

## 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**

- Change Display back to **Summary**.
- Find an item with the note: [PubMed - **indexed for MEDLINE**], then click the title.
- Look for **[+] ...MeSH Terms...** near the end of the record. **Click +** to see the MeSH terms.
- Find a MeSH term followed by an **asterisk**. \* indicates this MeSH was tagged by an indexer as a **major topic**, e.g. **Diabetes Mellitus, Type 2/diet therapy\***

**Why look at MeSH?** You may discover MeSH terms that had not occurred to you, or that PubMed could not map to. Adding them 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 still don't see a MeSH term that matches your topic, continue with default search.

**COMBINING MESH TOPICS**

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

- Map to MeSH: In menu next to search box, select **MeSH**, and **clear 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.  
**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 2<sup>nd</sup> critical topic - **heart disease** - and click **Search**.
- In the MeSH database, click **Heart Disease** (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 the **More Resources** pull-down menu above the search box, with a link to **MeSH Database**. Ignore it for now, but remember it for future use.

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

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

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

#10 Search "**Heart Diseases/prevention and control**"[Majr] Limits: Humans, English 19XXX  
#13 Search "**Diabetes Mellitus**"[Majr] Limits: Humans, English 135XXX

**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:** Click **Edit**, which allows typing directly into the search box. Type **result numbers** with # sign, e.g.: **#10 AND #13 -- Capitalizing "AND"**  
(use **correct numbers** from your search).

**Instead** of clicking **Search**, click **Add to history** to stay on this page.

**Option 2 -- no typing:** Clear the search box if needed. **Click result numbers** to transfer them to the search box (e.g. click **#10**, click **AND in builder**, click **#13**, click **AND...**). Look at search box – does it look OK? **Instead** of clicking **Search**, click **Add to history** to **stay on Advanced page**.

- Compare the size of MeSH results with earlier results from the default search.
- View the new, smaller MeSH 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** (1<sup>st</sup> limit), 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 variations?** Scan titles in **MeSH results**; also **Entry term list** in MeSH database.

**Asterisk (\*)** is PubMed **truncation character** or “wild card”. Placing \* after a **word stem** retrieves the stem followed by a **blank space OR 1 or more characters**,

e.g. **prevent\*** retrieves **prevent, prevents, preventing, prevented, prevention...**

**Warning!** -- The **asterisk prevents mapping to MeSH**. Use it **only** when searching **text words**.

#### **Search 4: prevention of heart disease in patients with diabetes -- ADD TEXT WORDS**

We already searched MeSH above. You can type **text word variations** in the **default search box**. PubMed will look for these text words in **titles, abstracts** and some other parts of PubMed records.

**TEXT WORDS AS MAJOR TOPIC -- TITLE ONLY** For text words, appearing in the **title** indicates **major topic**. We searched **MeSH as Major Topic**, so **text words** should be **in title** (major topic).

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
  - **[ti]** = **search in TITLE only**
  - **Parentheses** ensure **correct logic** (combinations in **parentheses** are performed first)

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:

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

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

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** with **AND**. **Add to history** (stay on Advanced page).

**New result:** #19 Search **#16 AND #17** Limits: Humans, English , last 5yrs 4xx

Now, **merge MeSH** and **text word results** (#13, #19) to create a single **heart disease prevention “superset”** **Use OR to combine results for the SAME topic**.

- Clear** search box, combine result numbers with “**OR in builder**”, and **Add to history**.  
**New result: #20...Search #13 OR #19 Limits: Humans, English, 5yr 5xxx**  
 Now there's only 1 result to combine with diabetes. This merged result keeps **unique** items from MeSH (not found via text words) and unique items from text words (not found via MeSH), with duplicates removed.

Now merge MeSH & text word results for **diabetes**: combine the **2 diabetes results** (#18, #10),

- Clear** search box, combine result numbers with **OR**, and **Add to history**  
**New result: #21 Search #10 OR #18 Limits: Humans, English, 5yr 38xxx**

Finally, combine the **merged heart disease prevention** and **merged diabetes** results using **AND** (different topics – want BOTH in all results).

