

## ADVANCED PUBMED TUTORIAL

PUBMED is an important professional tool. Use this tutorial to learn how to improve search efficiency and avoid missing information when completeness counts.

**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 for keyboard input. You can check the boxes to **mark your place**. **Read carefully** and try to understand what you are doing and why.

### WHY USE PUBMED?

Find **journal articles** to update and expand on information from textbooks and the web. PubMed has powerful search options not available in web search applications like Google. PubMed excludes “junk”, in contrast to the Internet.

### HOW IS PUBMED DIFFERENT FROM OVID MEDLINE?

**PubMed Advantages:** 1) Includes very recent items (placed by Ovid in separate “In-Process” file). 2) Available at no charge. **PubMed Disadvantages:** Search details are less visible in PubMed; harder to learn systematic searching?

### HOW TO START: CONNECT TO PUBMED

- Go to **http://www.library.drexel.edu** , then click **Health Sciences Libraries** (top of page).
- Find **Quick Links** on the Health Sciences Libraries page
- Click MEDLINE (PUBMED).
- If you are off-campus, type your Drexel email username/password.

**Avoid DrexelOne login** because it times out, interrupting your search.

**Avoid login** via **http://pubmed.gov**, because **Drexel full text links** won't appear.

*As of 9/30/09, PubMed screens are redesigned. Old screens will appear until mid-October.*

*Until mid-October 2009, click “Try the Redesigned PubMed” to see updated screens.*

Be sure **PubMed** is the currently-open database (Search: .

### **DEFAULT SEARCH – QUICK & DIRTY**

### **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 **more than one** topic at a time. Boolean connectors like AND or OR are optional; **capitalize** them if you add them.

- In the search box type: **prevention heart disease diabetes** then click **Search** .  
Look at titles in the results. Are they relevant to the search question?

How did PubMed do the search, and **why do some results seem less relevant** than others?

- Find out by clicking **Advanced Search** (above Search button), then click **Details** (above Search box on the Advanced Search page).

Now you see PubMed's 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 Heading** = word or phrase from the **Medical Subject Headings** 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 the words "kidney failure" or "renal failure", but indexers assign the standardized MeSH Heading "Kidney Failure".

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

The Details box shows

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

Return to Advanced Search (browser Back button, or click link above Search box). Use the Search box on this page for another PubMed default search.

### Search 2: diet therapy in type-2 diabetes

- Clear** the search box. Type: **diet therapy type 2 diabetes** and click **Search**.
- Scan the results. Are they relevant? Again, there was no **search-as-major-topic** option, so diabetes or diet therapy may be only a **minor** topic.
- In **Advanced Search**, click **Details** to see how mapping operated in default search mode:
  - PubMed mapped to **MeSH Terms: Diet Therapy Diabetes Mellitus, Type 2**.
  - **Diet Therapy**[Subheading] was **not linked** to Diabetes Mellitus, so results may include Diet Therapy of other diseases.
  - PubMed added words 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 again, this time using the **MeSH Database**:

In the MeSH Database, you search for MeSH Headings. PubMed software **maps** from words in the search box to MeSH Headings that may match your topic. Mapping **works best** if you type **one topic at a time**.

You can open the MeSH Database several ways, including:

- Open the **Search** menu and switch from PubMed to **MeSH**. **OR**
- In Advanced Search: scroll far down to **More Resources**. Click **MeSH**

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

- Scroll down to the list of **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.  
In MeSH searching, **major topic** means the **indexer tagged this MeSH** term as a **major point (focus)** of the article.  
If you check the box you get **fewer** "hits" (**major** topic only). If you leave it un-checked you get more (**minor** topic as well as **major** topic).  
LARGE results can be expected for this search, so  **check the major topic box** to eliminate results where diet therapy of type 2 diabetes is NOT a major point.
- Scroll down to the **Entry Terms = synonyms and word variations** for type 2 diabetes.
- Scroll further down to the (**Tree Display**), showing **Broader/Narrower MeSH**.  
**Diabetes Mellitus, Type 2** has one **indented (more specific)** MeSH.  
PubMed **automatically adds narrower MeSH** Headings unless you click the **Do Not Explode** box (near the Major topic box). **Explode** means add indented MeSH to the search. Exploding is OK in this case, so don't check the Do Not Explode box.
- Now scroll back up and use this MeSH to search **PubMed**.  
**Note:** Clicking "**Links**" (near right margin) and selecting **PubMed** (or PubMed Major Topic) performs the MeSH search and exits MeSH – but ignores your selection of Subheadings and Do not Explode. To retain those selections you must **Send to: Search Box**, as follows.
- Open the [**Send to**] menu on lower gray bar. Click "**Search Box with AND**".  
A new, large search box opens **between the 2 gray bars**. In it, you should see:  
  

