



# PUBMED

Biomedical / health science  
citations database

Taipei Medical University



**PAUSE**

Try to think about some questions.



## 《Clinical scenario》

A 45-year-old male with type 2 diabetes seeks evidence-based dietary recommendations to improve blood glucose control despite medication use.

**1**

Where should I start?

**2**

What search term should I use?

**3**

How can I make my search result more precise?

# Learning goals



1

**Familiar with Pubmed interface**

2

**Know how to access full text articles**

3

**Understand the recommended search steps**

4

**Learn about Medical Subject Headings (MeSH)**

5

**Identify the scope of actual searches in PubMed from search details**

6

**Master Pubmed search skill**

# About Pubmed

Pubmed is a free resource for searching and retrieving biomedical and life sciences citations.



## Background info

- Hosted by National Library of Medicine.
- It contains more than 39 million citations and abstracts of biomedical literature.



## Features

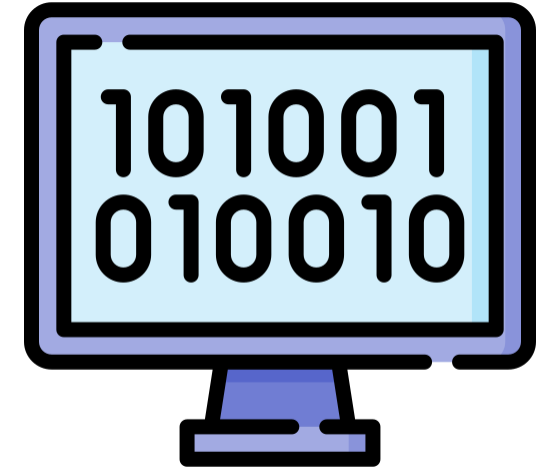
Most of the citations are applied by MeSH (about 85%, these citations must be indexed in Medline).



## Reminder

No full text.

# What are PubMed's citation sources?



1

## Medline

- No full text
- Contributes 85% of Pubmed citations
- All citations come with MeSH Terms

2

## Pubmed Central (PMC)

- Full text available
- No MeSH terms
- Deposits free/OA research articles, government-funded research and conference papers, etc.

3

## Bookshelf

- Full text available
- No MeSH terms
- Archives biomedical textbooks, research reports funded by NIH, guidelines and protocols, etc.

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# Homepage

NIH U.S. National Library of Medicine  
National Center for Biotechnology Information

Log in

PubMed.gov

1 Search PubMed Search

Advanced

PubMed® comprises more than 30 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.

① Basic search

② Online tutorial

③ Search tools

④ Mesh database


⑤ Latest literature

2  **Learn**

- About PubMed
- FAQs & User Guide
- Finding Full Text

3  **Find**

- Advanced Search
- Clinical Queries
- Single Citation Matcher

 **Download**

- E-utilities API
- FTP
- Batch Citation Matcher

4  **Explore**

- MeSH Database
- Journals

## Trending Articles

PubMed records with recent increases in activity

5 [Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus-Infected Pneumonia in Wuhan, China](#)  
JAMA. 2020.

## Latest Literature

New articles from highly accessed journals

[Am J Clin Nutr](#) (1)  
[Drugs](#) (2)

# Result page

PubMed.gov

replacement therapy liver 6 × Search

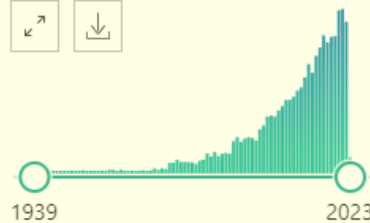
Advanced Create alert Create RSS User Guide

7 Save Email Send to 8 Sorted by: Best match Display options ⚙️

MY NCBI FILTERS 🔗

5,377 results ⏪ < Page 1 of 538 > ⏩

9 RESULTS BY YEAR ↕ ⏴ ⏵



1939 2023

TEXT AVAILABILITY

- Abstract
- Free full text
- Full text

10  **Leptin treatment: facts and expectations.**

1 Paz-Filho G, Mastronardi CA, Licinio J.  
Cite Metabolism. 2015 Jan;64(1):146-56. doi: 10.1016/j.metabol.2014.07.014. Epub 2014 Aug 3.  
PMID: 25156686 **Free article.** Review.

Share Leptin levels are undetectable or very low in patients with lipodystrophy, hypothalamic amenorrhea, and congenital leptin deficiency (CLD) due to mutations in the leptin gene. For these patients, leptin **replacement therapy** with metreleptin (a recombinant leptin anal ...

**Testosterone and obesity.**

2 Kelly DM, Jones TH.  
Cite Obes Rev. 2015 Jul;16(7):581-606. doi: 10.1111/obr.12282. Epub 2015 May 15.  
PMID: 25982085 Review.

Share Testosterone is a key **hormone** in the pathology of metabolic diseases such as obesity. Low testosterone levels are associated with increased fat mass (particularly central adiposity) and reduced lean mass in GHD was significantly higher than in controls (11 vs 12%, ...

5,377 results Show more results

11 Searches related to "replacement therapy liver"

renal replacement therapy liver renal replacement therapy liver transplantat

↑ Back to Top

⑥ Search box

⑦ Save or export citation

⑧ Display options

⑨ Filters

⑩ Result list

⑪ Related search term

# Advanced

## PubMed Advanced Search Builder

Add terms to the query box

12

All Fields



Enter a search term

AND



Show Index

Query box

13

novel coronavirus



Search



## History and Search Details

Download Delete

14

Search	Actions	Details	Query	Results	Time
#2	...	▼	Search: <b>novel coronavirus</b> (("novel"[All Fields] OR "novel s"[All Fields]) OR "novels"[All Fields]) AND (("coronavirus"[MeSH Terms] OR "coronavirus"[All Fields]) OR "coronaviruses"[All Fields])  <b>Translations</b> <b>novel:</b> "novel"[All Fields] OR "novel's"[All Fields] OR "novels"[All Fields] <b>coronavirus:</b> "coronavirus"[MeSH Terms] OR "coronavirus"[All Fields] OR "coronaviruses"[All Fields]	2,134	07:36:15

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# Get Full text - 1



## Free full text articles

- The article is published under the Open Access model.
- You can download the full text from anywhere.



## Journals/databases subscribed by the library

- You can access it through the TMU network.
- When you're off-campus, be sure to use the TMU Library's website/system to access the journal and database.



## Non-free journals & not subscribed by the library

- No permission to obtain the full text.
- You can try to request the full text from other libraries. Check our Rapid ILL service <https://reurl.cc/nZevoe>

# TMULs Full Text Finder



- Access Pubmed from the library website or system.
- There are 2 statuses of the result (as right side).

## 1 Can get full text

Click on any of the link lists on the page. This takes you to the journal website or database.

### Full Text Finder Results

Resources Located for this Citation



[Check for full text at the publisher's site.](#)



[Find this article in full text from EBSCOhost SmartLinks+](#)

## 2 Cannot get full text

You can try to request the full text from other libraries by clicking on the link lists on the page.