- Clear** search box, combine result numbers with **AND**, then **Add to history**  
**New result: #22 Search #20 AND #21 Limits: Humans, English, 5yrs 2xx**

- In Search history, **compare** size of latest 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? YES - WHY?**

**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**.

#### **CONVERT MESH + TEXT WORD SEARCH TO MAJOR TOPIC**

##### **Search 5 Seizures (or epilepsy) caused by video games**

[Try this on your own. If you get frustrated, a video showing this search is at:  
<http://rmcp.dcollege.net/playlists.aspx/656/18018/html>]

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

- In Advanced Search, click **Clear History** (above result numbers) to clear earlier searches.  
 Still on the **Advanced** page, open **More Resources** tab, and click **MeSH Database**.  
 Open Advanced page in MeSH Database and **Clear History** for the MeSH Database.  
 Scroll down to **Popular** (at bottom of page) and **click PubMed**.  
 Open Limits; keep Humans & English. In **Dates** select **Any Date**. Click **Search** to set the

revised limits

- 1<sup>st</sup> topic: video games** Find MeSH = **video games** in the **MeSH Database**. Don't pick any Subheading (so 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 merged **video games "superset"** that eliminates duplicates but keeps unique items from MeSH and from text words.
- Next topic: seizures** Open MeSH database and map 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**.
- Type **word variations** for **seizures/epilepsy** in the search builder box **while still in the MeSH Database**, separated by **OR**, e.g. "**Epilepsy**"[Mesh] **OR epilep\* OR seiz\***  
This merges MeSH or text words results for epilepsy/seizures, creating a superset without having to combine result numbers. Now click [**Search PubMed**].
- Open search history. Use **AND** to combine merged results 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	88xxx	
#4	Search (#2) OR (#3) Limits: Humans, English	3xxx	
#3	Search (video OR computer OR electronic OR online OR digital) AND (game* OR gaming) Limits: Humans, English	3xxx	- (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**. On **Advanced** page, click **Edit** (below top-most search box) then copy and paste "**Video Games**"[Mesh] into the search box. Change [**Mesh**] to [**Majr**] and click **Add to history**. Look for the new result: "**Video Games**"[Majr] – with smaller results than before.
- Now click **Edit**, then copy & paste **video games text words** into the search box, **adding [ti]** after **each word** (title = major topic). Click **Add to history** to see the new, much smaller result.
- Combine** the **2 new video games results** (**[Majr]** and **[ti]**) **using OR**, to keep unique MeSH and unique text word results, while eliminating duplicates -- **Add to history**
- 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	11xx
#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	7xx
#10	Search "Video Games"[Majr] Limits: Humans, English	8xx

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

**NOTE:** Merge MeSH and text word results for **each topic BEFORE combining different topics**. Why not (**video games** MeSH AND epilepsy MeSH) OR (**video games** text-words AND epilepsy text-words)?

You miss MeSH + text word combinations like (video games MeSH AND epilepsy text-words).

Best: (video games MeSH OR video games text words) AND (epilepsy MeSH OR epilepsy text words).

### **REVIEW ARTICLES, VALID CLINICAL EVIDENCE**

Review articles summarize the published literature – saving your time!

- In **History**; click **# of results** for the **video games (major topic)** result (>1100 items)
  - The result page has a “Filter your results” option (upper right). Click **Review** (6x items).
- Do you see good literature reviews on **video games**? Some reviews cover a narrow topic.

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**.
- Is the major topic video games search still in the search box?. If not, type the 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** page, find **Clinical Queries** (in **More Resources**, near top) and click it.
- In the search box, type **epilepsy video games** and **Search**.
- In the **left** column, see what happens if you select a different **Scope** (Narrow?) or **Category**.
  - 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**. In this type of 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.
- Return to PubMed search: scrolling down to Popular heading and click PubMed.

### **Systematic Reviews Limit**

- From **History**, open results of the **video games major topic superset** (>1100). Change **Limits**, looking under **Subsets** to find **Systematic Reviews**, select the limit, and **Search**. Results are likely to be well-targeted, with video games a major point.

### **RELATED ARTICLES FEATURE**

- Scan the **result list** from the last search, and identify 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:** Avoid the **Free Full Text** filter; it skips articles Drexel pays for!

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

- Display any **abstract** 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 window** should open, showing availability. If you see **“Content is available via the following links”**
    - Click the blue **“Article”** link. 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? Switch to the still-open Drexel Full Text Options window or still-open PubMed window.
      - Hint: Open **PDF format**, if offered, and use **Acrobat’s print icon** for **best printing**.
    - When finished, **close** the **article** and Drexel full text 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:

- With search results open, click checkboxes of several items.
  - 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 selected items.
  - 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 2<sup>nd</sup> 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.

### **IDENTIFY AN ARTICLE BASED ON PARTIAL INFORMATION**

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 will gladly help if you have PubMed problems or questions!