

ADVANCED PUBMED TUTORIAL

MEDLINE is an important professional tool, with powerful search options not available in web search applications like Google. It leads to **journal articles** that update and expand on information from textbooks and the web.

This tutorial shows how to **improve search efficiency**, and to **avoid missing information** when completeness counts.

HOW IS PUBMED DIFFERENT FROM OVID MEDLINE?

PubMed Advantages: 1) Includes very recent items, even before subject headings are assigned. 2) Available at no charge. **PubMed Disadvantages:** Search details are less visible in PubMed; harder to learn systematic searching?

HOW TO USE THE TUTORIAL: A **“live” PubMed connection** is important. Seeing what happens **online** helps you learn. **Read** until you see a box indicating it's time to take action online. You can check the boxes to **mark your place**. **Allow enough time** to read carefully and **think** about what you are doing.

HOW DO I CONNECT?

- Go to <http://www.library.drexel.edu> , then click **Health Sciences** (top of page).
 - Find **Quick Links** on the Health Sciences Libraries page, and click **MEDLINE (PUBMED)**
 - If you are off-campus, type your Drexel email username/password.
- Avoid DrexelOne** login -- It times out, interrupting your search.
- Avoid** login at <http://pubmed.gov>, because **Drexel full text** links won't appear.

- Be sure **PubMed** is the currently-open database (look for **PubMed** at top of screen).

DEFAULT SEARCH – QUICK & DIRTY and **MAPPING, MESH, AND TEXT WORDS**

Search 1. Find articles on **prevention of heart disease in patients with diabetes**, as follows:

PubMed **default search** allows typing **multiple** topics at once.

- In the search box type: **prevention heart disease diabetes** then click **Search**.
 - Look at titles in the results. **Do some results seem less relevant** than others? Why? How did PubMed do the search?
- Find out by scrolling down to **“Search Details”** on the right side of the page. Then click **See more...** (below Search Details box, to see PubMed search strategy, based on what you typed).

PubMed tried to **“map”** to standardized **Medical Subject Headings (MeSH)** assigned by **indexers**.

Mapping = software feature that finds MeSH Headings to match the topic you typed.

MeSH = **Medical Subject Heading** from a list maintained by the National Library of Medicine.

MeSH Headings are **standardized**, while authors' words for a topic can vary. For example, **authors** may use **kidney failure, renal failure, or renal insufficiency**, but **indexers** consistently assign the **MeSH heading: “Renal Insufficiency”**.

Subheading = a secondary topic that an indexer can link to a MeSH Heading

The **Details** box shows

- PubMed mapped to **3 MeSH: Heart Diseases, Diabetes Mellitus, Diabetes Insipidus**
 - The **Subheading "Prevention and Control"** was searched, but it was **not linked** to Heart Diseases – so results may include prevention of diabetes and other diseases as well as prevention of heart diseases.
 - Words in **titles, abstracts**, etc. were searched [**All Fields**], but variations were ignored, omitting “diabetic(s)”, “prevent(s)”, “preventing”, “cardiac disease(s)”, etc.
- You were not offered a **search-as-major-topic** option, so results include less-relevant items.

Click the clear button (x in a gray circle inside the search box), then try a 2nd **default** search, as follows:

Search 2: diet therapy in type-2 diabetes

- In the search box type: **diet therapy type 2 diabetes** and click **Search**.
- Scan the results. Do they relate strongly to diet therapy of type 2 diabetes?

Again, with no search-as-major-topic option, diabetes or diet therapy may be **minor** topics.

- Find **Search details** on right side of the page, and click **See more...** to see how mapping operated in default search:
 - **Diet Therapy**[Subheading] was **not linked** to Diabetes Mellitus, so results may include diet therapy of other diseases.
 - PubMed mapped to **MeSH Terms: Diet Therapy Diabetes Mellitus, Type 2**.
 - PubMed added **words** [All Fields] exactly matching what you typed but omitted variations like “diabetic(s)”, “dietary treatment”, “dietary guidelines”, “weight-reducing diet”).

MESH DATABASE – BETTER MAPPING TO MESH

SUBHEADING LIST, MAJOR TOPIC, EXPLODE, TREE DISPLAY

The MeSH Database offers better mapping to MeSH and better-targeted results.