**"Diabetes Mellitus, Type 2/diet therapy"[Majr]**  
*[MeSH]                      [Subheading]    [Major topic]*
- Click [**Search PubMed**] (below search box) to exit MeSH Database and search PubMed.
- Look for **PubMed** in the top banner to confirm that you are back in PubMed.
- Scan the results from "**Diabetes Mellitus, Type 2/diet therapy**"[MAJR]  
How do these results compare with the previous search?  
Using MeSH Database can produce **more focused** results, with fewer irrelevant results than the default search.  
**Note** - very recent items may be missed, since they have no MeSH Headings yet.
- Look at titles of the results. What words are used to express **diet therapy**?  
MeSH search retrieved word variations even though you didn't type them. That's because **indexers** recognized diet therapy even though authors used different words, and assigned the standard MeSH Subheading = Diet Therapy.

### **ADD LIMITS – ENGLISH LANGUAGE, HUMANS**

- For **Limit** options, click Advanced Search. Scroll down to see types of limits available.
- Note:** **Full Text limits are not reliable** Use **SFX Drexel full text** links instead (p.10).

- Under **Humans or Animals** select **Humans**, and under **Languages** select **English**.
- Click **Search** to apply these limits to the query in already in the search box.  
Notice the  $\Delta$  **Limits activated** alert near top right corner of the results page.

- To see an **abstract** (if available), click the article title.
- To change the display so **abstracts** appear for **all** results, go **Back** to the results page; click **Display settings** (below gray bar); click **Abstract**, [**Apply**], then scroll down to view.

### **DISPLAY MESH HEADINGS**

- To view MeSH, scroll to the end of an abstract with a **[+] plus sign** next to **Publication Types, MeSH Terms, Substances**. Click the **+ sign**.  
**Note: recent** items have no MeSH Headings assigned yet. The label next to the plus sign indicates only **Publication Types** can be viewed.
- Look for an **asterisk** following a MeSH Heading. The asterisk indicates the indexer tagged that MeSH as a **major topic**, e.g. **Diabetes Mellitus, Type 2/diet therapy\***

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

### **CAN'T MAP TO MESH?**

**If Mapping fails**, use default search, but be sure to view MeSH terms assigned to highly relevant results. If you discover a good MeSH Heading, search it in the MeSH Database. If no MeSH matches your topic, continue with default search.

### **COMBINING MESH TOPICS**

The previous search required one MeSH linked to a Subheading. A search with **2 separate MeSH** looks different.

Try searching question 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**

- Open the **MeSH Database** (using **Search** menu), and clear the search box if needed.
- Type **heart disease** (1 topic only) and click **Go**.
- In the MeSH database, click **Heart Diseases** (blue link) to open the “**Full**” display
- Is there a **Subheading** that matches “prevention”? Check **Prevention & control** (check box is in front of the Subheading)
- Check Restrict to **Major topic**
- Scroll down to view MeSH indented below Heart Diseases (specific heart disease names).  
PubMed automatically explodes (adds the MeSH for specific heart diseases).
- Open the [**Send to**] menu and select **Search box with AND**
- Check to be sure the search box shows "**Heart Diseases/prevention and control**"[Majr], and no other MeSH left from earlier searching.
- Click [**Search PubMed**] to **exit MeSH** database and search in PubMed.

Note – You could **combine 2 different** topics **before** exiting MeSH Database. However, if you want to supplement MeSH with text words (see below), it's best to search only **one topic** in MeSH Database, **exit** to PubMed, then **return to MeSH** Database for the second topic. This keeps

**different topics in different answer sets, permitting more flexibility in combining topics.**

- Select **MeSH** database again via Search menu; clear the search box. Type the last topic of the question (**diabetes**) and click **Search**.
- In the MeSH database, click **Diabetes Mellitus** (blue link) to open Full display.
- No Subheading exactly matches a search topic, so do not check any**. If you don't pick any Subheading, PubMed searches **all** of them.
- Check Restrict to **Major topic**
- Scroll down to see the MeSH indented below Diabetes Mellitus (specific types of diabetes). PubMed will add these (explode).
- Open [**Send to**] and select **Search box with AND**
- Make sure Diabetes Mellitus is the only MeSH in the search box
- Click [**Search PubMed**] to exit MeSH database and search in PubMed.

