

(http://gateway.nlm.nih.gov)

Introduction

What?

• Allows you to simultaneously initiate searches in multiple NLM retrieval systems using a single search interface.

- The NLM Gateway was developed by the Lister Hill National Center for Biomedical Communications (LHNCBC) at the National Library of Medicine (NLM), located at the National Institutes of Health (NIH).
- Phased implementation:

Phase 1

Journal Citations: MEDLINE (PubMed), OLDMEDLINE

Book/Serials/AVs: LOCATORplus

Meeting Abstracts: HIV/AIDS-related meeting abstracts

Other Resources: HSRProj (Health Services Research Projects in Progress)

Consumer Health: MEDLINE plus Health Topics

MEDLINEplus Drug Information

DIRLINE (Directory of Health Organizations)

Later phases

ClinicalTrials.gov

HSTAT (Health Services/Technology Assessment Texts)

• NLM Gateway is the *only* search interface for the following resources:

Meeting abstracts

OLDMEDLINE

HSRProj

• Other systems (PubMed, LOCATOR*plus*, MEDLINE*plus*) will retain their own search interfaces.

Who?

Potential Gateway users could be:

- Users new to NLM's online resources who do not know what type of information is available or how to best search for it.
- Users who want "one-stop searching."

Where?

- Click on Health Information from NLM home page. Then click on NLM Gateway at next screen.
- http://gateway.nlm.nih.gov

Gateway home page

Sidebar



New Search takes you to the search screen.

- **Overview** provides a brief overview of the Gateway.
- What's New gives users the latest news about the Gateway.
- **Help** provides detailed information about how to use the Gateway.
- **FAQ** are Frequently Asked Questions about the Gateway.

Other NLM Resources:

- Order Documents is a link to the Loansome Doc feature that allows users to order full-text copies of articles from a local medical library (local fees and delivery methods may vary).
- Clinical Alerts expedite the release of findings from the NIH-funded clinical trials where such release could significantly affect morbidity and mortality.
- Click on *ClinicalTrials.gov* to access the NIH/NLM web site for current information about clinical research studies.
- **HSTAT** links to Health Services/Technology Assessment Text system.
- **IGM** links to Internet Grateful Med.
- **LOCATOR***plus* links to the NLM catalog of books, journals, and audiovisuals.
- **MEDLINE** plus links to the NLM consumer health web site.
- **PubMed** links to PubMed (MEDLINE).
- TOXNET links to NLM's web site of toxicology and hazardous chemicals databases.

Contact Us

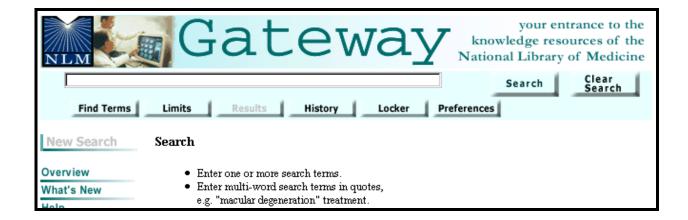
U.S. National Library of Medicine | National Institutes of Health | Department of Health & Human Services | Freedom of Information Act |

Privacy Policy

The Footnote

- Click on Contact Us to send an e-mail message to NLM Customer Service.
- Click on U.S. National Library of Medicine, National Institutes of Health, Department of Health & Human Services to access the Web pages of the agencies responsible for the creation and maintenance of the NLM Gateway.
- Click on **Freedom of Information Act** to link to NIH's Freedom of Information Act (FOIA) home page.
- Click on **Privacy Policy** to link to NLM's Copyright and Privacy Notice statements.

Searching



- Enter search terms in the query box.
- Click the Search button.



The query box is available from every screen. You do not need to return to the homepage to enter a new search.

Take Note:

Subject Searching Tips

- The default Gateway search is a subject search.
- You may enter one or more terms (e.g., "vitamin C" "common cold" "shortness of breath") in the query box and click the Search button.