Search 2a: diet therapy in type-2 diabetes (same as before, but using **MeSH Database**)

You can open the MeSH Database several ways, including:

- Open the menu next to the search box, and select **MeSH** from the pull-down menu.

Mapping **works best** if you type **one topic at a time**. Begin with the most important topic.

- Clear the search box (x) if needed. Type **type 2 diabetes** and click **Search**.
 - Look at the top banner. You should be in a **different** database now (**MeSH**)
- You should see the “**Full**” **display** for the **MeSH** term **Diabetes Mellitus, Type 2** .

- Full display includes the Subheading list. Scroll down to **Subheadings**, and look for one that matches the 2nd search question topic - **diet therapy**.
- Click the box in front of **Diet Therapy**.
This **links** Diet therapy (2ndary topic) to Diabetes Mellitus, Type 2.

- Find the **Restrict Search to Major Topic** box below the list of Subheadings.
For MeSH, **major topic** means the **indexer tagged this MeSH** term as a **major point (focus)**

DISPLAY MESH HEADINGS

- Look for the **[+]** at the end of each result. Pick a result where “MeSH Terms” appears in the text next to the [+], indicating the item has been indexed (has MeSH).
Click the **+** sign.
- Look for an **asterisk** following some MeSH Headings. A MeSH with an asterisk was tagged by an indexer as a **major topic**, e.g. **Diabetes Mellitus, Type 2/diet therapy***

Why look at MeSH? If you pick a **highly-relevant** item and view MeSH assigned to it, you may discover one that had not occurred to you, or that PubMed could not map to. Adding it to the search may improve results.

CAN'T MAP TO MESH?

If **Mapping fails**, use **default** search, but remember to view MeSH assigned to highly relevant results. If you see a good MeSH, search it in the MeSH Database, adding Subheadings, Major Topic option, etc. If no MeSH matches your topic, continue with default search.

COMBINING MESH TOPICS

The last search required 1 MeSH linked to a Subheading. A search with **2 separate MeSH** looks different. Try search 1 again, using **MeSH Database** to map to MeSH, **one** topic at a time:

Search 3: prevention of heart disease in patients with diabetes [using MeSH Database]

2 critical topics: **diabetes, heart disease** Secondary topic: prevention

- In the menu next to the search box, select **MeSH**, and **clear the search box** if needed (x).
- Type **diabetes (1 topic only!)** and click **Search**.
- In the MeSH database, click **Diabetes Mellitus** (blue link) to open **Full display**.
- Is there a **Subheading** that exactly matches “heart disease” or “prevention”?
“Prevention & Control” is available but should be linked to heart disease, not diabetes.
“Complications” is not an exact match for heart disease, so don't check that.
If no Subheading exactly matches, don't pick any PubMed will search **all** Subheadings, plus instances when NO Subheading was assigned.
- Check Restrict to **Major topic**
- Scroll down to see the MeSH indented below Diabetes Mellitus (specific types of diabetes). PubMed will add these (explode) by default.
- Click **[Add to search builder]** then look for “**Diabetes Mellitus**”**[Majr]** in search builder box.
 - Click **[Search PubMed]** to **exit MeSH** database and search in PubMed.

Note – You can **combine 2 different** MeSH **before** exiting MeSH Database. However, for advanced searching it's best to search **one topic** in MeSH Database, **exit** to PubMed, then **return to MeSH** Database for the 2nd topic. This keeps **different topics** in **different search results**, allowing **more flexibility** when combining MeSH and text words (more on this later).

- On the results page, select **MeSH** database again using the pull-down menu
- Clear** the search box, then type the 2nd critical topic - **heart disease** - and click **Search**.
- In the MeSH database, click **Heart DiseaseS** (blue link) to open the “**Full**” display
- Does a Subheading exactly match the 3rd topic?. Click the box in front of **Prevention & control**
- Check Restrict to **Major topic**

- Scroll down to see MeSH **indented** under Heart Diseases, naming specific diseases. PubMed automatically explodes (adds the indented MeSH).
- Scroll back up and click **[Add to search builder]**
- Look for "**Heart Diseases/prevention and control**"[Majr] in the search builder box.
- Click **[Search PubMed]** to exit MeSH database and search in PubMed.

Now **COMBINE RESULT NUMBERS FROM SEARCH HISTORY**.

- To see Search History, click **Advanced** (below search box).
Note below Search History (under **More Resources**) a **MeSH Database** link -- another way to open MeSH Database when you are on the Advanced page. Ignore it for now.