Now **COMBINE SET NUMBERS**.

- To see Search History, including set numbers, click **Advanced Search** (above search box).
  - Results are in **reverse chronologic order** -- latest result is at the top.
  - **Set numbers may be skipped**, especially if MeSH Database was used.
  - If early sets are missing, click [**More History**]

You should see the following, but with true numbers, instead of nn:

#nn Search "**Diabetes Mellitus**"[Majr] Limits: Humans, English 116XXX

#nn Search "**Heart Diseases/prevention and control**"[Majr] Limits: Humans, English 17XXX

**Note:** Humans & English limits carried over from search 2a.

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

- Clear** the search box
- Now you can type set numbers including the # sign, e.g.: **#10 AND #13**  
**Capitalize AND** and **type correct numbers** from your search. .
- OR** Avoid typing: **left-click set numbers** to transfer them to the search box (e.g. click #10, click AND, click #13, click AND).

- Click **Preview** to keep history open, then click **More History** to see complete history. Compare the number of "hits" with earlier quick & dirty results.  View new results by clicking **number** in the **Result** column. Are they more closely related to the question? Using MeSH, Subheadings, and Major topic can save time by targeting more highly-relevant results.

**SEARCH RECENT YEARS ONLY**

- Open **Advanced Search**, and find **Search by Author, Journal, Publication Date**. Type **2005** in 1st box next to **Publication Date**; keep **present** in 2<sup>nd</sup> box -- and look at the Search box. The search displayed in the box will be restricted to 2005 to present.
- Click **Preview** to keep the search history open. Results should be much smaller than the previous result containing ALL years.

**Note:** If the search box was empty, the search would retrieve ALL items published in those years. You could use **AND** to combine with any new search, easily limiting new results to the same years.

**ADDING TEXT WORDS TO MESH**

**MeSH search is powerful** because search words are **standardized**, and you can **explode**, link

**Subheadings**, and search as **major topic**. Yet **supplementing MeSH with words from titles and abstracts (text words)** can be **useful because**:

- **Very new & very old items lack MeSH.** Text word search is the only way to find them.
- You may have **missed a good MeSH Heading.** E.g., you searched Papillomavirus, Human, but missed Papillomavirus Infections. Papillomavir\* (text word) can help.
- You can search **topics skipped by the indexer** in a long abstract
- A MeSH Heading may be **newly-created.** To retrieve items indexed before the new MeSH existed, you must search text words.
- Text words tend to **increase “hits”**, improving chances that enough results remain after applying **limits** (Review articles, Clinical trials, etc.), and searching **full text at Drexel.**

Text word search offers a **“safety net”** to avoid missing good articles.

### **TEXT WORD CHALLENGE – WORD VARIATIONS**

MeSH Headings are standardized, but text words are not. For best results, **type word variations**: **synonyms** (heart disease/cardiac disease, renal failure/kidney failure), **word endings** (preventing, prevention, prevent), **spacings** RU486, RU 486, RU-486, **British spellings** (paediatric, oesophagus, haemolysis)

**Asterisk (\*)** is PubMed's **truncation character**. Placing \* after a **word stem** retrieves the word stem followed by a **blank space OR any characters**:

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

**Warning:** The asterisk prevents mapping to MeSH. Use it **only** for text word search.

**Help with synonyms.** Scan titles of MeSH results. Look at Entry term list in the MeSH database.

### **Search 4: prevention of heart disease in patients with diabetes -- Add text words to 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]**  
**[ti]** means search title (**major topic**)

**Capitalize** “AND” and “OR”

\* means search different word endings

**Parentheses** ensure correct logic. Combinations in **parentheses** are performed first.

Click **Preview** instead of Search, to keep search history page open.

Clear the search box and enter **prevention** text words: **prevent\*[ti] OR protect\*[ti]**

Click **Preview** to keep search history page open.

Clear the search box, type **diabet\*[ti]** and click **Preview**.

Your Search **History** should be similar to this, after you click **More History**:

#17	Search <b>diabet*[ti]</b> Limits:, Humans, Eng	102xxx
#16	Search <b>prevent*[ti] OR protect*[ti]</b> Limits: Humans, Eng	113xxx
#15	Search ( <b>heart[ti] OR cardiac[ti] OR coronary [ti] ) AND disease*[ti]</b> Lim: Humans, Eng	45xxx
#14	Search (#12) AND (#9) Limits: Humans, Eng (AND 2005 to present)	1xx
#13	Search (#12) AND (#9) Limits: Humans, Eng	3xx
#12	Search <b>"Diabetes Mellitus"[Majr]</b> Limits: Humans, Eng	116xxx
#9	Search <b>"Heart Diseases/prevention and control"[Majr]</b> Limits: Humans, Eng	17xxx

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

Is there a **text word** set that matches #9? Not yet; create it by combining **text word** sets for **heart disease** (#15) and **prevention** (#16).