To indicate a phrase enter double quotes (" ") around the phrase, e.g., "vitamin C". Be sure to include **all** phrases including author names, MeSH terms, etc. in double quotes.

Search Tip:

Search terms are automatically combined (ANDed) together.



Search Tip:

Search terms are mapped to MeSH (Medical Subject Headings) terms. For example, if you enter "heart attack", the phrase is mapped to "myocardial infarction". "Myocardial Infarction" is searched as a MeSH term in addition to "heart attack" being searched as text words. This mapping helps to provide more comprehensive results.

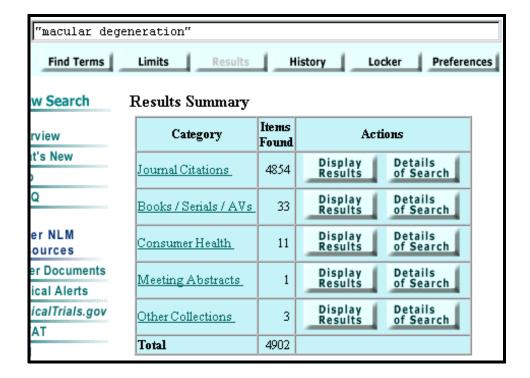
Results

Results Summary

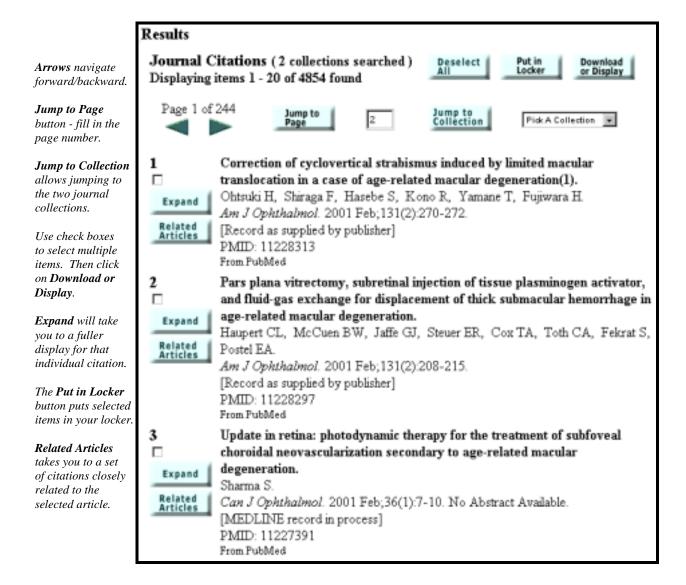
When you click Search, the Gateway displays the results summary that includes:

- the number of **Items Found** in each category
- a **Display Results** button for each category to see the retrieved items for each category
- a **Details of Search** button for each category to see how the Gateway translated your search strategy for each category

Results Summary for "macular degeneration" search:

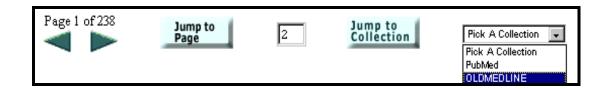


The Results screen after clicking **Display Results** for the **Journal Citations category**:



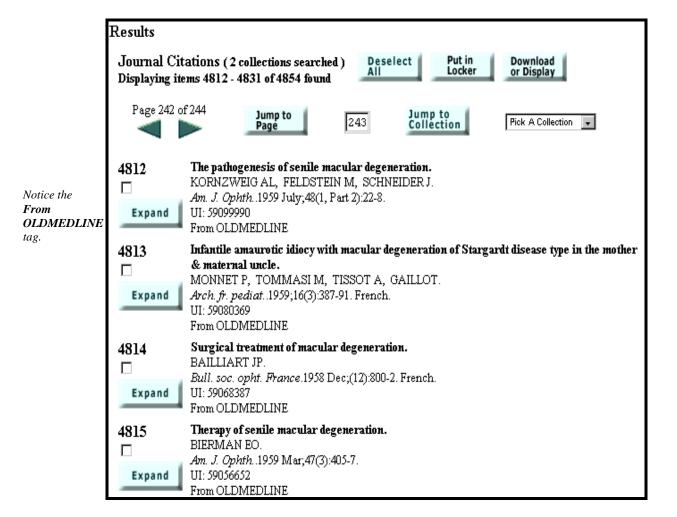
Jumping to OLDMEDLINE collection

- Use **Pick A Collection** pull-down
- Select **OLDMEDLINE**
- Click **Jump to Collection** button



Results:

• Gateway takes you to the screen where OLDMEDLINE citations begin.