Search history is in reverse chronologic order -- latest result is at the top.

Result numbers may be missing if they were created in MeSH Database instead of PubMed.

You should see the following, though your results numbers may be different:

#10 Search "**Heart Diseases/prevention and control**"[Majr] Limits: Humans, English 19XXX
#13 Search "**Diabetes Mellitus**"[Majr] Limits: Humans, English 132XXX

Note: Humans & English limits remain in effect from search 2.

Use **AND** to find different topics in the **SAME** article

- Scroll up past the Search Builder box ,and **Clear** the search box, if not already clear
- Option 1: Type result numbers including the # sign**, e.g.: **#10 AND #13** -- Capitalizing "AND" and inserting **correct numbers** from your search. Click **Preview**, not search.
Option 2 -- no typing: Clear the search box as needed. **Left-click result numbers** to transfer them to the search box (e.g. click **#10**, click **AND**, click **#13**, click **AND**). Look at search box – does it look OK?
- Click **Preview** (not Search) to **keep history open**, then click **More History** to see all results. Compare the number of new results with earlier, default search results.
- View new results by clicking the **number** in the **Result** column. Are results closely related to the question?

MeSH, Subheadings, and Major topic can **save time by targeting highly-relevant** results.

SEARCH RECENT YEARS ONLY

- Click **Limits** (below search box). Under **Dates**, select an option, last **5 years**
- Be sure the search box still contains your last search, then click **Search**. Results should be much smaller than ALL-years results.

Warning: If the **search box is empty**, the Dates limit retrieves ALL items published in those years. This result must be combined with other results using **AND**.

ADDING TEXT WORDS TO MESH

MeSH search is powerful, yet it **can't always succeed** because

- Very **new** & very **old** items lack MeSH. Text word search is the only way to find them.
 - There is **no MeSH for some topics** (e.g. length of labor)
 - Indexers don't assign MeSH for every topic in the title/abstract, but text word search can find every word.
 - **New MeSH** are **not retroactive**, so older articles lack the new MeSH
- Where MeSH fails, text words serve as a safety net, and vice versa.

TEXT WORD CHALLENGE – WORD VARIATIONS

Title/abstract words are **not standardized**. To avoid missing relevant items, you must search **synonyms** (vitamin C, ascorbic acid); **word endings** (prevent -ing, -ion, -ed, -s); different **spacings** RU486, RU 486, RU-486; **British spellings** :paediatric, haemolysis, etc..

Help with synonyms? 1. Scan titles in **MeSH results**. 2. **Entry term list** in MeSH database.

Asterisk (*) is PubMed's **truncation character** or "wild card". Placing * after a **word stem** retrieves the stem followed by a **blank space OR any characters**,
e.g. **prevent*** retrieves **prevent, prevents, preventing, prevented, prevention...**
Warning: The **asterisk prevents mapping to MeSH**. Use it **only** for **text word search**.

Search 4: prevention of heart disease in patients with diabetes [Adding text words to supplement MeSH]

You can type text word variations in the Search box, where PubMed searches all parts of a record including **text words (title/abstract words)**. Word variations for **heart disease** include cardiac disease(s), coronary disease, heart disease(s).

- Clear** the search box and type: **(heart[ti] OR cardiac[ti] OR coronary[ti]) AND disease*[ti]**
"AND" and "OR" are **capitalized**; ***(asterisk)** =different word endings;
Parentheses ensure **correct logic** -- Combinations in **parentheses** are performed first.

TEXT WORDS IN TITLE ONLY For text words, appearing in the title indicates **major topic**. Add **[ti]** if you want the topic to be a major point in the results. In this case, YES. Our **MeSH** search was restricted to **Major Topic**, so the **text word** search should be **major topic also**. If MeSH was **not** searched as Major topic, omit [ti] for the text word search.

- Click **Search**
 Clear the search box, type **prevention** words: **prevent*[ti] OR protect*[ti]** then **Search**.
 Clear the search box, type **diabet*[ti]** then **Search**.