**Clear** search box; combine the 2 sets using **AND**. Click **Preview** (keep history open).

**New result:** #18 Search #15 AND #16 Limits: Humans, English 22xx

Next, combine results of the **2 heart disease prevention** searches (#18, #9) to create a “**superset**” containing MeSH **OR** text word results, with duplicates removed.

Use **OR** with word variations for the **SAME topic**.

Each result contains **at least one** of the word variations.

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

**New result:** #19...Search #18 OR #9 Limits: Humans, English 17xxx

Superset results may be larger than text word results or MeSH results.

Now combine the **2 diabetes results** (#17, #12), creating a diabetes superset containing MeSH **or** text word results, with duplicates removed:

**Clear** search box, enter set numbers combined with **OR**. **Preview**

**New result:** #20 Search #12 OR #17 Limits: Humans, English 122xxx

Finally, combine **heart-disease-prevention** and **diabetes** “supersets” using **AND** (different topics).

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

**New result:** #21 Search #19 AND #20 Limits: Humans, English 4xx

Restrict to years **2005 to present** by scrolling to **Search by Author...** Click **Search** and view

**New result:** #22 Search #19 AND #20 Limits: Humans, English, 2005 to present 2xx

Return to Search history, click **More History** and compare number of “hits” versus the MeSH-only, 2005-present results.

Adding text words usually increases the results.

-- Which results came from **MeSH alone**? #14 1xx

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

#23 Search #22 NOT #14 2x

Are the extra results 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 with 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** – Results can be different. Text word search depends on words in title or abstract, **no**

**matter what MeSH was assigned.** MeSH search depends on subject headings assigned by an indexer – **no matter what words are in title or abstract.**

### **COMBINING MESH AND TEXT WORDS – ANOTHER EXAMPLE**

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

First, clear search history from PubMed and MeSH databases:

- In Advanced Search, click **Clear History** but keep limits set to Humans and English.
- Scroll to **More Resources**, click **MeSH**, click **History** tab, and **Clear History**.
- Start with **video games**: In **MeSH** database, find MeSH = **video games**. Don't pick any Subheading (all will be searched). Don't restrict to major topic yet. Check the box in front of Video Games (1 box must be checked). **Send to** search box, and **Search PubMed**.
- Look at titles from the MeSH search. What word variations for video games do you see? (computer games, online gaming, etc.). Type synonyms & different word endings for a **text word search in search box**; use **OR** to combine, and click **Search**.
- Use History to find the 2 video games results (MeSH vs. text word). Clear the search box, then **combine set 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. Don't restrict to major topic yet. Include all subheadings (don't pick any). Check the box in front of Epilepsy, then **Send to** search box, and **Search PubMed**.
- Type **word variations** of **seizures/epilepsy** for a text word search.
- With History open, clear the search box, and **combine** the 2 epilepsy/seizures sets **using OR**, creating a seizures "superset".
- Clear the search box; use **AND** to combine the supersets for video games and seizures. Your history should be similar to this:
 

#11	Search (#10) AND (#4) Limits: Humans, English	7x
#10	Search (#8) OR (#9) Limits: Humans, English	79xxx
#9	Search epilep* OR seiz* Limits: Humans, English	78xxx
#8	Search "Epilepsy"[Mesh] Limits: Humans, English	60xxx
#4	Search (#2) OR (#3) Limits: Humans, English	2xxx
#3	Search (video OR computer OR electronic OR online OR digital) AND (game* OR gaming OR arcade*) Limits: Humans, English	2xxx
#2	Search "Video Games"[Mesh] Limits: Humans, English	7xx

- In History, click the number of "hits" for #11. Are results 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** (to keep History open). Look for your new result: "**Video Games**"[Majr] – with smaller results than before.
- Copy and paste the video games text words into the search box, and **add [ti]** after each word (title = major topic). Click Preview to see the new Title word result.
- Combine** the 2 new video games sets (**[Majr]** and **[ti]**) **using OR** (same topic).
- Combine the new **major-topic** video game "superset" with the epilepsy superset using AND.