### Full Text Finder Results

Resources Located for this Citation

[TMU - Rapid ILL | Only for western journal articles \(Free\)](#)



[TMU - NDDS | Apply for journal, book, meeting, thesis, report \(Charge\)](#)

# Learning goals



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# Recommended Search Workflow



1

**Define your research topic**

Using PICO to figure out the topics on your question.

2

**Identify search terms**

Think about the search terms you may use.  
(Subject Heading is an useful tool.)

3

**Run the search**

Search your topics or keywords separately. Don't forget to review the search details.

4

**Combine search strategy**

Using Boolean logic combine each search strategy.

5

**Filter results**

Using filters or maybe display option to pick up some results.



Medline, Embase, Cochrane Library, CINAHL all provide Subject Heading

# Use PICO to figure out the topics on your question



## Patient, Problem, Population

Who is your patient?

- Age, sex, race or patient
- Primary problem
- Health status



## C = Comparation

What alternative are you considering?

- Another test, medication or procedure
- Watchful waiting



## I = Intervention

What do you plan on doing for the patient?

- Diagnostic test
- Medication
- Procedure



## O = Outcome

What do wish to accomplish?

- Accurate diagnosis
- Relieve or improve symptoms
- Maintain function

# PICO Sample



Can fish oil prevent cardiovascular disease among healthy adults?

<b>P</b> (patient)	<b>I</b> (intervention)	<b>C</b> (comparison)	<b>O</b> (outcome)
Healthy adult	Fish oil	No fish oil placebo	Cardiovascular disease

**Limits:**

such as 'systematic review', 'meta analysis', 'randomized controlled trial (RCT)'



# Can I use Gen-AI to assist in breaking down PICO?

Ans: Sure, but there are several key factors to consider when using Gen-AI to break down PICO.



1. Gen-AI responses may vary each time.
2. AI-generated responses should be verified for accuracy.
3. Be cautious of AI hallucinations.



Make sure to verify:

- a) Does the suggested MeSH term exist?
- b) Is the MeSH term appropriate for your research?
- c) Are the suggested keywords relevant?
- d) Are there additional useful keywords?



# Can I use Gen-AI to assist in breaking down PICO?

Ans: Sure, but there are several key factors to consider when using Gen-AI to break down PICO.

PICO Element	Description	(using ChatGPT 5.2)
P (Population)	Healthy adults / general adult population	
I (Intervention)	Fish oil or omega-3 fatty acid supplementation	
C (Comparison)	Placebo, no supplementation, or usual diet	
O (Outcome)	Prevention or incidence of cardiovascular disease (e.g., myocardial infarction, stroke, coronary heart disease)	

# List your keywords and MeSH terms

	<b>P</b>	<b>I</b>	<b>C</b>	<b>O</b>
<b>Keywords</b>	adult	fish oil	--	cardiovascular disease CVD
<b>MeSH terms</b>	adult	fish oil	--	cardiovascular disease
<b>Limits</b>	systematic review, meta analysis, randomized controlled trial (RCT)			

\*For demonstration only

# Learning goals



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**Do you remember what people used to call it before WHO decided on the term “COVID-19”?**

## **Synonyms and terms with related concept**



- COVID 19
- 2019-nCoV Infection
- SARS-CoV-2 Infection
- 2019 Novel Coronavirus Disease
- 2019 Novel Coronavirus Infection



- Coronavirus Disease 2019
- Severe Acute Respiratory Syndrome Coronavirus 2 Infection
- SARS Coronavirus 2 Infection
- 2019-nCoV Disease

# About MeSH

.....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....

## Where can you use MeSH??

Medline, Pubmed, Cochrane Library

.....  
 .....  
 .....  
 .....



## What is MeSH??

Medical Subject Headings (MeSH) is a hierarchical, tree-like structure that combines from broader to narrower concepts. Each term represents a specific subject category.



## Who produces the MESH??

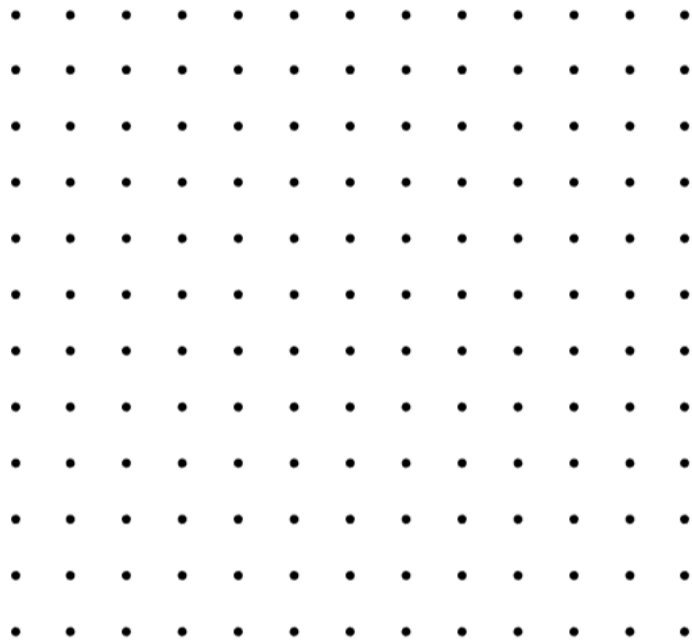
MeSH is maintained by the National Library of Medicine (NLM). It is updated annually to reflect changes in medicine and medical terminology.