On Advanced search page, your **History** should be like this, after clicking **More History**:

#18	Search diabet*[ti] Limits:, Humans, Eng, last 5 yrs	31xxx
#17	Search prevent*[ti] OR protect*[ti] Limits: Humans, Eng, last 5 yrs	34xxx
#16	Search (heart[ti] OR cardiac[ti] OR coronary [ti]) AND disease*[ti] Lim: Hum...	11xxx
#15	Search (#13) AND (#10) Limits: Humans, Eng last 5 yrs	1xx
#14	Search (#13) AND (#10) Limits: Humans, Eng	4xx
#13	Search " Heart Diseases/prevention and control "[Majr] Limits: Humans, Eng	19xxx
#10	Search " Diabetes Mellitus "[Majr] Limits: Humans, Eng	132xxx

Tip: **Delete** unwanted results (errors) by clicking the result number and selecting **delete**.

Is there a **text word** search that matches **#13**? Not yet; create it by combining **text word** results for **heart disease** (#16) and **prevention** (#17).

- Clear** search box; **combine** the 2 results using **AND**. Click **Preview** (keep history open).
New result: #19 Search #16 AND #17 Limits: Humans, English , last 5yrs 4xx

Next, create a **heart disease prevention "superset"** by combining results of the **2 heart disease prevention** searches (#13, #19). **Use OR with word variations for the SAME topic**.

- Clear** search box, combine result numbers with **OR**, and **Preview**.

New result: #20...Search #13 OR #19 Limits: Humans, English, 5yr 5xxx

This superset contains **unique** results from MeSH (not found via text words) and unique results from text words (not found via MeSH), with duplicates removed.

Now create a **diabetes superset**, by combining the **2 diabetes results** (#18, #10),

- Clear** search box, enter result numbers combined with **OR**, and **Preview**

New result: #21 Search #10 OR #18 Limits: Humans, English, 5yr 37xxx

Finally, combine the 2 **supersets** (heart-disease-prevention, diabetes) using **AND** (different topics).

- Clear** search box, enter result numbers combined with **AND**, then **Preview**

New result: #22 Search #20 AND #21 Limits: Humans, English, 5yrs 2xx

- Looking at Search history, **compare** number of results versus the **MeSH-only**, last 5 years results. Adding text words usually increases the results.

-- Which results came from **MeSH alone**? #15 1xx

-- Which results were **added** by **title** words (includes MeSH + text word combinations)?

- Clear** then search #22 NOT #15 Result: 2x

View the results added by title words. Are they good or bad?

Text words may add junk, e.g.: *Renal protective effect of metabolic therapy in patients with coronary artery disease and diabetes* (protection against kidney disease instead of heart disease)

They may also add valuable items, e.g. *Primary prevention of cardiovascular diseases in people with diabetes mellitus: a scientific statement from the Amer. Heart Assoc. ...* (MeSH = Cardiovascular Diseases/prevention & control instead of Heart Diseases/prev & control). *Coronary heart disease in patients with diabetes: pt. I: recent advances in prevention and noninvasive management.* (MeSH=Coronary Disease/prev & control but not tagged as Major topic). These would have been missed by our MeSH alone.

Combining MeSH and text words takes advantage of strong points of each. Use both when you need to avoid missing good articles (patient care, publication, etc.)

SEARCH SAME WORD AS MESH AND AS TEXT WORD?

Can results be different? Yes! Text word results depend on words in title or abstract, **no matter what MeSH was assigned.** MeSH results depend on subject headings assigned by an indexer – **no matter what words are in title or abstract.**

COMBINING MESH AND TEXT WORDS – CHANGING TO MAJOR TOPIC

Search 5 Seizures (or epilepsy) caused by video games

First, reset limits and clear search history from PubMed and MeSH databases, as follows:

- In Advanced Search, click **Clear History** (below Search History) to clear **PubMed** history.
- Still on the Advanced Search page, scroll down to **More Resources**, and click **MeSH Database**. Open Advanced Search, **Clear History** for the MeSH Database.
- Scroll down to **Popular** links and **click PubMed**.
- On Limits page, keep Humans & English, but for **Dates** select **Any Date**. Click **Search** to set the revised limits

