www.wiley.com/bw/journal...</a>
<b>Subject Headings</b>	animal experiment animal model animal tissue article biceps brachii muscle body mass controlled study corticosteroid therapy diaphragm muscle *Duchenne muscular dystrophy / dt [Drug Therapy] female forelimb grip strength histopathology monotherapy mouse
<b>Number of References</b>	51
<b>Embase Section Headings</b>	Immunology, Serology and Transplantation [26] Clinical and Experimental Biochemistry [29] Drug Literature Index [37] Neurology and Neurosurgery [8]
<b>CAS Registry Numbers</b>	7440-70-2 (calcium); 14092-94-5 (calcium); 110735-04-1 (ca 14484-47-0 (deflazacort); 10592-13-9 (doxycycline); 17086- 94088-85-4 (doxycycline); 116978-02-0 (dystrophin); 14648
<b>ISSN</b>	0305-1870
<b>Electronic ISSN</b>	1440-1681
<b>DOI</b>	<a href="http://dx.doi.org/10.1111/1440-1...">http://dx.doi.org/10.1111/1440-1...</a>
<b>CODEN</b>	CEXPB
<b>Language</b>	English
<b>Summary Language</b>	English
<b>Publication Type</b>	Journal: Article
<b>Entry Week</b>	201529
<b>Date Delivered</b>	20150710
<b>Year of Publication</b>	2015
<b>Copyright</b>	Copyright 2015 Elsevier B.V., All rights reserved.



# Embase record (Copyright MEDLINE)

**Accession Number** 25748612

**Authors** Mega J.L. Stitzel N.O. Smith J.G. Chasman D.I. Caulfield M.J. Devlin J.J. Nordio F. Hyde C.L. Cannon C.P. Sacks F.M. Poulter N.R. Sever P.S. Ridker P.M. Braunwald E. Melander O. Kathiresan S. Sabatine M.S.

**Institution** (Mega) TIMI Study Group, Cardiovascular Division, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, USA. Electronic address: jmega@partners.org

**Country of Publication** United Kingdom

**Title** Genetic risk, coronary heart disease events, and the clinical benefit of statin therapy: an analysis of primary and secondary prevention trials.

**Source** Lancet (London, England). 385 (9984) (pp 2264-2271), 2015. Date of Publication: 06 Jun 2015.

**Subject Headings** Coronary Disease / dt [Drug Therapy]  
\*genetics  
human  
meta analysis  
numbers needed to treat  
primary prevention  
recurrent disease  
risk assessment  
secondary prevention  
treatment outcome  
hydroxymethylglutaryl coenzyme A reductase inhibitor / dt [Drug Therapy]

## MeSH Subject Headings

\*Coronary Disease / dt [Drug Therapy]  
\*Coronary Disease / ge [Genetics]  
Humans  
\*Hydroxymethylglutaryl-CoA Reductase Inhibitors / tu [Therapeutic Use]  
Numbers Needed To Treat  
Primary Prevention  
Recurrence  
Risk Assessment  
Secondary Prevention  
Treatment Outcome

**Electronic ISSN** 1474-547X

**DOI** <http://dx.doi.org/10.1016/S0140-...>

**Language** English

**Summary Language** English

**Grant Number** K08 HL114642 (NIH) \*National Institutes of Health\*, RC1 HL099634 (NIH) \*National Institutes of Health\*

**Publication Type** Journal: Article

**Entry Week** 201592

**Date Delivered** 20150706

**Year of Publication** 2015

**Copyright** Copyright 2015 Medline is the source for the citation and abstract of this record.

# Embase from 1974

More than dan 7500 journals

Embase-unique: > 2000

MEDLINE-unique: > 2500

Overlap: > 3000

More than 29.1 million records

> 19.5 million from Embase

> 9.6 million from MEDLINE

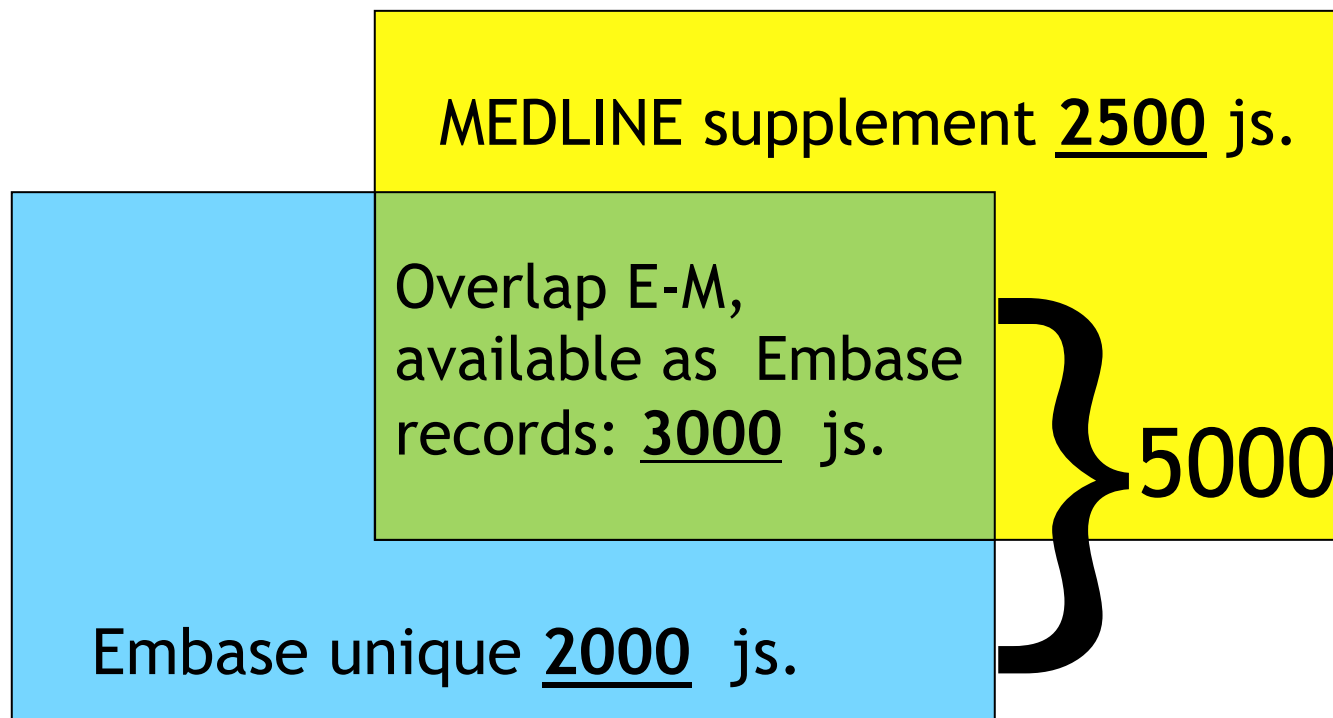
**Embase** 1974 to 2015 August 06

#	Searches	Results
1	docz.dz.	29154939
2	limit 1 to embase	19543523
3	limit 1 to medline	9611416

# Journals in Embase (> 7500)

MEDLINE supplement (yellow): 9,611,416

Time period 1902 - now; substantially from 1940



Total Embase (blue + green): 19,543,523

Time period 1908 - now; substantially from 1973

# Publication years Embase and MEDLINE

**i** Embase 1974 to 2015 August 07

	Searches	Entire database	Embase	MEDLINE
1.	docz.dz	29,154,939		
2.	limit 1 to Embase/MEDLINE		19,543,523	9,611,416
3.	2 and 190#.yr.	33	23	10
4.	2 and 191#.yr.	7	0	7
5.	2 and 192#.yr.	8	0	8
6.	2 and 193#.yr.	28	0	28
7.	2 and 194#.yr.	110,041	21	110,020
8.	2 and 195#.yr.	832,777	0	832,777
9.	2 and 196#.yr.	1,392,700	23	1,392,677
10.	2 and 197#.yr.	3,027,375	1,644,713	1,382,662
11.	2 and 198#.yr.	3,811,043	2,537,464	1,273,579
12.	2 and 199#.yr.	5,131,533	3,820,812	1,310,721
13.	2 and 200#.yr.	7,461,101	5,706,946	1,754,155
14.	2 and 201#.yr.	7,382,381	5,827,617	1,554,764

# Strengths of Embase

1. More information than MEDLINE on
  - Drugs
  - Pharmacology and pharmaceuticals
  - Conferences
2. “Richer” indexing than MEDLINE  
(this can also be a disadvantage)

Conference abstracts since 2009

They are indexed automatically (incl. Major terms)

# MEDLINE and/or Embase?

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When to perform an additional search in Embase?