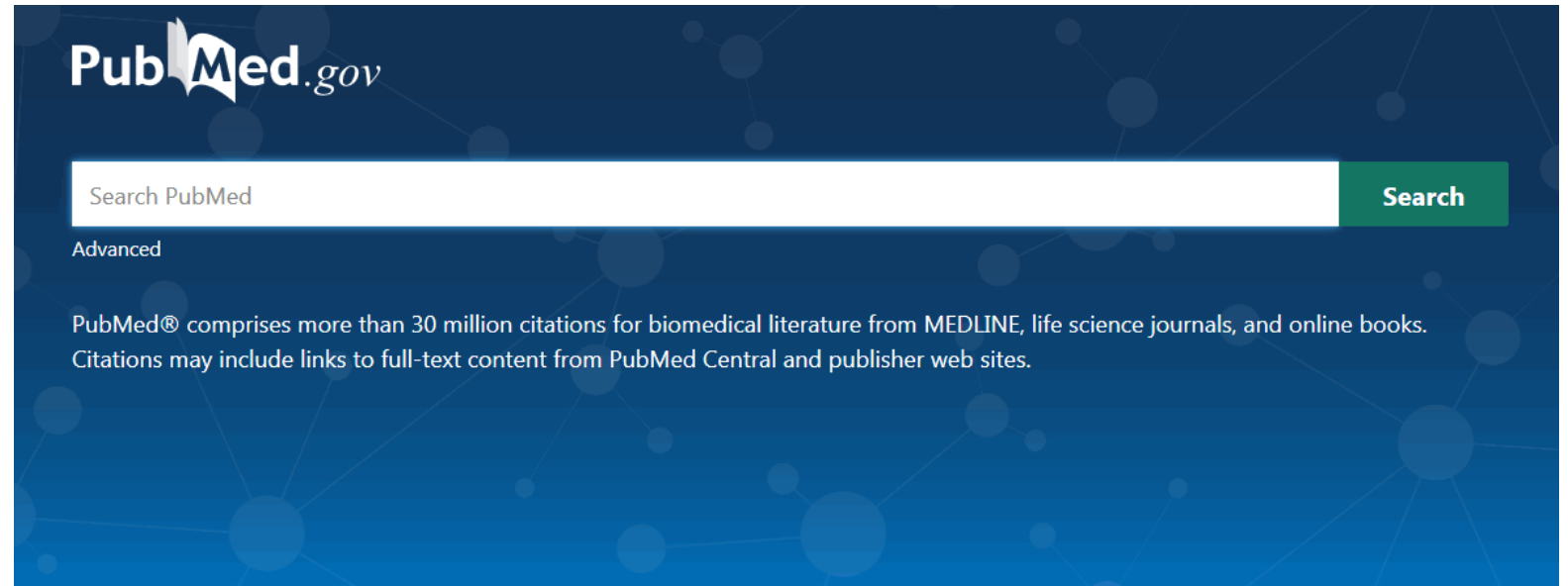
## Other information

- MeSH contains approximately 30,000 .

