

# Electronic Database Search Tips

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# Controlled Vocabulary

# Examples of Controlled Vocabularies

Database	Controlled vocabulary	What you see in the record
PubMed	MeSH	Indexed for Medline
Embase	Emtree	Index terms
Cochrane	MeSH	Medical Subject Headings (MeSH) Keywords
CINAHL	CINAHL headings	Subjects
PsycINFO	Thesaurus	Subjects

# Controlled Vocabulary Features

- Explode term
- Do Not Explode Term
- Major Topic
- Subheadings
- Search Builder Tool

# Controlled Vocabulary Features

	PubMed	Embase	Cinahl
Explode	"Wounds and Injuries"[Mesh]	'injury'/exp	(MH "Wounds and Injuries+")
Do Not Explode	"Wounds and Injuries"[Mesh:NoExp]	'injury'/de	(MH "Wounds and Injuries")
Major Topic	"Wounds and Injuries"[Majr]	'injury'/mj	(MM "Wounds and Injuries")

# Search Example:

*bicycle helmets to reduce injuries in children*

PubMed

Embase

Cochrane

Ebsco database (Cinahl or PsycINFO)

# Limits & Filters

# Limits vs. Filters

- Limits

- Pre-set limits in databases (even if called filters)
- Subject limits such as "Article types," "Humans," and "Ages" will limit the search to controlled vocabulary terms only
- Risk of missing relevant citations, especially the most recent

- Filters

- Also known as "search hedges"
- Are pre-developed search strategies typically developed for topics and study types
- Use validated filters that have been tested for reliability and accuracy
- Cite any filters you use or modify
- The InterTASC Information Specialists' Sub-Group Search Filter Resource:  
<https://sites.google.com/a/york.ac.uk/issg-search-filters-resource/what-is-the-issg-search-filter-resource>



# Animal Filter

- PubMed

(animals [mh] NOT humans [mh])

Example

#1 Concept 1

#2 Concept 2

#3 #1 AND #2

#4 (animals[mh] NOT humans[mh])

#5 #3 NOT #4

- Embase

('animal'/exp NOT 'human'/exp)

Example

#1 Concept 1

#2 Concept 2

#3 #1 AND #2

#4 ('animal'/exp NOT 'human'/exp)

#5 #3 NOT #4

Search Example:  
Animal Filter vs. Human Limit

*Arsenic exposure in children*

PubMed

Embase

Ebsco database (Cinahl or PsycINFO)

# Field Tags & Adjacency Operators



# Field Tags

	Syntax	Phrase Truncation
PubMed	Injury[tiab] Injury[tw] OR wound[tw]	Head injur*[tiab]
Embase	Injury:ab,ti (injury OR wound):ab,ti,kw	“Head injur*”:ab,ti,kw
Cochrane	Injury:ab,ti (injury OR wound):ab,ti,kw	“head injury”:ab,ti,kw
CINAHL/PsycINFO (Ebsco)	TI(injury) OR AB(injury) TI (injury OR wound) OR AB (injury OR wound)	TI (“head injur*”) OR AB (“head injur*”)

# Adjacency Operators

	Adjacency	Adjacency	Adjacency with Field Tags
PubMed	N/A	N/A	N/A
Embase	NEAR - in either direction	(head NEAR/3 injur*)	(head NEAR/3 injur*):ab,ti
Cochrane	NEXT - in the order specified	(head NEXT/3 injur*)	(head NEXT/3 injur*):ab,ti
CINAHL/PsycINFO (Ebsco)	N - in either direction W - in the order specified	(head N3 injur*) (head W3 injur*)	TI (head N3 injur*) TI (head W3 injur*)

# Search Example

PubMed

Embase

Cochrane

Ebsco database (Cinahl or PsycINFO)

# Help Guides

- PubMed
  - Located on home page under “Using PubMed”
  - FAQ: <https://www.ncbi.nlm.nih.gov/books/NBK3827/#pubmedhelp.FAQs>
- Embase
  - Located in top left corner (question mark icon)
  - <https://service.elsevier.com/app/home/supporthub/embase/>
- Cochrane
  - Search help box
  - <https://www.cochranelibrary.com/advanced-search/search-manager>
- Cinahl/PsycINFO (Ebsco)
  - Located beneath the “search command” (question mark icon)
  - <http://support.ebsco.com/help/>

# Welch Informationists

<http://welch.jhmi.edu/welchone/Find-Your-Informationist>

The screenshot shows the Welch Medical Library website. At the top left is the logo, a compass rose with a yellow bell in the center, and the text "Welch Medical Library" and "Serving the faculty, students & staff of the Johns Hopkins Medical Institutions". To the right is a search bar with "Search for..." and a "Go" button. Below the search bar are contact details: "410-955-3410" and "Building Hours Today: 9am - 6pm". A navigation menu includes "Resources", "Subjects", "Services", "Search", "How To", and "About Welch".