1. When completeness is important
  - Systematic review
  - PhD thesis
  - Drug industry
2. When MEDLINE gives zero/few records

## **Embase Indexing Guide 2015**

**A comprehensive guide to Embase indexing policy**

[http://www.elsevier.com/\\_data/assets/pdf\\_file/0016/92104/Embase-indexing-guide-2015.pdf](http://www.elsevier.com/_data/assets/pdf_file/0016/92104/Embase-indexing-guide-2015.pdf)

# Embase: information from Elsevier

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5.3.2	Check tags.....	7
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5.3.5	Adverse drug reactions .....	9
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5.3.10	CAS Registry Numbers .....	
5.4	Candidate terms .....	
5.5	Automatic indexing.....	
5.6	Embase section headings .....	
6.	Coverage of MEDLINE in Embase.....	

## Appendices

1. Embase scope (range of topics covered)
2. Embase check tags (with scope notes)
3. Embase subheadings
4. Embase section headings



# Embase: information from Elsevier

## Appendix 1: Embase scope (range of topics covered)

Embase has a broad biomedical scope, with in-depth coverage of pharmacology, toxicology, pharmaceutical science and clinical research. Basic biomedical science, veterinary science and extensive allied health topics are also included.

Coverage focuses on the following core topics (as % of journal titles):

- Pharmacology and toxicology (12%)
- General clinical medicine (11%)
- Genetics, biochemistry & molecular biology (10%)
- Neurology & behavioral medicine (8%)
- Microbiology & infectious disease (7%)
- Cardiology & hematology (7%)
- Psychiatry & mental health (6%)
- Oncology (5%)
- Healthcare policy & management (4%)
- Allergy & immunology (4%)
- Pediatrics (4%)
- Endocrinology & metabolism (3%)
- Obstetrics & gynecology (3%)
- Biomedical engineering & medical devices (3%)
- Anesthesiology & intensive care (3%)
- Gastroenterology (2%)
- Respiratory medicine (2%)
- Nephrology & urology (2%)
- Dermatology (2%)
- Geriatrics & gerontology (1%)

# Embase: information from Elsevier

## 6. Coverage of MEDLINE in Embase

Almost 3,000 of the more than 5,000 journal titles covered by MEDLINE are independently indexed for Embase by Elsevier, using the guidelines described in this Indexing Guide.

For articles from the remaining 2,500 MEDLINE titles (with a focus on basic biomedicine, allied health and other topics that are peripheral to the core topics of Embase), MeSH terms are mapped to Emtree to provide an index that is compatible with the Elsevier indexing.

Further information is given in [a white paper “Coverage of MEDLINE in Embase”](#), which is available online and provides mapping details for all MEDLINE terms:

- Publication types (50 MEDLINE publication types are mapped to 8 Embase types)
- MeSH terms and check tags (all MeSH terms are included in Emtree)
- MeSH subheadings (many are also found in Emtree; where this is not the case, or when the definition is slightly different, an appropriate translation is made)
- MEDLINE supplementary concepts (these are mapped to Emtree or – if unique - included in Embase as candidate terms)
- Numerical codes (Molecular Sequence Numbers, Clinical Trial Numbers): these are used to generate the corresponding Embase code

Records licensed from MEDLINE are not indexed with Embase-specific indexing such as trade names and manufacturer names, or with Embase classifications.

# Coverage of MEDLINE in Embase



[http://cdn.elsevier.com/assets/pdf\\_file/0017/127331/Coverage-of-Medline-in-Embase.pdf](http://cdn.elsevier.com/assets/pdf_file/0017/127331/Coverage-of-Medline-in-Embase.pdf)

## Coverage of MEDLINE in Embase

Ian Crowlesmith

Senior Product Manager  
Content Development  
Elsevier

This is a “white paper” by Ian Crowlesmith, May 2011, with more information than the Indexing Guide

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# Evidence-based medicine

## Evidence based medicine: what it is and what it isn't

Sacket DL et al. **BMJ. 1996** Jan 13;312(7023):71-2.  
(MEDLINE 8555924.an.)



Evidence based medicine, whose philosophical origins extend back to mid-19th century Paris and earlier, remains a hot topic for clinicians, public health practitioners, purchasers, planners, and the public. There are now frequent workshops

Evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research. By individual clinical expertise we mean the



# First article evidence-based medicine

**JAMA** The Journal of the  
American Medical Association

## Evidence-Based Medicine A New Approach to Teaching the Practice of Medicine

Gordon Guyatt, MD, MSc; John Cairns, MD; David Churchill, MD, MSc; Deborah Cook, MD, MSc; Brian Haynes, MD, MSc, PhD; Jack Hirsh, MD; Jan Irvine, MD, MSc; Mark Levine, MD, MSc; Mitchell Levine, MD, MSc; Jim Nishikawa, MD; **David Sackett, MD, MSc**; Patrick Brill-Edwards, MD; Hertzell Gerstein, MD, MSc; Jim Gibson, MD; Roman Jaeschke, MD, MSc; Anthony Kerigan, MD, MSc; Alan Neville, MD; Akbar Panju, MD; Allan Detsky, MD, PhD; Murray Enkin, MD; Pamela Frid, MD; Martha Gerrity, MD; Andreas Laupacis, MD, MSc; Valerie Lawrence, MD; Joel Menard, MD; Virginia Moyer, MD; Cynthia Mulrow, MD; Paul Links, MD, MSc; Andrew Oxman, MD, MSc; Jack Sinclair, MD; Peter Tugwell, MD, MSc

**JAMA. 1992;268(17):2420-2425. doi:10.1001/jama.1992.03490170092032.**

(MEDLINE 1404801.an.)

**More than 30 authors!**

# Evidence-based medicine

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## Benefits of EBM

- Improves health care practice
- Improves patient outcomes
- Lowers health care costs

## But EBM is also criticized ...

Sometimes it is called cookbook medicine

Most therapies are NOT evidence based  
(and yet can be good therapies...)

# Evidence-based medicine

Parachute use to prevent death and major trauma related to gravitational challenge: systematic review of randomised controlled trials

Gordon C S Smith, Jill P Pell

BMJ. 2003 December 20; 327(7429): 1459-1461.

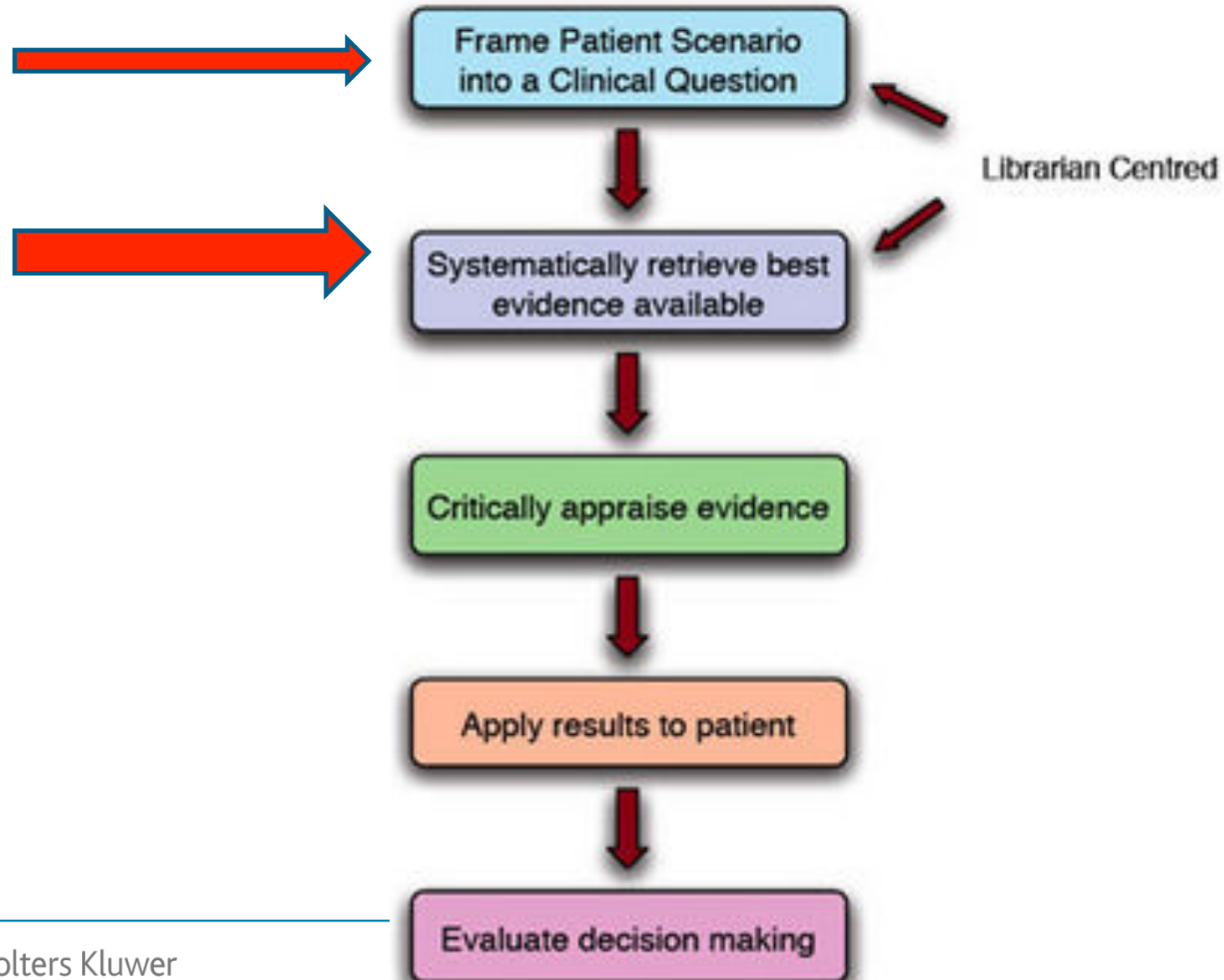
(MEDLINE 14684649 .an.)