# Go to the MeSH Database



<https://www.ncbi.nlm.nih.gov/mesh/>



## Learn

About PubMed  
FAQs & User Guide  
Finding Full Text



## Find

Advanced Search  
Clinical Queries  
Single Citation Matcher



## Download

E-utilities API  
FTP  
Batch Citation Matcher

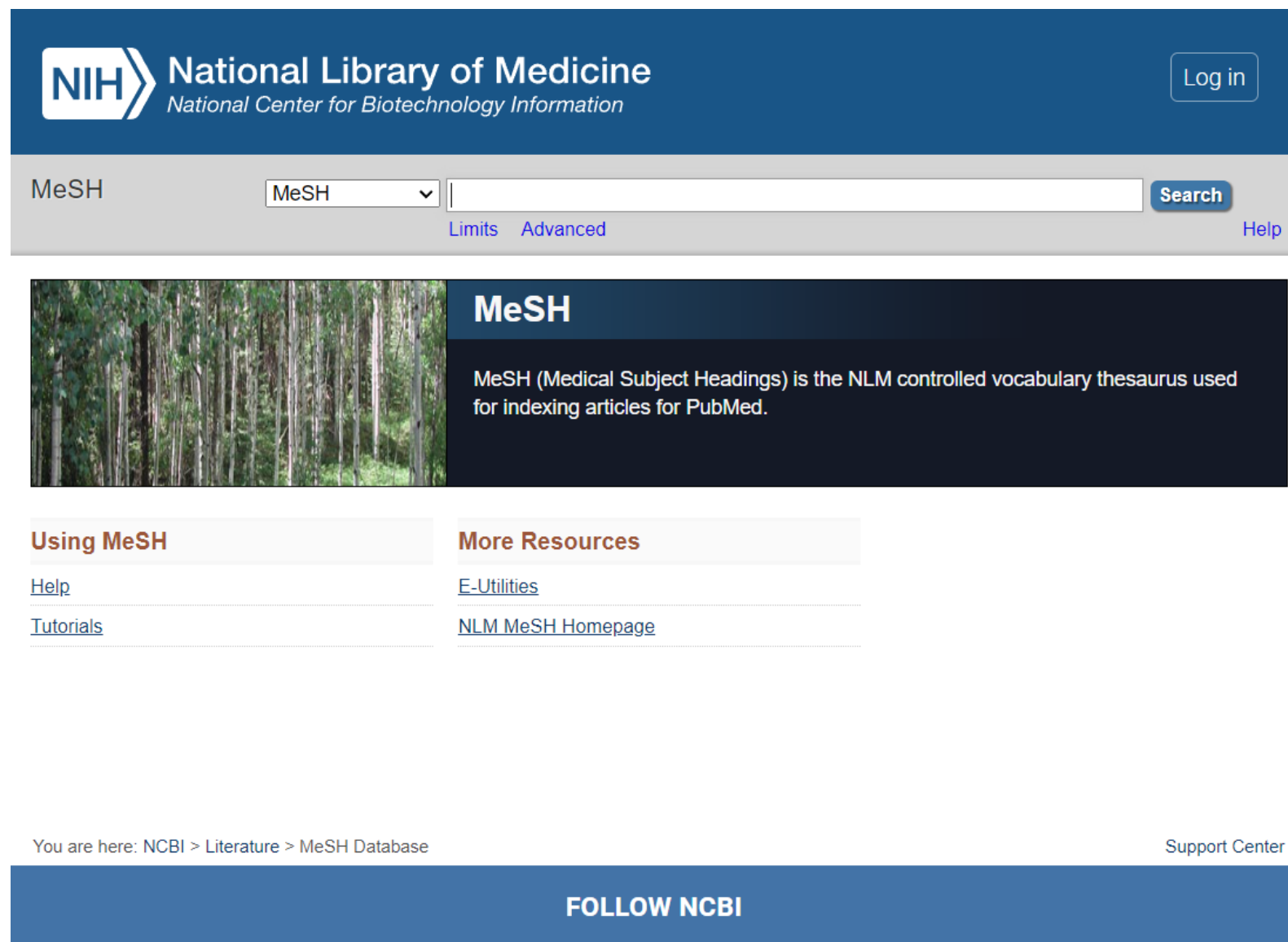


## Explore

MeSH Database  
Journals



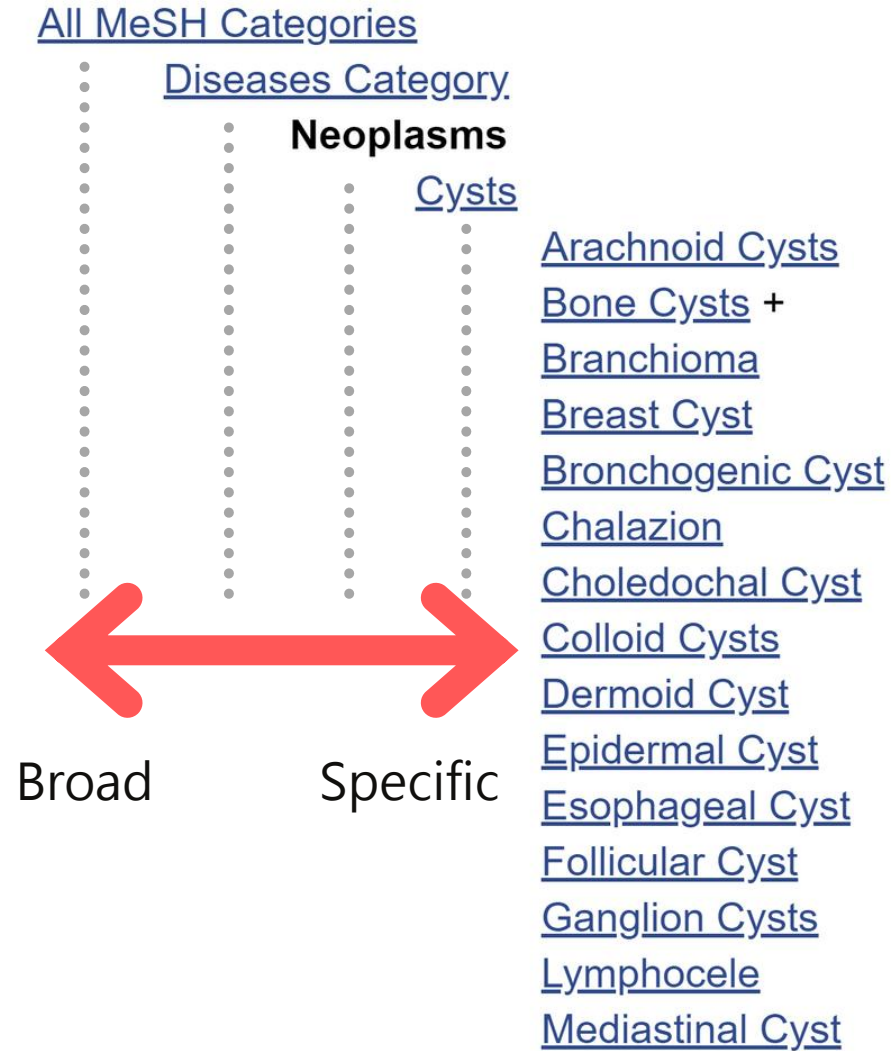
# MeSH database: homepage



The screenshot shows the MeSH database homepage. At the top, there is a dark blue header with the NIH logo and the text "National Library of Medicine National Center for Biotechnology Information". A "Log in" button is in the top right. Below the header is a search bar with "MeSH" selected in a dropdown menu, a search input field, and a "Search" button. Links for "Limits", "Advanced", and "Help" are also present. A main content area features a photograph of a forest and a dark blue box with the text: "MeSH (Medical Subject Headings) is the NLM controlled vocabulary thesaurus used for indexing articles for PubMed." Below this are two columns of links: "Using MeSH" with links for "Help" and "Tutorials"; and "More Resources" with links for "E-Utilities" and "NLM MeSH Homepage". At the bottom, a breadcrumb trail reads "You are here: NCBI > Literature > MeSH Database" and a "Support Center" link is on the right. A dark blue footer contains the text "FOLLOW NCBI".

# Hierarchy structure

\*Take "Cancer" for example



# Relationship between terminologies

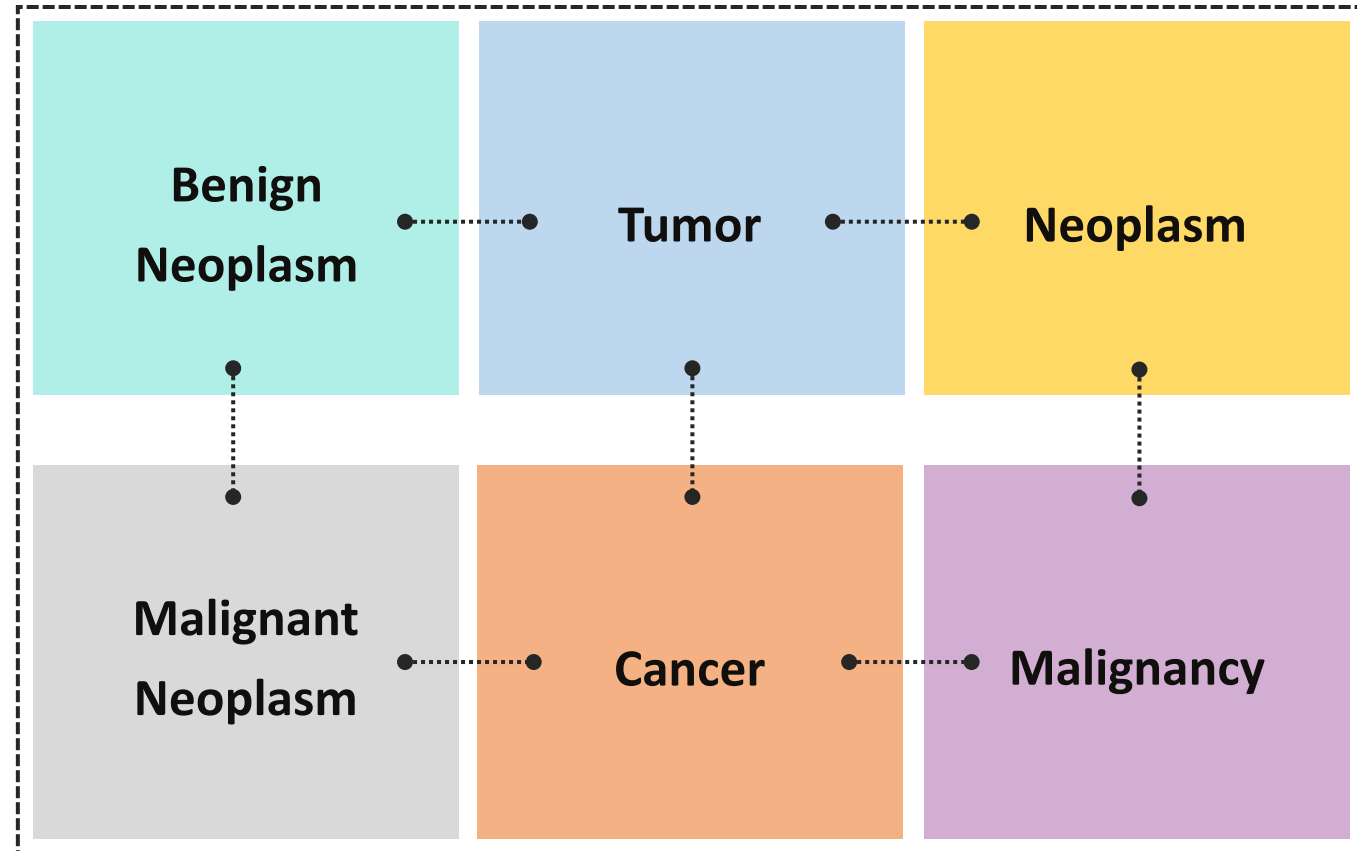
\*Take “Cancer” for example

- Subject Headings links related concepts and synonyms.
- Different subject headings have different coverage. Ex. CINAHL Heading, Mesh, Emtree

Using “Cancer” as a search term in MeSH database



It actually contains the following terminologies.