- Start the new search by finding MeSH = **video games** in the **MeSH Database**. Don't pick any Subheading (all will be searched). Don't restrict to major topic yet. Click [**Add to search builder**], then **Search PubMed**.
- Look at titles from the MeSH search. What word variations for video games do you see? (computer games, online gaming, etc.). Type video game **text word variations** (synonyms & different word endings) in search box, separated by **OR**. Click **Search**.
- In search history, find the **2 video games results** (MeSH vs. text word). Clear the search box, then **combine result numbers using OR**, to create a video games "superset".
- Next topic**: Open MeSH database and map **seizures** to **MeSH=Seizures**. The Tree display shows seizures **indented below Epilepsy**. Click **Epilepsy** (in Tree display) to select that MeSH instead. Scroll down to see MeSH indented under **Epilepsy**, including Seizures and many more. Don't restrict to major topic. Include **all** subheadings (don't pick any). Click [**Add to search builder**], but don't Search PubMed yet.
- Add **word variations** for **seizures/epilepsy** to the search builder box **while still in the MeSH Database**, separated by **OR**, e.g. "**Epilepsy**"[Mesh] **OR epilep* OR seiz***
This creates an epilepsy/seizures superset (MeSH or text words) without an extra step of combining separate results for the **same topic**. Now click [**Search PubMed**].
- Open search history, and use **AND** to combine the supersets for **video games and seizures**.

Your history should be similar to this (start at the bottom):

#9	Search (#8) AND (#4) Limits: Humans, English	8x
#8	Search "Epilepsy"[Mesh] OR epilep* OR seiz* Limits: Humans, English	87xxx
#4	Search (#2) OR (#3) Limits: Humans, English	2xxx
#3	Search (video OR computer OR electronic OR online OR digital) AND (game* OR gaming) Limits: Humans, English	2xxx (Parentheses ensure correct logic)
#2	Search "Video Games"[Mesh] Limits: Humans, English	1xxx

- Are the results for #9 well-targeted?
- To focus better, make **video games a major topic**. In History, copy and paste "**Video Games**"[Mesh] into the search box. Change [Mesh] to [Majr] and click **Preview** (keep History open). Look for the new result: "**Video Games**"[Majr] – with smaller results than before.
- Clear search box, then copy & paste **video games text words** into the search box, **adding [ti]** after **each word** (title = major topic). Click Preview to see the new Title word result.
- Clear search box, then **combine the 2 new video games results ([Majr] and [ti]) using OR**, to create a major-topic superset. **Preview**
- Combine the new **major-topic video game superset** with the **epilepsy superset** using **AND**.

Latest history should look like this:

#13	Search (#8) AND (#12) Limits: Humans, English	4x
#12	Search (#10) OR (#11) Limits: Humans, English	9xx
#11	Search (video[ti] OR computer[ti] OR electronic[ti] OR online[ti] OR digital[ti]) AND (game*[ti] OR gaming[ti] OR arcade*[ti]) Limits: Humans, English	5xx
#10	Search "Video Games"[Majr] Limits: Humans, English	7xx

Do results in #13 show stronger emphasis on video games?

NOTE: create a "superset" (MeSH OR text words) for each topic BEFORE combining different topics. What's wrong with **(topic-1-MeSH AND topic-2-MeSH) OR (topic-1-text-words AND topic-2-text-words)**? You miss MeSH + text word combinations like (topic-1-MeSH AND topic-2-text-words). Best results: **(topic-1-MeSH OR topic-1-text words) AND (topic-2-MeSH OR topic-2-text-words)**.

See a **video** of this search at: <http://rmcp.dcollege.net/playlists.aspx/656/18018/html>

REVIEW ARTICLES, VALID CLINICAL EVIDENCE

Review articles summarize the published literature – saving your time!

- In **Search History**; click **# of results** for the **video games (major topic) superset** (>900 items)
 - The result page has a “Filter your results” option (upper right). Click **Review** (5x items).
- Do you see good literature review articles on **video games**? Some reviews summarize literature on a narrowly-defined topic, instead of a broad overview.

To find reports of **Clinical Trials**, or **Meta-Analysis** of clinical studies, change **Limits**:

- Under **Type of Article** check **Meta-Analysis** and **Randomized Controlled Trial**.
 - Be sure the Search box still contains the video games (major topic) superset. If not, you can type the correct result # or copy/paste into the search box. Click **Search**.
- Results should be randomized controlled trials or meta-analyses involving video games.

- Remove **Type of Article** limits by un-checking the boxes, and clicking **Search**.

CLINICAL QUERIES / SYSTEMATIC REVIEWS

Clinical Queries offers another way to find **valid evidence for patient care**.