**BMJ Christmas issue**





# The 5 steps of evidence-based medicine



# Levels of evidence



# Structured searching

- Formulate a search question
- Analyze the different **element**
- Choose appropriate database(s)
- Collect search terms for every **element**
- Combine the search terms within an element with **OR**
- Combine the elements with **AND**
- Consider the search results
- Reformulate if necessary
- Print / Download / Mail the records
- Save the search history (including database/time period)

before searching

during searching

# Structured searching

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A way of online searching

- with a “plan”
- following a scheme
- with a final report

**Synonyms:**    **conceptual searching**  
                  **systematic searching**

Systematic searching



Searching for systematic reviews

# Systematic reviews

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Systematic reviews exhaustively search for, identify, and summarise the **available evidence** that addresses a focused clinical question, with particular attention to methodological quality.

*BMJ. 330(7482):68, 2005 Jan 8. (MEDLINE 15619601.an)*

**Searching multiple resources (computerized and print) without language restrictions**

# Example of question and elements

**Q: What is the influence of pesticides on fertility?**

**Elements:**

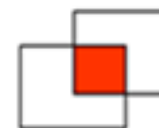
Pesticides: **pesticide**  
**pesticides**  
**separate pesticides**

Fertility: **fertility**  
**fertile**

Within an element **OR**  
Between elements **AND**



OR

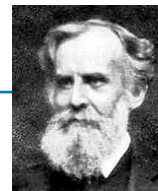
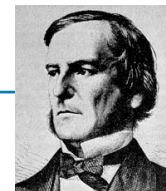


AND

Boolean operators  
and Venn diagrams

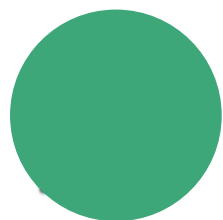
Boole: 1815-1864

Subject Headings and truncation  
can provide assistance



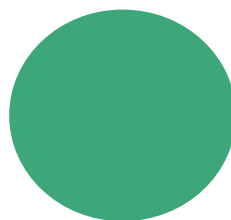
# Combinations within/between elements

Within an element: OR  
Between elements: AND



OR

Element 1



OR

Element 2



AND

# Importance of Subject Headings

---

1. Synonyms
2. Narrower Terms
3. Referrals to related terms
4. Homonyms

Mercury (Metal vs Planet)

5. Abstracts with sentences like

... did not include diabetic patients in this study ...

... on the other hand ...



# Subject Headings: 1. Synonyms

---

## **Kidney disease(s), renal disease(s), ...**

When a database producer selects one of these terms as a Subject Heading, and adds this Subject Heading to the relevant records, searching with that Subject Heading is sufficient ... but in most searches, free text searching can expand search results (especially when not all records in the database contain Subject Headings)

# Subject Headings: 2. Narrower Terms

---

**Kidney Diseases**

**Nephritis**

**Glomerulonephritis**

**Glomerulonephritis, IGA**

When you are interested in Kidney Diseases, you are also interested in (Glomerulo)Nephritis and Glomerulonephritis, IGA

With **explode**, you can search for Kidney Diseases and all of its Narrower Terms **in an OR combination**

MEDLINE indexers have to index as specific as possible!

# How would you search for this topic?

---

**Q: What is the influence of pesticides on fertility?**

**Database: MEDLINE**

# Subject Headings: 3. Related Terms

Ovid® « Previous Page

Search Journals Books Multimedia My Workspace Links ▾ OvidMD

**Scope Note for:** *Fertility*

**MeSH HEADING:** FERTILITY

Antonyms should be considered as search terms!

reliability/unreliability of memory

**SCOPE:** The capacity to conceive or to induce conception. It may refer to either the male or female.

**NOTE:** *MA* for human, other mammals, birds & fish, *NI* for animals lower than fish, plants & micro-organ

## REFERENCES:

### See Related:

INFERTILITY

### Used For:

fertility  
survey world fertility  
natural fertility

**Scope Note for:** *fertility*

**MAIN TERM:** fertility

**DATE OF ENTRY:** 19740101

**SCOPE NOTE:**

**Used For:**

fecundity  
sperm-ovum interactions

Embase Scope Note  
for fertility

# Main Search Page of MEDLINE

Ovid® Support & Training Help Logged in as dbr

[Search](#) [Journals](#) [Books](#) [Multimedia](#) [My Workspace](#) [Links](#) [OvidMD](#) [EBP Tools](#)

▼ **Search History** (0 searches) *(close)* View Saved

<input type="checkbox"/>	# ▲	Searches	Results	Search Type	Acti
-	-	-	-	-	-

| Combine selections with:

---

**Basic Search** | [Find Citation](#) | [Search Tools](#) | [Search Fields](#) | [Advanced Search](#) | [Multi-Field Search](#)

[1 Resource selected](#) | [Hide](#) | [Change](#) ←

← **i** [Ovid MEDLINE\(R\) In-Process & Other Non-Indexed Citations, Ovid MEDLINE\(R\) Daily, Ovid MEDLINE\(R\) and Ovid OLDMEDLINE\(R\) 1946 to Present](#)

Enter keyword or phrase  
(\* or \$ for truncation)

**Keyword**  Author  Title  Journal

▼ **Limits** *(close)*  Include Multimedia  Map Term to Subject Heading

# Basic Search in MEDLINE

[Search](#) [Journals](#) [Books](#) [Multimedia](#) [My Workspace](#) [Links](#) [OvidMD](#)

▼ **Search History** (0 searches) *(close)*

<input type="checkbox"/>	# ▲	Searches
-	-	-

[Remove Selected](#) [Save Selected](#) | Combine selections with: [And](#) [Or](#)

**Basic Search** | [Find Citation](#) | [Search Tools](#) | [Search Fields](#) | [Advanced Search](#) | [Multi-F](#)

1 Resource selected | [Hide](#) | [Change](#)

[i](#) Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily, Ovid MEDL

[?](#)  [Search](#)

▼ **Limits** *(close)*  Include Multimedia  Include Related Terms

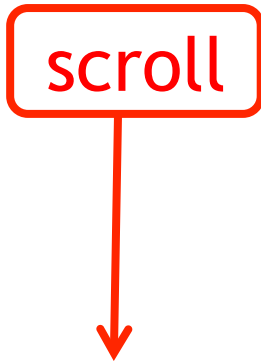
# Basic Search in MEDLINE

Ovid® Support & Training Help Lo

**Search** Journals Books Multimedia My Workspace Links ▾ OvidMD EBP Tools ▾

▼ **Search History** (1 search) (close)

<input type="checkbox"/>	# ▲	Searches	Results	Search Type
<input type="checkbox"/>	1	What is the influence of pesticides on fertility? {Including Related Terms}	10867	Basic



# Basic Search in MEDLINE

**Results Tools** Options

All  Print Email Export Add to My Projects Keep Selected

**Search Information**  **View:** Title | Citation | **Abstract** | 100 Per Page | 1 |

**You searched:**  
What is the influence of pesticides on fertility?  
{Including Related Terms}  
- Search terms used:  
▶ pesticides  
pesticide  
▶ fertility  
fertilities  
fecundity  
fecundability

**Search Returned:**  
10867 text results

**Sort By:**

**Customize Display**

**Filter By**

Add to Search History

+ Selected Only ( 0 )

- Relevancy  
All Stars  
5 stars only  
4 or more  
3 or more  
2 or more

**Relevance: ★★★★★**

1.  **Influence of pesticides on male fertility.**  
[Review] [111 refs]

Bretveld R; Brouwers M; Ebisch I; Roeleveld N.  
*Scandinavian Journal of Work, Environment & Health.*  
33(1):13-28, 2007 Feb.  
**UI:** 17353961

**Status**  
MEDLINE

**MeSH Heading**  
Central Nervous System/de [Drug Effects]. \*Environmental Exposure/ae [Adverse Effects]. \*Fertility/de [Drug Effects]. Fertilization/de [Drug Effects]. Hormones/me [Metabolism]. Humans. \*Infertility, Male/ci [Chemically Induced]. Male. \*Pesticides/ae [Adverse Effects]. \*Pesticides/pd [Pharmacology]. Semen/de [Drug Effects]. Thyroid Gland/de [Drug Effects].