# MeSH Database

- ① Definition
- ② Subheadings
- ③ Additional limit:
  - Ⓐ Major Topic
  - Ⓑ Not below term

## Neoplasms

1

New abnormal growth of tissue. Malignant neoplasms show a greater degree of anaplasia and have the properties of invasion and metastasis, compared to benign neoplasms.

Year introduced: /diagnosis was NEOPLASM DIAGNOSIS 1964-1965

PubMed search builder options

[Subheadings:](#)

2

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> abnormalities              | <input type="checkbox"/> education                       | <input type="checkbox"/> pathology                     |
| <input type="checkbox"/> administration and dosage  | <input type="checkbox"/> embryology                      | <input type="checkbox"/> pharmacology                  |
| <input type="checkbox"/> analysis                   | <input type="checkbox"/> enzymology                      | <input type="checkbox"/> physiology                    |
| <input type="checkbox"/> anatomy and histology      | <input type="checkbox"/> epidemiology                    | <input type="checkbox"/> physiopathology               |
| <input type="checkbox"/> antagonists and inhibitors | <input type="checkbox"/> ethnology                       | <input type="checkbox"/> prevention and control        |
| <input type="checkbox"/> biosynthesis               | <input type="checkbox"/> etiology                        | <input type="checkbox"/> psychology                    |
| <input type="checkbox"/> blood                      | <input type="checkbox"/> genetics                        | <input type="checkbox"/> radiation effects             |
| <input type="checkbox"/> blood supply               | <input type="checkbox"/> growth and development          | <input type="checkbox"/> radiotherapy                  |
| <input type="checkbox"/> cerebrospinal fluid        | <input type="checkbox"/> history                         | <input type="checkbox"/> rehabilitation                |
| <input type="checkbox"/> chemical synthesis         | <input type="checkbox"/> immunology                      | <input type="checkbox"/> secondary                     |
| <input type="checkbox"/> chemically induced         | <input type="checkbox"/> injuries                        | <input type="checkbox"/> statistics and numerical data |
| <input type="checkbox"/> chemistry                  | <input type="checkbox"/> innervation                     | <input type="checkbox"/> supply and distribution       |
| <input type="checkbox"/> classification             | <input type="checkbox"/> isolation and purification      | <input type="checkbox"/> surgery                       |
| <input type="checkbox"/> complications              | <input type="checkbox"/> legislation and jurisprudence   | <input type="checkbox"/> therapeutic use               |
| <input type="checkbox"/> congenital                 | <input type="checkbox"/> metabolism                      | <input type="checkbox"/> therapy                       |
| <input type="checkbox"/> cytology                   | <input type="checkbox"/> microbiology                    | <input type="checkbox"/> transmission                  |
| <input type="checkbox"/> diagnosis                  | <input type="checkbox"/> mortality                       | <input type="checkbox"/> transplantation               |
| <input type="checkbox"/> diagnostic imaging         | <input type="checkbox"/> nursing                         | <input type="checkbox"/> ultrastructure                |
| <input type="checkbox"/> diet therapy               | <input type="checkbox"/> organization and administration | <input type="checkbox"/> urine                         |
| <input type="checkbox"/> drug effects               | <input type="checkbox"/> parasitology                    | <input type="checkbox"/> veterinary                    |
| <input type="checkbox"/> drug therapy               | <input type="checkbox"/> pathogenicity                   | <input type="checkbox"/> virology                      |
| <input type="checkbox"/> economics                  |  |  |

27

3

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

# MeSH Database

④ Synonyms and related terms

⑤ Hierarchy structure

Tree Number(s): C04  
MeSH Unique ID: D009369

4

Entry Terms:

- Neoplasia
- Neoplasias
- Neoplasm
- Tumors
- Tumor
- Cancer
- Cancers
- Malignancy
- Malignancies
- Malignant Neoplasms
- Malignant Neoplasm
- Neoplasm, Malignant
- Neoplasms, Malignant
- Benign Neoplasms
- Neoplasms, Benign
- Benign Neoplasm
- Neoplasm, Benign

28

5

All MeSH Categories

Diseases Category

**Neoplasms**

Cysts

Arachnoid Cysts

Bone Cysts +



+ means there are more narrower terms under this entry.

Branchioma

Breast Cyst

28



# Is it enough if you only search by using MeSH?

**Of Course NOT!!**

Because...

- 1) There are 85% of citations contain MeSH information in Pubmed.
- 2) You cannot find out the latest articles uploaded into Pubmed. >> without MeSH at present
- 3) You cannot find the articles are in process. >> without MeSH at present
- 4) You may not find a Mesh term that meets your topic.

You have to search with KEYWORDS (natural language) to try to find more related articles.

Define your research topic **1**
**Identify search terms** **2**

 Run the search **3**

 Combine results **4**

 Apply filters **5**

# Use AI to find potential search terms

PICO Element	Concept	Emtree Terms (Controlled Vocabulary)	Keywords (Title/Abstract) (using ChatGPT-5.2)
<b>P – Population</b>	Healthy adults / general adult population	'adult'/exp; 'healthy subject'; 'general population'; 'middle aged'/exp	adult*, healthy adult*, healthy population, general population, asymptomatic adult*, community-dwelling adult*, men, women
<b>I – Intervention</b>	Fish oil / omega-3 fatty acids	'fish oil'/exp; 'omega 3 fatty acid'/exp; 'eicosapentaenoic acid'/exp; 'docosahexaenoic acid'/exp; 'polyunsaturated fatty acid'/exp; 'dietary supplement'/exp	fish oil, omega-3 fatty acid*, omega 3 fatty acid*, n-3 fatty acid*, n3 fatty acid*, PUFA*, marine oil, EPA, DHA, eicosapentaenoic acid, docosahexaenoic acid, fish oil supplement*, omega-3 supplement*
<b>C – Comparison</b>	Placebo / no supplementation / usual care	'placebo'/exp; 'control group'; 'standard care'; 'diet therapy'/exp	placebo, control*, no supplementation, usual care, standard diet, no treatment
<b>O – Outcome</b>	Cardiovascular disease prevention	'cardiovascular disease'/exp; 'heart disease'/exp; 'coronary heart disease'/exp; 'coronary artery disease'/exp; 'myocardial infarction'/exp; 'stroke'/exp; 'cerebrovascular disease'/exp; 'cardiovascular mortality'/exp; 'major adverse cardiovascular event'	cardiovascular disease*, CVD, heart disease*, coronary heart disease, coronary artery disease, ischemic heart disease, myocardial infarction, stroke, cerebrovascular disease, cardiovascular event*, cardiac event*, major adverse cardiovascular event*, MACE, cardiovascular mortality