Display Formats

- Gateway citations are initially displayed in a **Brief format**.
- The **Expanded Format** provides more information.



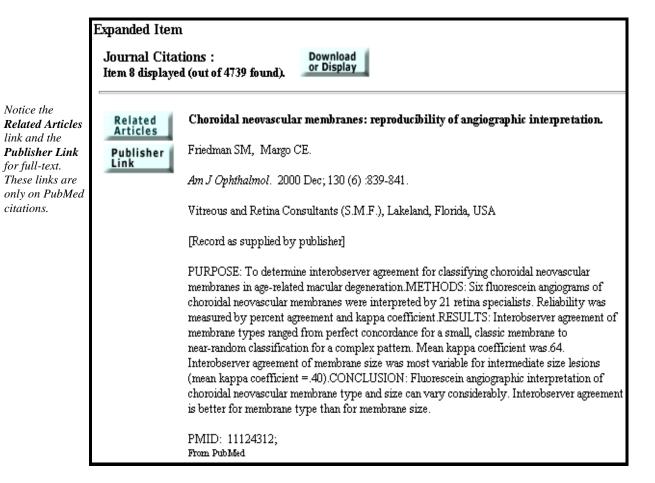
A table of all collections and the data elements found in the brief format and expanded format is available in Help.

Take Note:

Expanded Format

Notice the

citations.



Details of Search

• Details of Search lets you view your search strategy as it was translated using the Gateway's automatic term mapping and search rules and syntax.

• Details of Search contains warnings and error messages.

| PubMed | |
|---|-------|
| Translated Search | Items |
| ((("macular degeneration" [MeSH Terms]) OR (macular degeneration [Text Word])) AND (notpubref [sb])) | 4696 |
| OLDMEDLINE | |
| Translated Search | Items |
| ("macular degeneration" <exact> <in> KEYWORD_LIST OR "macular degeneration" <in> TITLE OR "macular degeneration" <in> PERSONAL_NAME_AS_SUBJECT OR "macular degeneration" <in> KEYWORD_LIST)</in></in></in></in></exact> | 4: |
| | |

Saving search strategies



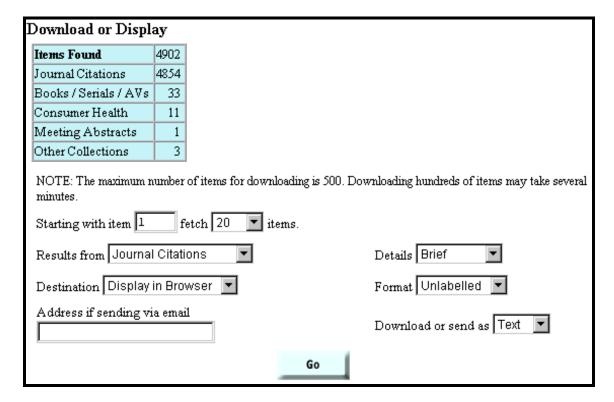
Take Note:

- Below the Details of Search is a **URL button**. To save the search strategy, click on the URL button. A new browser window will open with the Results Summary page for the search.
- Use the Bookmark or Favorites feature to save the search, and then close the browser window and continue with Gateway searching.

Download or Display

- Select citations you wish to download or display further.
- Click the **Download or Display** button.
- Make your selections from this screen.
- Click Go.