**Entry Date**  
20070509  
▶ **View Abstract**

+ My Projects + Annotate

**Abstract Reference**  
**Complete Reference**

**Find Similar**  
**Find Citing Articles**

**Document Delivery**  
**Bibliographic Links**  
**Ovid LinkSolver™**

**OPEN ACCESS RESULTS**

**Biobanking efforts and new advances in male fertility preservation for rare and endangered species**  
Comizzoli, Pierre

**Negative biomarker-based male fertility evaluation**  
Sutovsky, Peter Aarabi, Mahmoud Miranda-Vizuete, Antonio Oko, Richard

**Undescended testicle**  
Goel, Prabudh Rawat, J.D. Wakhlu, A. Kureel, S.N.

**Relationship between gender role attitude and fertility rate in women referring to health centers in Mashhad in 2013**  
Golmakani, Nahid Fazeli, Elham Taghipour, Ali Shakeri, Mohammad Taghi

**Identification of longevity, fertility and growth-promoting properties of pomegranate in Caenorhabditis elegans**  
Kilicgun, Hasan Arda, Nazli Ucar, Evren Onay

**2 steps!**

**5 stars only**

**Abstract Reference**  
**Complete Reference**

48



# Basic Search in MEDLINE

Ovid<sup>®</sup> [Support & Training](#) [Help](#) [Log](#)

[Search](#) [Journals](#) [Books](#) [Multimedia](#) [My Workspace](#) [Links](#) [OvidMD](#) [EBP Tools](#)

▼ **Search History** (2 searches) (close)

<input type="checkbox"/>	# ▲	Searches	Results	Search Type
<input type="checkbox"/>	1	What is the influence of pesticides on fertility? {Including Related Terms}	10867	Basic
<input type="checkbox"/>	2	<b>limit 1 to five stars</b>	<b>448</b>	<b>Advanced</b>

# Basic Search versus Advanced Search

---

## Basic Search

- Suitable search mode for an initial exploration
- Simple, Google-like searching
- May help in finding some new search terms

## Advanced Search

- Best search mode for structured searching
- Assistance in finding Subject Headings
- Explode of Subject Headings
- Major Subject Headings
- Boolean combinations
- Selection of search fields

# Advanced Search: first element

[Basic Search](#) | [Find Citation](#) | [Search Tools](#) | [Search Fields](#) | **Advanced Search** | [Multi-Field Search](#)

1 Resource selected | [Hide](#) | [Change](#)

**Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily, Ovid MEDLINE(R) and Ovi**

Enter keyword or phrase  
(\* or \$ for truncation)

**Keyword**    Author    Title    Journal

▼ **Limits** *(close)*    Include Multimedia    Map Term to Subject Heading

Always start with the most important element!  
When it gives a low number of records, you  
could skip further searching.

# Mapping of pesticide

Ovid® Wolters K  
Support & Training Help Logged in as dbrand

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## Your term mapped to the following Subject Headings:

Click on a subject heading to view more general and more specific terms within the tree.

*Term is a thesaurus term*


Include All Subheadings

Combine selections with:

Continue >>

Select	Subject Heading	Explode	Focus	Scope
<input checked="" type="checkbox"/>	Pesticides ←	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	pesticide.mp. search as Keyword			

### ? Hints:

- Click on a Subject Heading to view its tree - related terms that are more general and more specific.
- Select the Explode box if you wish to retrieve results using the selected term and all of its more specific terms.
- Select the Focus box if you wish to limit your search to those documents in which your subject heading is considered the major point of the article.
- If your search did not map to a desirable subject heading, select the box Search as Keyword.
- If you select more than one term, you can combine them using a boolean operator (AND or OR).
- If you wish to see the scope note for any term or heading, click on the information  icon, when available.

# Tree of MEDLINE

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Search

Journals

Books

Multimedia

My Workspace

Links ▾

OvidMD

EBP Tools ▾

Tree for **Pesticides**

Da

Combine selections with: OR ▾

Continue »

Contexts

Scroll down for highlighted search term.

Select Term(s)	Subject Heading	Hits	Explode
<input type="checkbox"/> [-] <input checked="" type="checkbox"/> Pesticides		15501	<input checked="" type="checkbox"/>
<input type="checkbox"/> [+] [Drug Terms (Non MeSH)]			
<input type="checkbox"/> [+] <input type="checkbox"/> Chemosterilants		476	<input type="checkbox"/>
<input type="checkbox"/> [+] <input type="checkbox"/> Fungicides, Industrial		5216	<input type="checkbox"/>
<input type="checkbox"/> [+] <input type="checkbox"/> Herbicides		13732	<input type="checkbox"/>
<input type="checkbox"/> [+] <input type="checkbox"/> Insect Repellents		1943	<input type="checkbox"/>
<input type="checkbox"/> [+] <input type="checkbox"/> Insecticides		37223	<input type="checkbox"/>
<input type="checkbox"/> [+] <input type="checkbox"/> Molluscacides		1078	<input type="checkbox"/>
<input type="checkbox"/> [+] <input type="checkbox"/> Pesticide Synergists		336	<input type="checkbox"/>
<input type="checkbox"/> [+] <input type="checkbox"/> Rodenticides		1221	<input type="checkbox"/>

Pesticides has  
Narrower Terms,  
so Explode is  
necessary!

# Subheadings (not obliged)

Subheadings for: **exp Pesticides**

Combine selections with:



**Include All Subheadings**

-- or choose one or more of these subheadings --

- /ad - Administration & Dosage
- /ae - Adverse Effects
- /an - Analysis
- /ai - Antagonists & Inhibitors
- /bl - Blood
- /cs - Chemical Synthesis
- /ch - Chemistry
- /cl - Classification
- /ec - Economics
- /hi - History
- /im - Immunology

- /ip - Isolation & Purification
- /me - Metabolism
- /pk - Pharmacokinetics
- /pd - Pharmacology
- /po - Poisoning
- /re - Radiation Effects
- /st - Standards
- /sd - Supply & Distribution
- /tu - Therapeutic Use
- /to - Toxicity
- /ur - Urine

# First term of the 2<sup>nd</sup> element: fertility

## ▼ Search History (3 searches) (close)

<input type="checkbox"/>	# ▲	Searches	Results	Search Type
<input type="checkbox"/>	1	What is the influence of pesticides on fertility? {Including Related Terms}	10867	Basic
<input type="checkbox"/>	2	limit 1 to five stars	448	Advanced
<input type="checkbox"/>	3	exp Pesticides/	134515	Advanced

[Remove Selected](#) [Save Selected](#) | Combine selections with: [And](#) [Or](#)

[Basic Search](#) | [Find Citation](#) | [Search Tools](#) | [Search Fields](#) | [Advanced Search](#) | [Multi-Field Search](#)

1 Resource selected | [Hide](#) | [Change](#)

**i** Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily, Ovid MEDLINE(R) and Ovid OLDMEDLINE

Enter keyword or phrase  Keyword  Author  Title  Journal

(\* or \$ for truncation)

fertility

Search

▼ Limits (close)

Include Multimedia

Map Term to Subject Heading

# Mapping of fertility

Select	Subject Heading
<input checked="" type="checkbox"/>	Fertility ←
<input type="checkbox"/>	Fertility Agents, Female
<input type="checkbox"/>	Fertility Agents, Male
<input type="checkbox"/>	Fertility Preservation
<input type="checkbox"/>	Fertility Agents
<input type="checkbox"/>	fertility.mp. search as Keyword

## Tree for Fertility

Combine selections with: OR ▾

Continue »

Contexts

Scroll down for highlighted search term.

Fertility has 2 Narrower Terms

Select Term(s)	Subject Heading	Hits	Explode
<input checked="" type="checkbox"/> Fertility		33414	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Ovarian Reserve	90	<input type="checkbox"/>
<input type="checkbox"/>	Time-to-Pregnancy	76	<input type="checkbox"/>



# 2<sup>nd</sup> term of the 2<sup>nd</sup> element: infertility

<input type="checkbox"/>	# ▲	Searches	Results
<input type="checkbox"/>	1	What is the influence of pesticides on fertility? {Including Related Terms}	10867
<input type="checkbox"/>	2	limit 1 to five stars	448
<input type="checkbox"/>	3	exp Pesticides/	134515
<input type="checkbox"/>	4	<b>exp Fertility/</b>	<b>33551</b>

| Combine selections with:

[Basic Search](#) | [Find Citation](#) | [Search Tools](#) | [Search Fields](#) | [Advanced Search](#) | [Multi-Field Search](#)

1 Resource selected | [Hide](#) | [Change](#)

Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily, Ovid MEDLINE(R) and Ovid

Enter keyword or phrase  **Keyword**  Author  Title  Journal

(\* or \$ for truncation)

▼ **Limits** (close)

Include Multimedia

**Map Term to Subject Heading**

# 2<sup>nd</sup> term of the 2<sup>nd</sup> element: infertility

Select	Subject Heading
<input checked="" type="checkbox"/>	Infertility ←
<input type="checkbox"/>	Infertility, Female
<input type="checkbox"/>	Infertility, Male
<input type="checkbox"/>	Plant Infertility
<input type="checkbox"/>	infertility.mp. <i>search as Keyword</i>

Tree for **Infertility**

Combine selections with:

Infertility

- [-] Infertility, Male
  - Aspermia
  - Asthenozoospermia
  - Azoospermia
  - Oligospermia
  - Sertoli Cell-Only Syndrome

Infertility has Narrower Terms

Where is Infertility, Female?