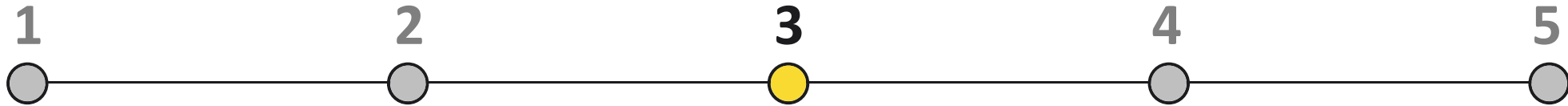
**Q: Are the highlighted terms appropriate to include in the search strategy?**

# List keywords and MeSH terms (including AI suggestions)

	<b>P</b>	<b>I</b>	<b>C</b>	<b>O</b>
<b>Keywords</b>	adult	fish oil omega-3	--	cardiovascular disease CVD
<b>MeSH terms</b>	adult	fish oil omega 3 fatty acid	--	cardiovascular disease
<b>Limits</b>	systematic review, meta analysis, randomized controlled trial (RCT)			

\*For demonstration only

# Recommended Search Workflow



## 1 Define your research topic

Use PICO to figure out the topics on your question.

## 2 Identify search terms

Think about the search terms or keywords you may use.  
(Subject Heading is an useful tool. )

## 3 Run the search

- Search your topics or keywords separately.
- Don't forget to review the search details.

## 4 Combine search strategy

Use Boolean logic combine each search strategy.

## 5 Filter results

Use filters or add limitations to get more precise results.

# To get more relevant results, which keyword will you adjust first?



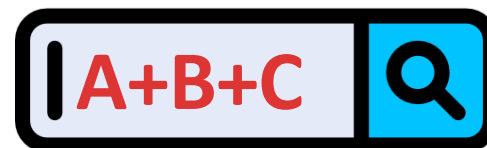
1,000 citations



5,000 citations

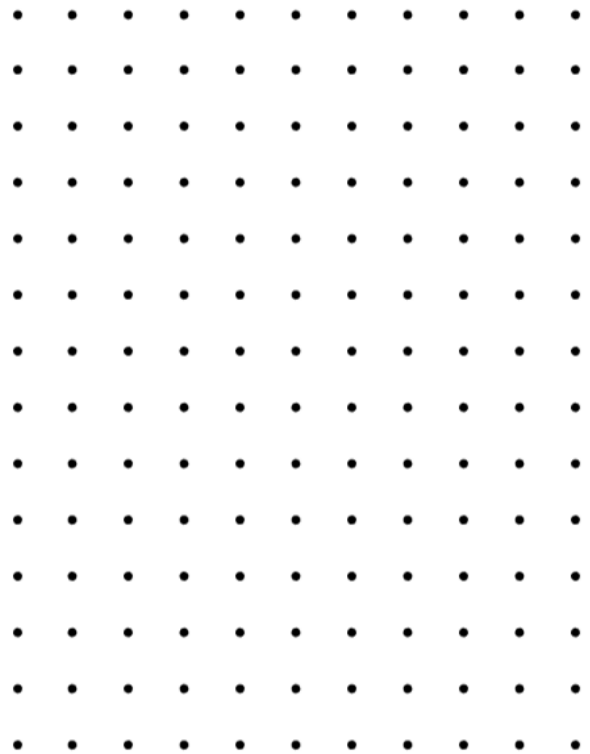


200 citations

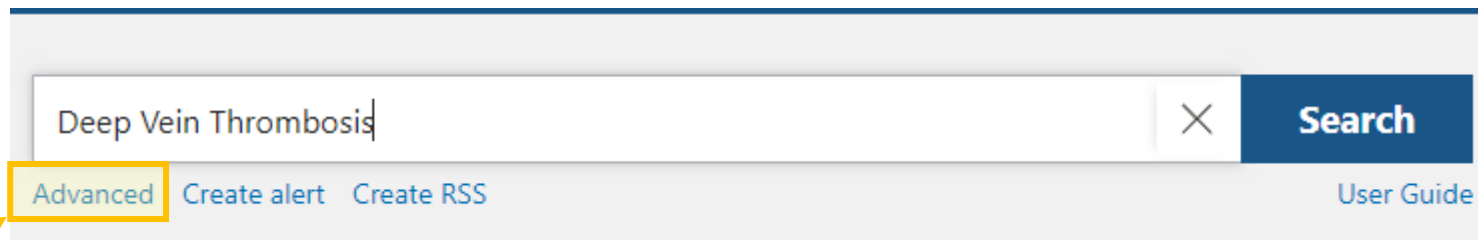


25 citations

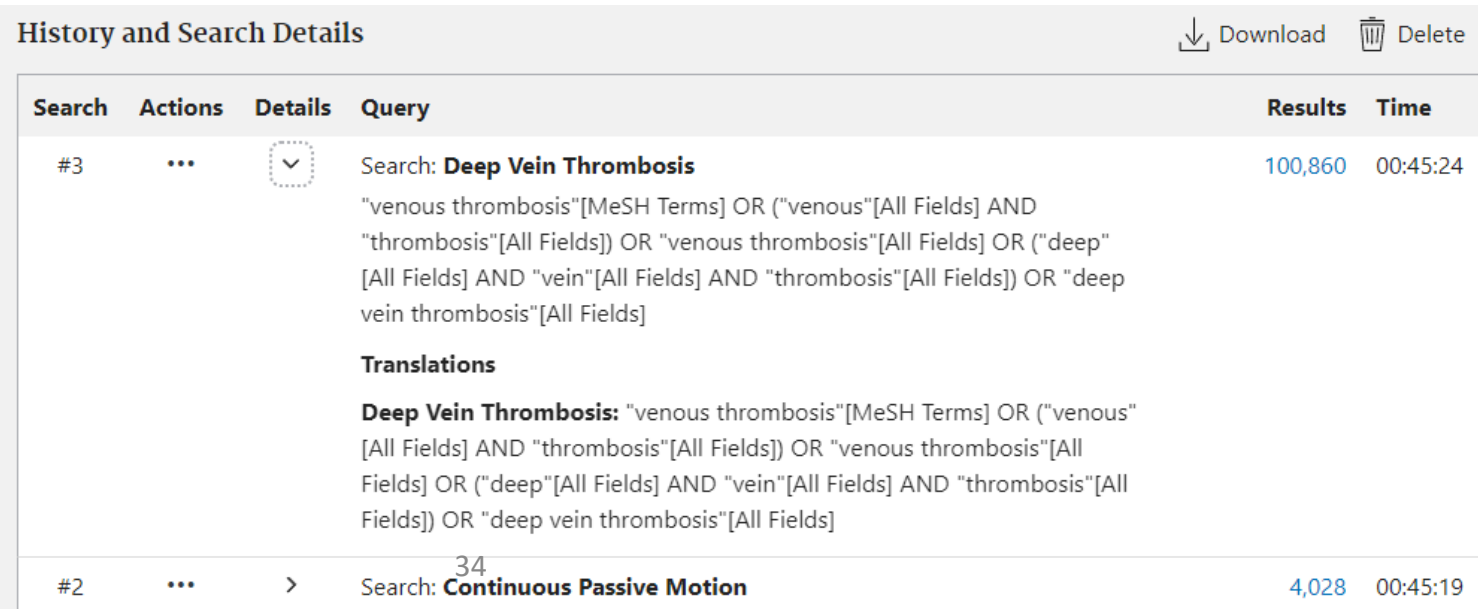
# Combine Search Strategy



**1** Click "Advanced" below the search box



**2** Go to the "History and Search Details" section



Define your research topic **1**

Identify search terms **2**

Run the search **3**

Combine results **4**

Apply filters **5**

# Combine Search Strategy

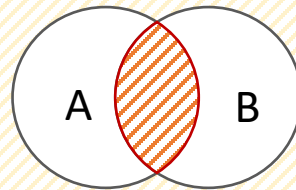
**3** Click the "Actions" to use AND or OR or NOT