The main content area is titled "Find Your Informationist" and features a dropdown menu for "select your department or affiliation" with a "Not sure?" link. Below this is a section for "Informationists" with a paragraph explaining their availability and a link to "Informationist Services for Selected User Groups". A grid of informationist profiles is displayed, including Blair Anton, Jaime Blanck, Peggy Gross, Donna Hesson, Young-Joo Lee, Katie Lobner, Julie Nanavati, Carrie Price, Lori Rosman, Stella Seal, Maria Truskey, Claire Twose, and Rob Wright.

On the right side, there is a "Your Informationist" section featuring a profile for Jaime Blanck, including her photo, a QR code, and contact information: "Email: jblanck1@jhmi.edu" and "Phone: 410-955-7269". Below this is a grid of other informationist photos.

At the bottom right, there is an "Information Desk" section with a "Ask Welch Instant Chat" button labeled "ONLINE click to chat", a "Call 410-955-3410" link, and an "Email Us" link.



# Controlled Vocabulary vs Keyword Terms

## Controlled Vocabulary

- Pre-selected, discipline-specific terms unique to each database
- Applied by indexers to represent the principal concepts in articles
- Hierarchically structured
- Indexed with most specific term available
- PubMed: 1946 - present

## Keyword

- User-selected, no limitations
- Searches entire citation and sometimes full-text
- Keyword simply needs to appear in citation, regardless of importance to article's key concepts
- Use to retrieve citations not yet indexed or mis-indexed

# PubMed Example: Indexed for Medline

NCBI Resources How To

PubMed.gov  
US National Library of Medicine  
National Institutes of Health

PubMed  Search

Create RSS Create alert Advanced

Format: Abstract Send to

J Pain Palliat Care Pharmacother. 2015 Mar;29(1):48-50. doi: 10.3109/15360288.2014.997850. Epub 2015 Jan 5.

**Chronic opioid pain management for chronic kidney disease.**

Nagar VR, Birthi P.

**Abstract**  
Questions from patients about pain conditions, pain treatment, and responses from authors are presented to help educate patients and make them effective self-advocates. The topics addressed in this issue are renal or kidney failure and chronic pain management with opioids, morphine, and oxycodone effect in the body over a period of time. This includes process of absorption, distribution, localization in tissues, biotransformation and excretion in chronic kidney disease, expected side effects and recommendations.

**KEYWORDS:** chronic; dialysis; kidney disease; nephropathy; opioid

PMID: 25558925 DOI: 10.3109/15360288.2014.997850  
[Indexed for MEDLINE]

MeSH terms, Substance +

# View MeSH terms to see indexing

The image shows a screenshot of a PubMed search result. At the top, the NCBI logo and navigation links 'Resources' and 'How To' are visible. The search bar contains the text 'Chronic opioid pain management for chronic kidney disease' and a 'Search' button. Below the search bar, the format is set to 'Abstract'. The article title is 'Chronic opioid pain management for chronic kidney disease.' by Nagar VR, Birthi P. The abstract text is partially visible. A red arrow points from the 'MeSH terms, Substance' link at the bottom of the article to a callout box on the right. The callout box lists the following MeSH terms and Substance: **MeSH terms, Substance**, **MeSH terms**, Analgesics, Opioid/adverse effects, Analgesics, Opioid/pharmacokinetics, Analgesics, Opioid/therapeutic use\*, Chronic Pain/drug therapy\*, Humans, Renal Insufficiency, Chronic/complications\*, Renal Insufficiency, Chronic/therapy, **Substance**, Analgesics, Opioid. The 'MeSH terms, Substance' link at the bottom of the article is circled in red.

NCBI Resources How To

PubMed.gov  
US National Library of Medicine  
National Institutes of Health

PubMed  Search

Create RSS Create alert Advanced

Format: Abstract

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[Indexed for MEDLINE]

**MeSH terms, Substance** +

**MeSH terms, Substance**

**MeSH terms**

Analgesics, Opioid/adverse effects

Analgesics, Opioid/pharmacokinetics

Analgesics, Opioid/therapeutic use\*

Chronic Pain/drug therapy\*

Humans

Renal Insufficiency, Chronic/complications\*

Renal Insufficiency, Chronic/therapy

**Substance**

Analgesics, Opioid