Penile Diseases

# 2<sup>nd</sup> term of the 2<sup>nd</sup> element: infertility

Tree for **Infertility**

Combine selections with:

*Scroll down for highlighted search term.*

Select Term(s)	Subject Heading	Hits	Explode
<input type="checkbox"/>	Genital Diseases, Male	5651	<input type="checkbox"/>
<input type="checkbox"/>	Infertility	9647	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Infertility, Male	19324	<input type="checkbox"/>
<input type="checkbox"/>	Genital Diseases, Female	16547	<input type="checkbox"/>
<input type="checkbox"/>	Infertility	9647	<input type="checkbox"/>
<input type="checkbox"/>	Infertility, Female	24684	<input type="checkbox"/>

Explode of Infertility searches for this MeSH Term and all of its NTs: Infertility, Male and Infertility, Female and the NT's of Infertility, Male

# Boolean combinations

<input type="checkbox"/>	# ▲	Searches	Results
<input type="checkbox"/>	1	What is the influence of pesticides on fertility? {Including Related Terms}	10867
<input type="checkbox"/>	2	limit 1 to five stars	448
<input type="checkbox"/>	3	exp Pesticides/	134515
<input type="checkbox"/>	4	exp Fertility/	33551
<input type="checkbox"/>	5	exp Infertility/	55649
<input type="checkbox"/>	6	4 or 5	85936
<input type="checkbox"/>	<b>7</b>	<b>3 and 6</b>	<b>859</b>

# 7 records out of the first 10 (of 859)

2.  Dominant fitness costs of abamectin resistance in **Plutella xylostella**.

---

3.  Thiamethoxam resistance selected in the western **flower thrips Frankliniella occidentalis** (Thysanoptera: Thripidae): cross-resistance patterns, possible biochemical mechanisms and fitness costs analysis.

---

5.  Transgenerational impaired male fertility with an Igf2 epigenetic defect **in the rat**

---

6.  Effects of two pesticides, TZP and JGM, on reproduction of three **planthopper** species, Nilaparvata lugens Stal, Sogatella furcifera Horvath, and Laodelphax striatella Fallen.

---

7.  Investigating apical adverse effects of four endocrine active substances in the freshwater **gastropod Lymnaea stagnalis**.

---

9.  Acaricidal activity of alkaloid fractions of Leucas indica Spreng against Rhipicephalus (Boophilus) **annulatus tick**.

---

10.  The effects of genetic manipulation, dieldrin treatment and irradiation on the mating competitiveness of male **Anopheles arabiensis** in field cages.

# Limit to Humans

<input type="checkbox"/>	# ▲	Searches	Results
<input type="checkbox"/>	1	What is the influence of pesticides on fertility? {Including Related Terms}	10867
<input type="checkbox"/>	2	limit 1 to five stars	448
<input type="checkbox"/>	3	exp Pesticides/	134515
<input type="checkbox"/>	4	exp Fertility/	33551
<input type="checkbox"/>	5	exp Infertility/	55649
<input type="checkbox"/>	6	4 or 5	85936
<input type="checkbox"/>	7	3 and 6	859
<input type="checkbox"/>	8	<b>limit 7 to humans</b>	<b>231</b>

Will free text search add relevant records?

# Expanded search: free text added

3	exp Pesticides/	134515
4	exp Fertility/	33551
5	exp Infertility/	55649
6	4 or 5	85936
7	3 and 6	859
8	limit 7 to humans	231
9	3 or pesticid*.ti,ab,kf.	143844
10	6 or (fertil* or steril* or infertil*).ti,ab,kf.	257158
11	9 and 10	3078
12	limit 11 to humans	748
13	11 and human?.ti,ab,kf.	394
14	12 or 13	887
15	14 not 8	656

# Non-relevant records

Exposure to pesticides and metal contaminants of fertilizer among tree planters.

RESULTS: 293 case and 3,198 control subjects were interviewed. We did not identify positive associations with activities in farming or forestry, pesticide application or pesticide mixing. No consistent positive associations were seen with exposure intensity level scores either. The only statistically significantly raised association in this study was for exposure to chemical fertilizers in forestry (OR = 8.93; 95% CI

Nine preparations of six antiseptic substances were applied to the perineum of pregnant women at term in order to assess their efficacy in sterilizing the skin. The efficacy, in descending order of

Truncation was too broad ...



# More restricted truncation

3	exp Pesticides/	134515
4	exp Fertility/	33551
5	exp Infertility/	55649
6	4 or 5	85936
7	3 and 6	859
8	limit 7 to humans	231
9	3 or pesticid*.ti,ab,kf.	143844
10	6 or (fertil* or steril* or infertil*).ti,ab,kf.	257158
11	9 and 10	3078
12	limit 11 to humans	748
13	11 and human?.ti,ab,kf.	394
14	12 or 13	887
15	14 not 8	656
16	6 or (fertil*3 or steril*3 or infertil*3).ti,ab,kf.	187034
17	9 and 16	1860
18	limit 17 to humans	504
19	17 and human?.ti,ab,kf.	251
20	18 or 19	570
21	20 not 8	339

# Limiting the search to Focus SHs

Select	Subject Heading	Explode	Focus
<input checked="" type="checkbox"/>	Pesticides	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	pesticide.mp. search as Keyword		

22	exp *Pesticides/	98104
----	------------------	-------

3 Selected | Save Selected | Combine selections with: And Or

[Search](#) | [Find Citation](#) | [Search Tools](#) | [Search Fields](#) | [Advanced Search](#) | [Multi-Field Search](#)

1 Resource selected | [Hide](#) | [Change](#)

**i** Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily, Ovid MEDLINE(R) and Ovid

Keyword or phrase  **Keyword**  Author  Title  Journal

or truncation)

\*3 means: exp Pesticides (set 3) is “limited” to Focus

# Limiting the search to Focus SHs

22	exp *Pesticides/	98104
<b>23</b>	<b>exp *Pesticides/</b>	<b>98104</b>

24	exp *Pesticides/ and (exp *Fertility/ or exp *Infertility/)	235
<b>25</b>	<b>limit 24 to humans</b>	<b>83</b>

# Limiting to Focus SHs plus titles

25	limit 24 to humans	83
26	exp *Pesticides/ or pesticid*.ti.	99946
27	exp *Fertility/ or exp *Infertility/ or (fertil*3 or sterit*3 or infertit*3).ti.	70109
28	26 and 27	315
29	limit 28 to humans	101
30	28 and human?.ti.	3
31	29 or 30	101
<b>32</b>	<b>31 not 25</b>	<b>18</b>

# Summary of all “attempts”

---

1. MeSH Headings	231
2. MeSH Headings plus .ti,ab,kf.	887
3. Idem, with *3-truncation	570
4. Focus MeSH Headings	83
5. Focus MeSH Headings plus titles	101

# Agenda, part 2

---

## Embase items

7. Emtree versus MeSH
8. Candidate terms
9. Limits in Embase

## Ovid items

10. Truncation
11. Adjacency
12. ..dedup
13. OR/5-20
14. Transfer of a search strategy
15. Analysis of authors, journals, etc.

## Extra

16. (Dis)advantages of MEDLINE/Ovid compared to Pubmed

# Emtree versus MeSH

---

When an Embase Subject Heading has more than 1 position in Emtree, its Narrower Terms are the same in all positions

This is different from the situation in the MeSH tree in MEDLINE

So Embase does not have a **Context** button

# MeSH tree in MEDLINE Ovid

## Tree for Eye

Combine selections with:

Scroll down for highlighted search term.

### Select Term(s)

[-] Anatomy (Non MeSH)

[-] Body Regions

Anatomical Landmarks

[+] Breast

[+] Extremities

[-] Head

Ear

[-]  Face

Cheek

Chin

[-] Eye

Eyebrows

[+] Eyelids

Forehead

## Tree for Eye

Combine selections with:

Scroll down for highlighted search term.