Download or Display screen:



- Use the **Fetch** pull-down menu to select the number of items to download or display. The maximum number of items for downloading/displaying at one time is 500.
- Use the **Results from** pull-down menu to select the items to be downloaded/displayed. Choices are All Categories, any single category, selected items, or Locker items. The default items are the items last viewed.
- Use the **Destination** pull-down menu to select the destination for the items to be downloaded or displayed. Choices are Display in Browser, Display for Printing, Save to File, and Send via Email. The default destination is Display in Browser.
- Use the **Details** pull-down menu to select the display format. Choices are Brief, Expanded, and Complete. The default details is Brief.
- Use the **Format** pull-down menu to select. The default format is Unlabeled.
 - Labeled = labels each field with the full field name Export = labels each field with the field name abbreviation. The export format is used for importing data into bibliographic management programs.
- Use the **Download or send as** pull-down menu to select Text or Html. The default is Text.

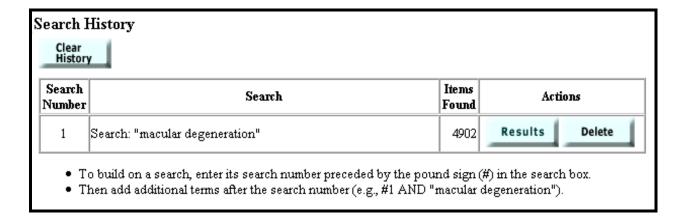
Download or Display Tips:

✓ Display for Printing allows you to display your citations as ASCII text without the sidebar menu and toolbars on each page.

- ✓ Use the print function of your Web browser to print all the information and citations displayed on your web page.
- ✓ You can only print the citations from the displayed page.
- ✓ If you choose Send via Email, you must enter an email address before clicking on the Go button.
- ✓ The Download or send as option applies only to the Save to File and Send Via Email Destinations.

Search History

- Click on History directly beneath the query box.
- Shows the search strategies and results for the last 25 searches run in the Gateway.
- Once the maximum number of searches is reached, the Gateway will remove the oldest search from the History to add the most current search.
- You can use the Search Number in a subsequent search (e.g., (#1 AND zinc).
- Your Search History will be lost when you close your web browser.

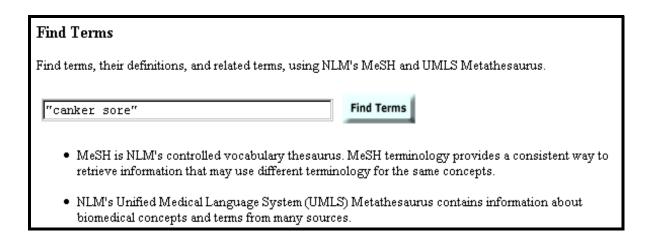


Find Terms

• Use Find Terms to select terms from the MeSH vocabulary and the Unified Medical Language System (UMLS).

• Click on Find Terms directly below the query box.

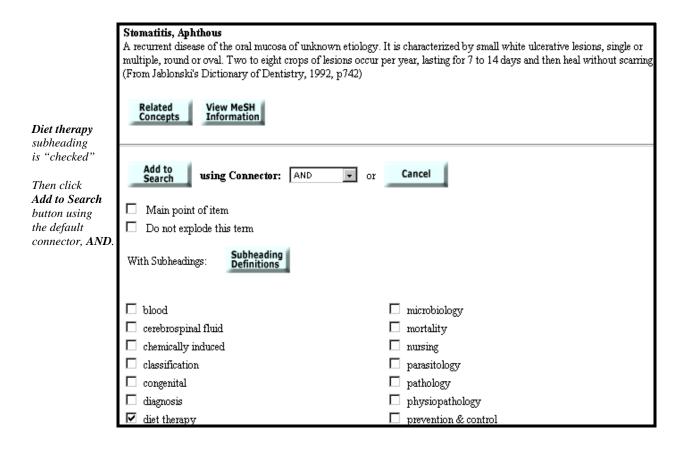
Here is the initial **Find Terms** screen where we want to find the term, "canker sore":



After typing in your term and clicking on Find Terms, you see the screen shown on the next page.