History and Search Details Download Delete

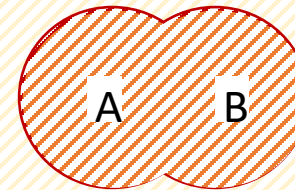
Search	Actions	Details	Query	Results	Time
#3	⋮	⌵	Search: <b>Deep Vein Thrombosis</b> "venous thrombosis"[MeSH Terms] OR ("venous"[All Fields] AND "thrombosis"[All Fields]) OR "venous thrombosis"[All Fields] OR ("deep"[All Fields] AND "vein"[All Fields] AND "thrombosis"[All Fields]) OR "deep vein thrombosis"[All Fields] <b>Translations</b> <b>Deep Vein Thrombosis:</b> "venous thrombosis"[MeSH Terms] OR ("venous"[All Fields] AND "thrombosis"[All Fields]) OR "venous thrombosis"[All Fields] OR ("deep"[All Fields] AND "vein"[All Fields] AND "thrombosis"[All Fields]) OR "deep vein thrombosis"[All Fields]	100,860	00:45:24
#2	⋮	>	Search: <b>Continuous Passive Motion</b>	4,028	00:45:19



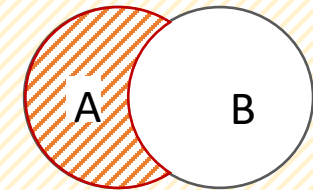
→ Boolean logic



A AND B

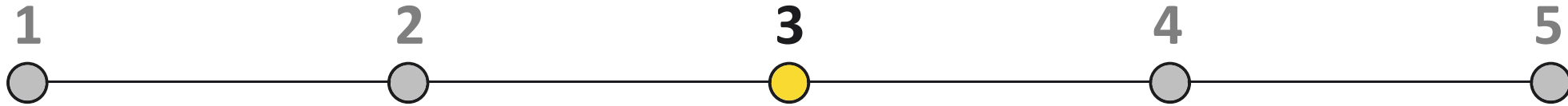


A OR B



A NOT B

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## 2 Identify search terms

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Use Boolean logic combine each search strategy.

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Understand the recommended search steps

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Learn about Medical Subject Headings (MeSH)

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**Identify the scope of actual searches in PubMed from search details**

6

Master Pubmed search skill

# About Search detail

Check search details to see how Pubmed interpret your search term



**Keyword:**  
**deep vein thrombosis**

Click the greater-than sign (>) to display search details.

History and Search Details						Download	Delete
Search	Actions	Details	Query	Results	Time		
#3	...	▼	Search: <b>deep vein thrombosis</b> "venous thrombosis"[MeSH Terms] OR ("venous"[All Fields] AND "thrombosis"[All Fields]) OR "venous thrombosis"[All Fields] OR ("deep"[All Fields] AND "vein"[All Fields] AND "thrombosis"[All Fields]) OR "deep vein thrombosis"[All Fields] <b>Translations</b> <b>deep vein thrombosis:</b> "venous thrombosis"[MeSH Terms] OR ("venous"[All Fields] AND "thrombosis"[All Fields]) OR "venous thrombosis"[All Fields] OR ("deep"[All Fields] AND "vein"[All Fields] AND "thrombosis"[All Fields]) OR "deep vein thrombosis"[All Fields]	100,876	02:43:01		
#2	...	>	Search: <b>continuous passive motion</b>	4,029	02:42:49		
#1	...	>	Search: <b>total knee replacement</b>	38,076	02:42:34		

Good interpretation

# About Search detail

Check search details



**Keyword:**  
**continuous passive motion**

Click the greater-than sign (>) to display search details.

Bad interpretation

Search	Actions	Details	Query	Results	Time
#2	...	▼	<p>Search: <b>continuous passive motion</b></p> <p>("continual"[All Fields] OR "continually"[All Fields] OR "continuance"[All Fields] OR "continuation"[All Fields] OR "continuations"[All Fields] OR "continue"[All Fields] OR "continued"[All Fields] OR "continuer"[All Fields] OR "continuers"[All Fields] OR "continues"[All Fields] OR "continuing"[All Fields] OR "continuities"[All Fields] OR "continuity"[All Fields] OR "continuous"[All Fields] OR "continuously"[All Fields]) AND ("range of motion, articular"[MeSH Terms] OR ("range"[All Fields] AND "motion"[All Fields] AND "articular"[All Fields]) OR "articular range of motion"[All Fields] OR ("passive"[All Fields] AND "motion"[All Fields]) OR "passive motion"[All Fields])</p> <p><b>Translations</b></p> <p><b>continuous:</b> "continual"[All Fields] OR "continually"[All Fields] OR "continuance"[All Fields] OR "continuation"[All Fields] OR "continuations"[All Fields] OR "continue"[All Fields] OR "continued"[All Fields] OR "continuer"[All Fields] OR "continuers"[All Fields] OR "continues"[All Fields] OR "continuing"[All Fields] OR "continuities"[All Fields] OR "continuity"[All Fields] OR "continuous"[All Fields] OR "continuously"[All Fields]</p> <p><b>passive motion:</b> "range of motion, articular"[MeSH Terms] OR ("range"[All Fields] AND "motion"[All Fields] AND "articular"[All Fields]) OR "articular range of motion"[All Fields] OR ("passive"[All Fields] AND "motion"[All Fields]) OR "passive motion"[All Fields]</p>	4,029	03/

# Learning goals



- 1 Familiar with Pubmed interface
- 2 Know how to access full text articles
- 3 Understand the recommended search steps
- 4 Learn about Medical Subject Headings (MeSH)
- 5 Identify the scope of actual searches in PubMed from search details
- 6 Master Pubmed search skill**

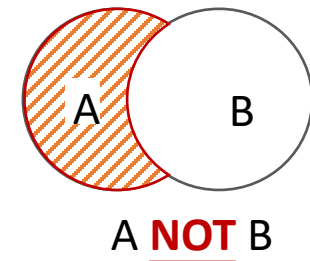
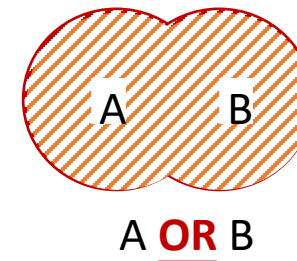
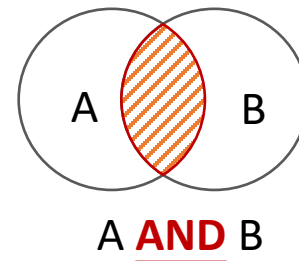
# Search tips: 1

1



## Boolean operators

- Including AND, OR, NOT
- MUST Be CAPITALIZED in PubMed
- You may use the & (ampersand) in place of AND.