Select Term(s)	Subject Heading	Hits
<input type="checkbox"/> Face		32749
<input type="checkbox"/> Eye		29837
<input type="checkbox"/> Eyebrows		1397
<input type="checkbox"/> Eyelids		11993
<input type="checkbox"/> Sense Organs		2065
<input type="checkbox"/> Eye		29837
<input type="checkbox"/> Anterior Eye Segment		3173
<input type="checkbox"/> Anterior Capsule of the Lens		86
<input type="checkbox"/> Axial Length, Eye		565
<input type="checkbox"/> Eyelids		11993
<input type="checkbox"/> Lacrimal Apparatus		6856
<input type="checkbox"/> Oculomotor Muscles		13032
<input type="checkbox"/> Pigment Epithelium of Eye		9707
<input type="checkbox"/> Posterior Eye Segment		193
<input type="checkbox"/> Retina		64458
<input type="checkbox"/> Sclera		9337
<input type="checkbox"/> Tenon Capsule		122
<input type="checkbox"/> Uvea		1865



# Candidate terms in Embase

---

Indexers may find that concepts discussed in articles are not adequately covered by an existing Emtree term.

In such cases new so-called **candidate terms** may be proposed.

Indexers who propose candidate terms are expected to assign a broader “umbrella” term to cover the new concept at a higher level.

# Candidate terms in Embase

Accession Number	2013507350
Authors	<a href="#">Manning B.J.</a> <a href="#">Resch T.A.</a>
Title	Wired and raring to go: The preloaded fenestrated stent-graft.
Source	Journal of Endovascular Therapy. 20 (4) (pp 469-470), 2013. Date of Publication: August 2013.
Publisher	Allen Press Publishing Services (810 E, 10th Street, Lawrence KS 66044, United States)
URL	<a href="http://www.jevtonline.org/doi/pd...">http://www.jevtonline.org/doi/pd...</a>
Subject Headings	<a href="#">catheterization</a> <a href="#">*endovascular surgery</a> <a href="#">femoral artery</a> <a href="#">fluoroscopy</a> <a href="#">limb ischemia</a> <a href="#">note</a> <a href="#">operation duration</a> <a href="#">*preloaded fenestrated stent graft</a> ← <a href="#">priority journal</a> <a href="#">*stent</a>


Candidate term, added in 2013

# Candidate terms in Embase

\*preloaded fenestrated stent graft

[Basic Search](#) | [Find Citation](#) | [Search Tools](#) | [Search Fields](#) |

**1 Resource selected** | [Hide](#) | [Change](#)

 **Embase** 1974 to 2015 Week 18

Permuted Index ▼ preloaded



**A permuted index is not available for the term that you entered: 'preloaded' .**

# Limits in Embase

---

## How to limit in general?

1. Add a new element with AND
2. Use Focus Subject Headings (instead of Subject Headings)
3. Search in titles (instead of .ti,ab. .mp. .af.)
4. Use Limits

# Limits in Embase

▼ **Limits** *(close)*

Include Multimedia

Map Term to Subject Heading

Full Text

Latest Update

Abstracts

Human

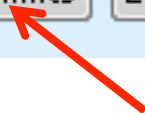
Cochrane Library

English Language

Publication Year -  -

Additional Limits

Edit Limits



# Additional Limits in Embase

<input type="checkbox"/> Ovid Full Text Available	<input type="checkbox"/> Full Text	<input type="checkbox"/> Latest Update
<input type="checkbox"/> Priority Journals	<input type="checkbox"/> Abstracts	<input type="checkbox"/> Human
<input type="checkbox"/> Animals	<input type="checkbox"/> Animal Studies	<input type="checkbox"/> Cochrane Library
<input type="checkbox"/> Male	<input type="checkbox"/> Female	<input type="checkbox"/> English Language
<input type="checkbox"/> Exclude MEDLINE Journals		

Publication Year - -

To select or remove multiple items from a list below, hold down the Shift, Ctrl, or "Apple" key while selecting.

Records From

- Embase
- MEDLINE

EBM-Evidence Based Medicine

- Evidence Based Medicine
- Consensus Development
- Meta Analysis
- Outcomes Research

Clinical Trials

- Clinical Trial
- Randomized Controlled Trial
- Controlled Clinical Trial
- Multicenter Study
- Phase 1 Clinical Trial

Clinical Queries

- Reviews (maximizes sensitivity)
- Reviews (maximizes specificity)
- Reviews (best balance of sensitivity and specificity)
- Therapy (maximizes sensitivity)
- Therapy (maximizes specificity)

Languages

- Afrikaans
- Albanian
- Arabic
- Armenian
- Azerbaijani

Publication Types

- Article
- Book
- Book Series
- Conference Abstract
- Conference Paper

Human Age Groups

- Embryo <first trimester>
- Infant <to one year>
- Child <unspecified age>
- Preschool Child <1 to 6 years>
- School Child <7 to 12 years>

Experimental Subjects

- Animals <Category Heading>
- ...Amphibia
- ...Ape
- ...Bird
- ...Cat

Routes of Drug Administration

Star Ranking

# Additional Limits in Embase

Exclude MEDLINE Journals

Do not use this limit!  
It does not do what you expect from it

Embase 1974 to 2015 August 07

#	Searches	Results
1	docz.dz.	29173104
2	limit 1 to exclude medline journals	2014677
3	limit 2 to medline	106912
4	lancet.jn.	124047
5	2 and 4	0
6	limit 4 to embase	67922
7	limit 4 to medline	56125

Lancet is a MEDLINE journal

But Lancet also is an Embase journal!

The collection of MEDLINE journals varies over time

# Truncation in Ovid

- \* or \$ 0, 1, or more characters behind a root  
adolescen\* pollut\*
- # exactly 1 character  
wom#n organi#ation
- ? 1 or 0 character(s)  
colo?r engine?
- \*3 or ??? up to 3 characters  
fertil??? fertil\*3



# Adjacency: sequence and distance of words

1	anxiety disorder.ti.	Adjacency is important in free text searching!!!	3216
2	disorder anxiety.ti.	Blank: sequence fixed	31
3	1 or 2		3244
4	(anxiety adj1 disorder).ti.	adjn sequence free n-1 words in between	3244
5	(anxiety adj2 disorder).ti.		3361
6	(anxiety adj3 disorder).ti.		3545
7	(anxiety adj4 disorder).ti.		3674
8	(anxiet*3 adj3 disorder*).ti.		8407
9	(anxiet*3 adj3 disorder*).ti.		8407

117

184

129

# Adjacency: sequence and distance of words

117 adj2 not adj1

Adjustment **disorder** with **anxiety** in old age: Comparing prevalence and clinical management in primary care and mental health care.

184 adj3 not adj2

Tryptophan hydroxylase 2 gene Polymorphism in **anxiety** and depressive **disorder** in Kashmiri population.

129 adj4 not adj3

**Anxiety**, post-traumatic stress **disorder** and social supports among parents of premature and full-term infants.

In most cases, adj3 gives good additional information

Words in between can be stopwords (*with, and*)

# Dot dot commands

---

The only dot dot commands I use are:

**..ps** (for making a nice Search History)

**..dedup n** (for example: **..dedup 5**)  
for deduplication in single database searching

# ..ps (Print Screen) and ..dedup

▼ Search History (7 searches) (close)

<input type="checkbox"/>	# ▲	Searches	Results
<input type="checkbox"/>	1	exp pesticide/	275808
<input type="checkbox"/>	2	exp fertility/	61014
<input type="checkbox"/>	3	exp infertility/	96937
<input type="checkbox"/>	4	1 and (2 or 3)	2026
<input type="checkbox"/>	5	limit 4 to human	941
<input type="checkbox"/>	6	remove duplicates from 5	933
<input type="checkbox"/>	7	5 not 6	8

Normal Search History

..dedup 5

Embase 1974 to 2015 August 07

#	Searches	Results
1	exp pesticide/	275808
2	exp fertility/	61014
3	exp infertility/	96937
4	1 and (2 or 3)	2026
5	limit 4 to human	941
6	remove duplicates from 5	933
7	5 not 6	8

..ps Search History

# First removed record (after dedup)

1.  **Environmental toxins: Alarming impacts of pesticides on male fertility.**

Sengupta P., Banerjee R.

*Human and Experimental Toxicology*. 33 (10) (pp 1017-1039), 2014. Date of Publication: 19 Oct 2014.

**AN:** 2015674420

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8

(environmental toxins and alarming impacts and pesticides and male fertility).ti.

2

1.  **Environmental toxins: alarming impacts of pesticides on male fertility.**

Sengupta P., Banerjee R.

*Human & experimental toxicology*. 33 (10) (pp 1017-1039), 2014. Date of Publication: 01 Oct 2014.

**AN:** 24347299

**Copyright**

Copyright 2015 Medline is the source for the citation and abstract of this record.

2.  **Environmental toxins: Alarming impacts of pesticides on male fertility.**

Sengupta P., Banerjee R.

*Human and Experimental Toxicology*. 33 (10) (pp 1017-1039), 2014. Date of Publication: 19 Oct 2014.

**AN:** 2015674420

**Copyright**

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In this case, the Embase record was removed ...