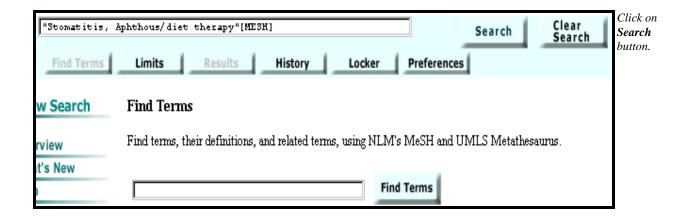
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Concept Details Note the definition. Stomatitis, Aphthous A recurrent disease of the oral mucosa of unknown etiology. It is characterized by small white ulcerative lesions, single or multiple, round or oval. Two to eight crops of lesions occur per year, lasting for 7 to 14 days and then heal without scarring. Click on Related (From Jablonski's Dictionary of Dentistry, 1992, p742) Concepts to see other related terms. View MeSH Information Related Concepts Click on View MeSH Information for additional details about Add to Search the term. using Connector: AND Cancel Use the Add to ☐ Main point of item Search button and the Connector ☐ Do not explode this term pull down to add Subheading Definitions this term to your With Subheadings: search strategy. Use the Main point ☐ blood microbiology of item checkbox to limit the term to cerebrospinal fluid ☐ mortality the main point of ☐ chemically induced nursing the article. Classification parasitology Use the Do not congenital pathology explode this term ☐ diagnosis physiopathology checkbox to turn off diet therapy prevention & control automatic explosion in PubMed. \square drug therapy psychology economics ☐ radiography Click on **Subheading** embryology ☐ radionuclide imaging **Definitions** if you need to check a subheading enzymology radiotherapy definition. ☐ rehabilitation epidemiology ethnology ☐ surgery Select subheading(s) etiology therapy to attach to your term by clicking in genetics ultrasonography the checkbox. ☐ history urine urine ☐ immunology veterinary metabolism ☐ virology The MeSH hierarchical tree structure(s) where the MeSH Tree 1 term is found. All MeSH Categories Diseases (MeSH Category) Stomatognathic Diseases Mouth Diseases Stomatitis Stevens-Johnson Syndrome Stomatitis, Aphthous Stomatitis, Denture Stomatitis, Herpetic



Canker sore search is now adjusted to add the **diet therapy** subheading:

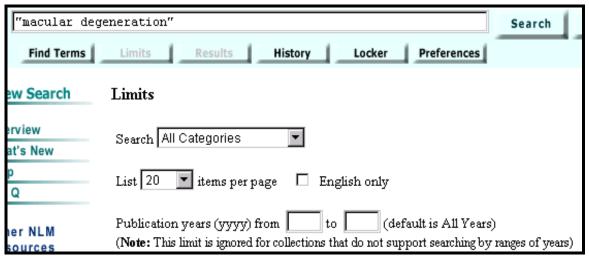
This brings you to the following screen. Click on **Search** to have the Gateway run your search.



Limits

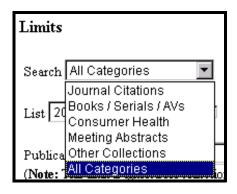
• Click on Limits directly below the query box.

Limits screen:



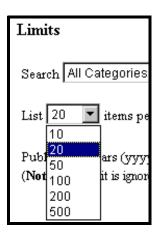
Search Categories

- Search All Categories is the default.
- Use the Search All Categories pull down to change the category searched.
- You may search all categories, or one category.



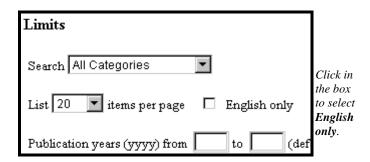
List Items per Page

- 20 items per page is the default.
- Use the List items per page pull down to change the number of items displayed.



English Only Limit

- Searching all languages is the default.
- Use the English only option to limit your search to English language items only.