Query	Results
Search: <b>diabetes</b> AND <b>blood glucose control</b>	84,376
Search: <b>Glycaemic Control</b> OR <b>blood glucose control</b>	128,303
Search: <b>Diabetes</b> AND ( <b>Glycaemic Control</b> OR <b>blood glucose control</b> )	88,953
Search: <b>Diabetes</b> AND ( <b>Glycaemic Control</b> OR <b>blood glucose control</b> ) <b>NOT</b> diet	73,933

# Search tips: 2



## Quotations marks

- Used for phrase searches
- Indicates that words must appear in a specific order.
- Using quotation marks will disable PubMed's automatic term mapping function.

	Query	Results
#2	... > Search: "kangaroo care"	466
#1	... > Search: kangaroo care	1,284

The evolution of the science of kangaroo (mother) care (skin-to-skin contact).

Kostandy RR, Ludington-Hoe SM.

Birth Defects Res. 2019 Sep 1;111(15):1032-1043. doi: 10.1002/bdr2.1565. Epub 2019 Aug 16.

PMID: 31419082 Review.

In the mid 1970s, Rey and Martinez in Bogota Colombia started investigating the same care method and they called it "Kangaroo Care" (KC). Infants are held upright, skin-to-skin on the mother's bare chest. KC, also referred to as Kangaroo Mother Care ...

# Search tips: 2



## Quotations marks

- Used for phrase searches
- Indicates that words must appear in a specific order.
- Using quotation marks will disable PubMed's automatic term mapping function.

	Query	Results
#2	... > Search: "kangaroo care"	466
#1	... > Search: kangaroo care	1,284

**Kangaroo care** and postpartum depression: The role of oxytocin.

Badr HA, Zauszniewski JA.

Int J Nurs Sci. 2017 Jan 5;4(2):179-183. doi: 10.1016/j.ijnss.2017.01.001. eCollection 2017 Apr 10.

PMID: 31406740 [Free PMC article.](#) [Review.](#)

The search terms used were postpartum depression, postnatal depression, oxytocin, oxytocin hormone, postpartum depression, **kangaroo care**, and skin-to-skin contact. RESULTS: **Kangaroo care** was found to play an important role in decreasing the risk for po ...

# Search tips: 3



## Using truncation to mapping search term

- At least four letters.
- Use an asterisk (\*) to substitute for 0 or more characters.
- Use quotations or hyphen to connect two words.
- It will disable PubMed's automatic term mapping function when using truncation.

Query	Results
Search: <b>diabet*</b>	951,932



**Diabetic** ketoacidosis diagnosis in a hospital setting.

Healy AM, Faherty M, Khan Z, Emara N, Carter C, Scheidemantel A, Abu-Jubara M, Young R.

J Osteopath Med. 2023 Jul 7. doi: 10.1515/jom-2023-0019. Online ahead of print.

PMID: 37406169 **Free article.**

CONTEXT: **Diabetic** ketoacidosis (DKA) is an endocrine emergency that can occur in people with **diabetes**. ...Most patients were admitted to the intensive care unit (ICU) and treated with IV insulin infusion (n=288). Consultation of endocrinology or **diabetology** o ...

# Search tips: 4



4

## Proximity operator

- Search for multiple terms appearing in any order within a specified distance of one another in the [Title], [Title/Abstract] or [Affiliation] fields.
- Format: "Word 1 Word 2" [tiab:~N]
- Using quotations in the keyword, but no asterisk (\*)
- The automatic term mapping function will be disable.

Query	Results
Search: "life quality" [Title/Abstract:~0]	10,976



Probiotics Improve Gastrointestinal Function and **Life Quality** in Pregnancy.

Liu AT, Chen S, Jena PK, Sheng L, Hu Y, Wan YY.

Nutrients. 2021 Nov 3;13(11):3931. doi: 10.3390/nu13113931.

PMID: 34836186 [Free PMC article.](#)

The study was 16 days consisting of two cycles of six daily probiotics mainly Lactobacillus and 2 days without probiotics. Daily surveys were conducted to monitor GI function and **life quality**. A subset of the participants who contributed fecal specimens was used for ...

# Search tips: 4



4

## Proximity operator

- Search for multiple terms appearing in any order within a specified distance of one another in the [Title] or [Title/Abstract] fields.
- Format: "Word 1 Word 2" [tiab:~N]
- Using quotations in the keyword, but no asterisk (\*)
- The automatic term mapping function will be disabled.

Query	Results
Search: "life quality" [Title/Abstract:~1]	386,333



Improving **Quality of Life** in Heart Failure.

Freedland KE, Rich MW, Carney RM.

Curr Cardiol Rep. 2021 Oct 1;23(11):159. doi: 10.1007/s11886-021-01588-y.

PMID: 34599415 Review.

PURPOSE OF REVIEW: Heart failure has substantial effects on health-related **quality of life**. Maintaining or improving **quality of life** is an important goal of heart failure therapy, and many patients value better **quality of life** over greater ...

# Search tips: 4



4

## Proximity operator

- Search for multiple terms appearing in any order within a specified distance of one another in the [Title] or [Title/Abstract] fields.
- Format: "Word 1 Word 2" [tiab:~N]
- Using quotations in the keyword, but no asterisk (\*)
- The automatic term mapping function will be disable.

Query	Results
Search: "life quality" [Title/Abstract:~2]	389,989



**Quality of work life** and self-care in nursing staff with high emotional demand.  
 Vidal-Blanco G, Oliver A, Galiana L, Sansó N.  
 Enferm Clin (Engl Ed). 2019 May-Jun;29(3):186-194. doi: 10.1016/j.enfcli.2018.06.004. Epub 2018 Aug 28.  
 PMID: 30170737 English, Spanish.  
 OBJECTIVE: To explore the variables related to the **quality of work life** and the self-care of nursing professionals working with high emotional demand. ...Working with patients was highlighted as a protective factor, based on the satisfaction derived from helping in ...



# Question?



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## Location

3F, Comprehensive Medical Building  
(Rear Building), Xinyi Campus

## Service Hours

Mon~Fri  
10:00-13:00, 1330-1700



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