# OR/n-m

# Smart Ovid combinations

The MEDLINE search strategy is as follows:

1. exp PROBIOTICS/tu or probiotic\$.tw.
2. exp LACTOBACILLUS/ or lactobacill\$.tw. or "l acidophilus".tw. or "l casei".tw. or bifidobacter\$.mp. or "b infantis".tw. or "b bifidum".tw. or "b longum".tw. or saccharomyce\$.mp. or "s boulardii".tw. or clostridium butyricum.tw. or clostridium difficile.mp. or "streptococcus thermophilus".tw. or enterococcus faecium.mp.
3. exp antibiosis/ or biotherapeutic agent\$.tw.
4. or/1-3
5. exp Anti-Bacterial Agents/ or antimicrobial\$.tw. or antibiotic\$.tw.
6. ((antimicrobial or anti microbial or antimicrobial or antimycobacteri\$ or antibacteri\$ or bacteriocid\$) adj3 agent\$).tw.
7. 5 or 6
8. exp DIARRHEA/ or diarrhea.tw. or diarrhoe\$.tw. or diarhe\$.tw. or diahoe\$.tw. or dysenter\$.tw. or gastro enteritis\$.tw. or gastroenteriti\$.tw.
9. and/4,7-8
10. child/ or infant/ or adolescence/ or exp infant, new born/ or exp child, preschool/
11. (child\$ or newborn\$ or adolescen\$ or infan\$).tw.
12. (preschool\$ or pre-school\$).tw.

13. teen\$.tw.
  14. (kindergarten\$ or kindergarden\$).tw.
  15. elementary school\$.tw.
  16. secondary school\$.tw.
  17. nursery school\$.tw.
  18. high school\$.tw.
  19. highschool\$.tw.
  20. youth\$.tw.
  21. (baby\$ or babies\$ or premie\$ or premature\$).tw.
  22. (schoolchild\$ or "school child\$").tw.
  23. (schoolage\$ or school age\$).tw.
  24. toddler\$.tw.
  25. pubert\$.tw.
  26. (pre-pubescen\$ or prepubescen\$ or post-pubescen\$ or post-pubescen\$).tw.
  27. (kid or kids or boy\$ or girl\$).tw.
  28. juvenile.tw.
  29. or/10-28
  30. 9 and 29
  31. Cochrane RCT filter ([Dickersin 1994](#)).
  32. 30 and 31
- [/=MeSH term, exp=explode, tw=textword, mp=multipurpose word, \$=truncation]

[Probiotics for the prevention of pediatric antibiotic-associated diarrhea.](#)

Johnston BC, Supina AL, Ospina M, Vohra S.

Cochrane Database Syst Rev. 2007 Apr 18;(2):CD004827. Review.

# Same search in PubMed

1. "Probiotics/therapeutic use"[Mesh] OR probiotic\*[tiab]
2. "Lactobacillus"[Mesh] OR actobacill\*[tiab] OR "l acidophilus"[tiab] OR "l casei"[tiab] OR bifidobacter\*[tiab] OR "b infantis"[tiab] OR "b bifidum"[tiab] OR "b longum"[tiab] OR saccharomyce\*[tiab] OR "s boulardii"[tiab] OR "clostridium butyricum"[tiab] OR "clostridium difficile"[tiab] OR "streptococcus thermophilus"[tiab] OR "enterococcus faecium"[tiab]
3. "Antibiosis"[Mesh] OR "biotherapeutic agent"[tiab] OR "biotherapeutic agents"[tiab]
4. 1 or 2 or 3
5. "Anti-Bacterial Agents"[Mesh] OR antimicrobial\*[tiab] OR antibiotic\*[tiab]
6. (antimicrobial[tiab] OR "anti microbial"[tiab] OR antimicrobial[tiab] OR antimycobacteri\*[tiab] OR antibacteri\*[tiab] OR bacteriocid\*[tiab]) AND agent\*[tiab]
7. 5 or 6
8. "Dianhea"[Mesh] OR dianhea[tiab] OR dianhoe\*[tiab] OR diarhe\*[tiab] OR diahoe\*[tiab] OR diahoe\*[tiab] OR dysenter\*[tiab] OR gastroenteriti\*[tiab] OR "gastro enteritis"[tiab]
9. 4 AND 7 AND 8
10. "Adolescent"[Mesh] OR "Child"[Mesh] OR "Infant"[Mesh]
11. child\*[tiab] OR newborn\*[tiab] OR adolescen\*[tiab] OR infam\*[tiab]
12. preschool\*[tiab] or "pre school"[tiab]
13. teen\*[tiab]
14. kindergarten\*[tiab] OR kindergarden\*[tiab]
15. "elementary school"[tiab] OR "elementary schools"[tiab]
16. "secondary school"[tiab] OR "secondary schools"[tiab]
17. "nursery school"[tiab] OR "nursery schools"[tiab]
18. "high school"[tiab] OR "high schools"[tiab]
19. highschool\*[tiab]
20. youth\*[tiab]
21. baby\*[tiab] OR babies\*[tiab] or preemie\*[tiab] OR premature\*[tiab]
22. schoolchild\*[tiab] OR "school child"[tiab] OR "school children"[tiab]
23. schoolage\*[tiab] OR "school age"[tiab] OR "school aged"[tiab] OR "school ages"[tiab]
24. toddler\*[tiab]
25. pubert\*[tiab]
26. prepubescen\*[tiab] OR "pre pubescent"[tiab] OR postpubescen\*[tiab] OR "post pubescent"[tiab]
27. kid[tiab] OR kids[tiab] OR boy\*[tiab] OR girl\*[tiab]
28. juvenil\*[tiab]
29. 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19 OR 20 OR 21 OR 22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28
30. 9 AND 29

# Transfer of an Ovid search strategy

---

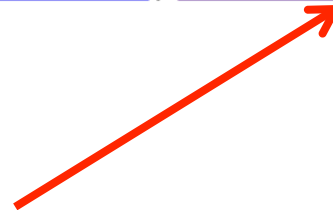
## History Jumpstart

<http://demo.ovid.com/demo/ovidsptools/>

---

Ovid<sup>®</sup>  
[ResourceCenter](#)

More Ovid Tools: [Cochrane](#) | [eTOC Alerts](#) | [Expert Searches](#) | [History Jumpstart](#) | [History Launcher](#) |





# History Jumpstart

Show Instructions

**Database:**  Journals  Books  Other (enter **database code**):  *For multiple search, separate database codes with commas, e.g.: psych,mesz,embz*  
 Ovid MEDLINE

**User name:**  Leave username and password blank to login on IP address.

**Password:**  ID/password can only be included in the URL if the URL will be saved in a secure location.

**OvidSP History  
(max. 20 lines):**

Submit

Clear Form

# History Jumpstart

1. Enter the search manually in OvidSP. Select the first result and click on the 'Export' button:

The screenshot shows the OvidSP interface. The top panel is the 'Search History' window, which contains a table with the following data:

Searches	Results	Search Type	Actions
1 exp Cat's Claw/	78	Advanced	[Icons]
2 exp Neoplasms/	2362738	Advanced	[Icons]
3 1 and 2	13	Advanced	[Icons]

Below the table are buttons for 'Remove Selected', 'Save Selected', 'Combine selections with: And Or', and 'Save Search History'. The bottom panel shows the 'Results Tools' and 'Search Information' sections. The 'Export' button is highlighted with a red box. The first search result is selected and highlighted with a red box:

1. Inhibitory mechanisms of two *Uncaria tomentosa* extracts affecting the Wnt-signaling pathway.

3. Open the export file and copy the search history only (including line numbers and total results for each line in brackets), and paste into the OvidSP History field in this form.

The screenshot shows a text-based export file. The header information is as follows:

Database: Ovid MEDLINE(R) <1946 to July Week 1 2012>  
Search Strategy:

The search history is listed below, with the first three lines circled in red:

```
1 exp Cat's Claw/ (78)
2 exp Neoplasms/ (2362738)
3 1 and 2 (13)
*****
```

2. Choose Microsoft Word or .txt format, and check the 'Include Search' checkbox. Then click on Export Citation(s):

The screenshot shows the 'Export Citation List' dialog box. The 'Export To' dropdown menu is set to '.txt' and is highlighted with a red box. The 'Include Search' checkbox is checked and highlighted with a red box. The 'Export Citation(s)' button is also highlighted with a red box.

4. Select a database, and enter a user name and password if required. user name and password fields blank to access your search results by IP

Enter database codes separated by a comma (no spaces) to set the link multiple databases.(eg. "yrovft,books,pmez")

5. Click on the 'Submit' button. The Search URL will be returned on a new page. Simply bookmark this URL, or set it in your webpage.