- On **Advanced** search screen, find **Clinical Queries** (under **More Resources**) and click it.
- In the search box, type **type 2 diabetes diet therapy** and click **Search**.
- In the **left** column, see what happens if you select a different **Scope** (Narrow?) or **Category**.
Would these items help in patient management?
- Are Clinical Queries results **well targeted**? Clinical Queries uses PubMed **default** search, with no Major Topic or Subheading options.
- The **center** column shows **Systematic Reviews** (over 200). In a systematic review, authors select a patient care question, critically evaluate reports of clinical trials on that question, and determine whether the evidence is strong or weak.

Systematic Reviews Limit Alternatively, you can use advanced search techniques (MeSH as Major Topic, adding title words), then add a limit:

- Back** up to **Advanced** page. If the search box is empty, type a result number (e.g. video games major topic superset) from the history. Open the **Limits** page, find **Subsets = Systematic Reviews**, select the limit, and **Search**. Results are likely to be well-targeted.

RELATED ARTICLES FEATURE

- While viewing results from the last search, pick an item that interests you.
- Click the blue **Related Citations** link and wait for a new list to display.
The **first** item is the one you started with. Other items have similar MeSH Headings and text words. Best matches appear near the top of the list.

ARTICLE FULL TEXT

Warning: The **Free Full Text** filter misses articles Drexel pays for! Avoid this filter.

Full Text links appear in the **abstract** display.

- Open any **abstract** display and look for **2 types of full text links**:
1) **PubMed full text links** – **Not based on Drexel Library subscriptions**; not reliable unless they specify **FREE** full text.

- 2) **Get It** – For full text purchased by Drexel Libraries for students and staff.
- Click a **Get It Drexel Full Text** button. A **new** browser **window** should open. The **Get It** window shows your item and an availability message.
 - If you see “**Content is available via the following links**”
 - Click the blue “**Article**” link to connect to full text. Another window opens at the journal web site. If the article doesn’t open immediately, find the correct **journal issue** and **page**. Don’t remember the volume/issue/page? Refer to the Get It window or PubMed window, which should still be open.
 - Hint: Open **PDF format**, if offered, and use **Acrobat’s print icon** for **best printing**.
 - When finished, **close** the **article** and **Get It windows**, and return to PubMed.
 - If you see “**No Drexel online access available**” **scroll down** to see other options: **Search the library catalog** (find it on library shelves?) or **Borrow this item through Interlibrary Loan** (ILLiad) – takes 1-2 days in most cases.
 - Close any Drexel Full Text Options and full text article windows.

Please alert library staff about problems with Get It links, so we can fix them -Thanks!

PRINT, SAVE, OR EMAIL RESULTS

You can **Select results** to print/save/email:

- Return to search results (Back), then click checkboxes of several items from the list.
 - Open the **[Send to]** menu (below **Search**) and select **Clipboard**, where you can accumulate results of different searches for later printing, saving, emailing. Click **Add to Clipboard**.
 - When finished, click “**n items**” next to **Clipboard** (upper right) to see items selected.
 - To **print**, open **Display settings**. Select a format, **Apply** it, then use browser Print button.
 - To **save or email**, open the **Send To** menu and select **File** (download), **Email** (up to 200 results in each email), **Collections** or **My Bibliography** (save online after registering for MyNCBI).
- To **print/save/email ALL items** from a search, without checking any boxes,
- Pick a search in the Search History with more than 200 results.
 - To **print**, use **Display Settings** to select a format and number of citations to display (200). Use browser print buttons. For items 201-400, go to page 2 of the display, then print.
 - To **email**, click **Send To: E-Mail**, then select a format. **Summary(text)** and **Abstract(text)** formats eliminate graphics. You may email up to 200 results at a time. For the 2nd group of 200 items, type 201 in the “Start from citation” box.
 - To **save**, click **Collections** or **File** or **My Bibliography**; you may save more than 200 items.

FIND A KNOWN ARTICLE WHEN INFORMATION IS INCOMPLETE

Example: Article by **Fisher** in the journal: **Epilepsia** in **2005** -- title? volume? pages?

- Open **Advanced Search**. Under **More Resources**, click **Single Citation Matcher**
 - Fill in boxes for **Author** (Fisher), **Journal** (Epilepsia) and **Date** (2005) Click **Go**
- PubMed finds 3 papers on epilepsy by Fisher in Epilepsia, 2005.

HELP Reference librarians are happy to help if you have PubMed problems or questions!