Latest history should be like this:

- |     |  |     |
|-----|--|-----|
| #15 | Search (#10) AND (#14) Limits: published in the last 5 years, Humans, Engl | 3x  |
| #14 | Search (#12) OR (#13) Limits: published in the last 5 years, Humans, Engl  | 6xx |

- #13 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: published in the last 5 years, Humans, Engl 3xx
- #12 Search "Video Games"[Majr] Limits: published in the last 5 years, Humans, Engl 5xx

New results show stronger emphasis on video games.

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

Review articles summarize the published literature – saving your time!

- In **Search History**; click **# of hits** for the **video games (major topic) superset** (>600 items)
  - The result page shows a “Filter your results” option, where you can click **Review** (3x items).
- Are there any good “overview” articles on video games? Some reviews summarize the literature on a very narrow topic.

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

- Under **Type of Article** check **Randomized Controlled Trial** and **Meta-Analysis**.
- Be sure the Search box contains the search you want to limit. If not, type the correct set # in the search box. Click **Search**.

Results should consist of the publication types you requested.

- 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.
- Click (or scroll down to) **Find Systematic Reviews**

In a systematic review, the authors select a patient care question, critically evaluate reports of clinical trials on that question, and determine whether the evidence is strong or weak.

- In the search box, type **diet therapy type 2 diabetes** and click **Go**.
- Scan the results (over 100). Would they help you manage a patient with type 2 diabetes?

This feature uses PubMed **default** search, eliminating Major Topic and Subheading options. To retain advantages of MeSH Database search, do a search using MeSH/text words. Then type **systematic[sb]** in the search box – where[sb] stands for sub-set -- and use AND to combine with final results of the MeSH/text word search. E.g. **if set #14 = video games (superset, major topic)**, type:  
**systematic[sb] AND #14**

### **RELATED ARTICLES FEATURE**

- While viewing results from the last search, pick an item strongly relevant to the search question,
- Click the blue **Related Articles** 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 at the top of the list.

The Related Articles feature can be an **easy** way to find additional results.

**Note: Limits are suspended** in Related Articles search; re-check limits before continuing.

### **FINDING A SPECIFIC, KNOWN ARTICLE – EVEN IF INFORMATION IS INCOMPLETE**

Example of incomplete reference (need title, volume, pages):

Article by **Fisher** in the journal: **Epilepsia** in **2005**.

- Open Advanced Search and scroll down to **Search by Author....**
- Fill in boxes for **Author** (Fisher), **Journal** (Epilepsia) and **Date** (2005 to 2005)

- Results should show 3 papers on video game epilepsy by Fisher in Epilepsia, 2005.

### **OPENING ARTICLE FULL TEXT**

**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; **may not work**. SFX links are more reliable for Drexel full text.
- 2) **SFX Drexel Full Text** – Use this for full text available to Drexel students and staff.
  - Click a **blue and white “SFX Drexel Full text”** button. A **new browser window** should open (if not, try “click this link to open the document”).
  - In the **SFX Full Text Options** window, look below the **yellow “Drexel Availability”** bar. If you see **“Full Text”**, click **Go**.  
Another window opens (journal web site). If the article doesn’t open immediately, find the correct **journal issue** and **page**. Don’t remember the issue/page? Refer to the Drexel SFX 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 full text and SFX windows**, and return to PubMed.

**PLEASE HELP: notify library staff of problems with SFX links, so corrective action can be taken.**

**Safety net** – A few Drexel e-journals may have **NO Full Text link** in PubMed. As a back-up, keep a **2nd browser window** open, and use **Electronic Journal Locator** on library home page.

### **PRINTING, SAVING, AND EMAILING RESULTS**

- From Search history, pick a result with >20 hits, and display those results.
- To **print all items**  open **Display settings**. Select a format. **Summary(text)** and **Abstract(text)** formats eliminate graphics. Increase **results per page** to display all items (maximum 200). Click **Apply** and confirm that up to 200 results display. Now you can use your browser’s Print or Save option.

#### **Select results to print/save/email:**

- Click the checkbox of a few items to print/save/email.
  - Open the **[Send to]** menu and select **Clipboard**, where you can gradually accumulate results of several searches, for later printing, saving, emailing. Click **Add to Clipboard**.
- When ready to print/save/email, click **“items”** next to the **Clipboard icon**.  
A screen opens showing items on the Clipboard.
- Open **Display settings**. Select a format and **Apply** it.
- To **print**, use your browser buttons.
- To **save or email** results, open the **Send To** menu and select **File** (download), **Email** (up to 200 results), or **Collections** (save online after registering for MyNCBI).

**HELP** A reference librarian will be glad to help if you have PubMed problems or questions.