# History Jumpstart

Show Instructions

**Database:**  Journals  Books  Other (enter **database code**):  *For multife search, separate database codes with commas, e.g.: psyh,mesz,embz*  
 Ovid MEDLINE

**User name:**  Leave username and password blank to login on IP address.

**Password:**  ID/password can only be included in the URL if the URL will be saved in a secure location.

```
1 exp pesticide/ (275808)
2 exp fertility/ (61014)
3 exp infertility/ (96937)
4 1 and (2 or 3) (2026)
5 limit 4 to human (941)
```

OvidSP History  
(max. 20 lines):

 Submit

Clear Form

# History Jumpstart

Ovid<sup>®</sup>

[ResourceCenter](#)

More Ovid Tools: [Cochrane](#) | [eTOC Alerts](#) | [Expert Searches](#) | [History Jumpstart](#) | [History Launcher](#) |

Here is your URL:

`http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=y&D=oemezd&PAGE=main&NEWS=n&ID=&PASSWORD=&SEARCH=`

To test the above jumpstart URL: [click here](#)



To edit the history, please use the Back button of the browser

[http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=v&D=oemezd&PAGE=main&NEWS=n&ID=&PASSWORD=&SEARCH=exp+pesticide/%0Aexp+fertility/%0Aexp+infertility/%0A1+and+\(2+or+3\)%0Alimit+4+to+human](http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=v&D=oemezd&PAGE=main&NEWS=n&ID=&PASSWORD=&SEARCH=exp+pesticide/%0Aexp+fertility/%0Aexp+infertility/%0A1+and+(2+or+3)%0Alimit+4+to+human)

1	exp pesticide/	275808
2	exp fertility/	61014
3	exp infertility/	96937
4	1 and (2 or 3)	2026
5	<b>limit 4 to human</b>	<b>941</b>

# Analysis of authors, journals, etc.

scroll



1	exp pesticide/	275808
2	exp fertility/	61014
3	exp infertility/	96937
4	1 and (2 or 3)	2026
5	<b>limit 4 to human</b>	<b>941</b>

Filter By

 Add to Search History

---

+ Selected Only ( 0 )

- Years

- All Years
- Current year
- Past 3 years
- Past 5 years

► Specific Year Range

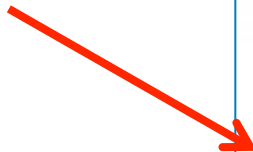
+ Subject

+ Author

+ Journal

+ Book

+ Publication Type



# Analysis of authors, journals, etc.

Highest ranked authors:  
Altshul L. and Chen X.

Filter By

Add to Search History

+ Selected Only ( 0 )

- Years

- All Years
- Current year
- Past 3 years
- Past 5 years
- Specific Year Range

+ Subject

- Author

- All Authors
- Altshul L.**
- Chen X.
- Chen Z.
- Critchley H.O.D.
- Fraser I.S.
- Gerhard I.
- Hauser R.
- Ludwicki J.K.
- Munro M.G.
- Myers J.P.
- More ...

1	exp pesticide/	275808
2	exp fertility/	61014
3	exp infertility/	96937
4	1 and (2 or 3)	2026
5	limit 4 to human	941
6	5 and "Altshul L." [Authors]	5
7	5 and "Chen X." [Authors]	3

# Advantages of Ovid/MEDLINE compared to PubMed

1. Truncation
2. Adjacency
3. Searches like (cancer\* or neoplas\* or tumor\* or tumour\* or ...).ti,ab.kf.
4. Selection of some Narrower Terms of a MeSH Heading
5. Combinations like OR/2-20
6. Self selected combinations of e.g. *therapy* subheadings  
exp Neoplasms/dh,dt,rt,su,th
7. You can search several databases with the same Ovid “language”
8. Ovid has filters for Subject, Author, Journal (kind of frequency analysis)
9. When removing one or more sets from the Search History
  - a warning is given when more sets will be affected
  - sets are “renumbered”
10. Options with set numbers:
  - set 10 = (cancer\* or neoplas\* or tumor\* or tumour\* or ...).ti,ab,kf.
  - 10.ti. → (cancer\* or neoplas\* or tumor\* or tumour\* or ...).ti.
  - set 12 = exp Neoplasms/ec[Economics]
  - \*12 → exp \*Neoplasms/ec

# Advantages of PubMed compared to Ovid/MEDLINE

1. Transfer of a search strategy (to a customer)
2. Mapping to subheadings

In PubMed, *economics* is mapped to:

"**economics**"[Subheading] OR "economics"[All Fields] OR "economics"[MeSH Terms]

In MEDLINE/Ovid, *economics* is mapped to:

Select	Subject Heading
<input type="checkbox"/>	Economics, Hospital
<input type="checkbox"/>	Economics, Pharmaceutical
<input checked="" type="checkbox"/>	Economics
<input type="checkbox"/>	Economics, Behavioral
<input type="checkbox"/>	Economics, Dental
<input type="checkbox"/>	Economics, Medical
<input type="checkbox"/>	Economics, Nursing
<input type="checkbox"/>	economics.mp. search as Keyword

Economics.fs is not included in economics.mp

3. MEDLINE/Ovid does not contain status **PubMed as supplied by publisher**
4. PubMed is free
5. PubMed Help gives nice NLM information, e.g. list and tree of subheadings, strategy of Systematic Review limit
6. Different “branches” in the Tree are all shown on the same MeSH page; in Ovid the (rather unknown) Context button has to be used
7. PubMed contains comments in PubMed Commons. MEDLINE/Ovid does not



# PubMed Commons

Abstract ▾

Send to: ▾

See comment in PubMed Commons below

Am J Nurs. 2014 May;114(5):49-56. doi: 10.1097/01.NAJ.0000446779.99522.f6.

## Constructing a search strategy and searching for evidence. A guide to the literature search for a systematic review.

Aromataris E<sup>1</sup>, Riitano D.

### + Author information

#### Abstract

This article is the third in a new series on the systematic review process. It focuses on evidence-based practice in nursing, medicine, and allied health professions. This article details the review-one step at a time. This article details the PubMed platform (pubmed.gov).

PMID: 24759479 [PubMed - indexed for MEDLINE]

#### PubMed Commons

2 comments

[Edoardo Aromataris](#) 2015 Feb 08 7:48 p.m.

Thank you for your comment Wichor and for pointing this out for re-familiarization with the search platforms used can increase the spe

[Permalink](#) [Share](#)

[Wichor Bramer](#) 2015 Jan 29 5:19 p.m.

I found a rather large error in the search strategy as presented in this article. When creating a complex search strategy it is very important to have them plan to search for P AND (I OR C) AND O, which is a good way to search on page 53 is constructed as (P) AND (I) OR (C) AND (O). PubMed searches but just adds new elements in the order given. Constructed like this but not related to dementia. When using this search strategy in PubMed only 300 articles remain, containing much more relevant references placed correctly. Always fill them in yourself, and don't let PubMed

Unique Identifier	24759479
Status	MEDLINE
Authors	Aromataris E; Riitano D.
Authors Full Name	Aromataris, Edoardo; Riitano, Dagmara.
Institution	Aromataris, Edoardo. Edoardo Aromataris is the director of synthesis science at the Joanna Briggs Institute in the School of Translational Health Science, University of Adelaide, South Australia, where Dagmara Riitano is a research officer. Contact author: Edoardo Aromataris, ed.aromataris@adelaide.edu.au. The authors have disclosed no potential conflicts of interest, financial or otherwise. The Joanna Briggs Institute aims to inform health care decision making globally through the use of research evidence. It has developed innovative methods for appraising and synthesizing evidence; facilitating the transfer of evidence to health systems, health care professionals, and consumers; and creating tools to evaluate the impact of research on outcomes. For more on the institute's approach to weighing the evidence for practice, go to <a href="http://joannabriggs.org/jbi-appr...">http://joannabriggs.org/jbi-appr...</a>
Title	Constructing a search strategy and searching for evidence. A guide to the literature search for a systematic review.
Source	American Journal of Nursing. 114(5):49-56, 2014 May.
Abstract	This article is the third in a new series on the systematic review from the Joanna Briggs Institute, an international collaborative supporting evidence-based practice in nursing, medicine, and allied health fields. The purpose of the series is to show nurses how to conduct a systematic review-one step at a time. This article details the major considerations surrounding search strategies and presents an example of a search using the PubMed platform (pubmed.gov).
Publication Type	Journal Article.
Date Created	20140424
Year of Publication	2014

# Extra

## NLM Announces (weekly e-mail newsletter)

<http://www.nlm.nih.gov/listserv/emaillists.html>

**NIH** U.S. National Library of Medicine

Databases Find, Read, Learn Explore NLM Research at NLM NLM for You

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Through this service, users o  
[and webcasts.](#)

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[NLM-Announces](#)  
Weekly announcement-or

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*Weekly announcement of new NLM Web pages.*

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- [Manage the list](#) (list owners only)

- [April 2015](#)
- [March 2015](#)

# Extra

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From the newsletter (6 May 2015)

[http://www.nlm.nih.gov/bsd/medline\\_lang\\_distr.html](http://www.nlm.nih.gov/bsd/medline_lang_distr.html)

<http://www.nlm.nih.gov/bsd/authors1.html>



# Questions?



Wolters Kluwer  
Health