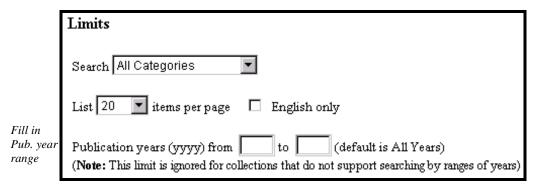


Take Note:

This limit is ignored in the MEDLINE plus Health Topics collection (Consumer Health), the MEDLINE plus Drug Information collection (Consumer Health), and the HSRProj collection (Other Collections).

Publication Date Limit

- Searching all years is the default.
- Use the from/to boxes to limit your search to specific publication years.
- One publication year or a year range of publication years may be searched.
- A publication year or year range must be searched using the format YYYY (e.g., from 1998 to 2000).





Take Note:

- This limit is ignored in the MEDLINE plus Health Topics collection (Consumer Health) and the MEDLINE plus Drug Information collection (Consumer Health).
- Only one publication year may be searched in the LOCATOR*plus* collection (Books/Serials/AVs). If a year range is entered, it will be ignored.

Locker

• A place to collect your selected search items, e.g., mark items and store them in your locker for printing, downloading or ordering.

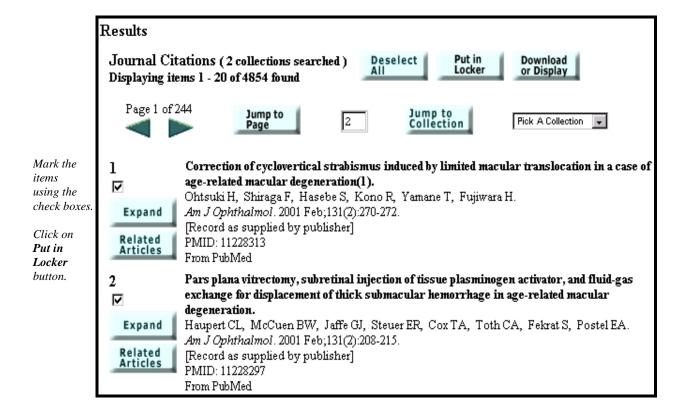
• You must login to use the Locker. Login requires a User ID and password. Registration is free.

Locker Login

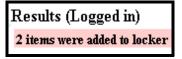
| | Login | | | | |
|---|--|--|--|--|--|
| | The Locker and Preferences features require a login. The Locker allows users to collect selected search items for printing, downloading or document ordering. The Preferences feature allows users to change their password and to set personal choices to customize their search session. | | | | |
| If you do not have a User ID, click on the Create New | | | | | |
| User ID button. OR | | | | | |
| | If you are an established user, enter your User ID and password and click on the Login button. | | | | |
| Enter your User ID and Password to | User ID: | | | | |
| Login. | Password: | | | | |
| | Login | | | | |

Marking and putting items in your Locker

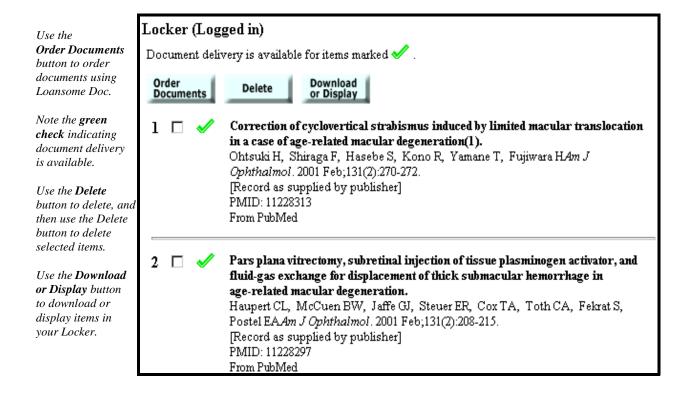
- Use the check boxes to select the items you wish to store in your locker.
- Click on **Put in Locker** button.



• Gateway confirms that the items are added to your Locker with the following message:



• Click on Locker directly below the query box to see the contents of your Locker.



Locker Tips:

- ✓ If an item is already in your Locker, it will not be added again.
- ✓ Locker items remain until you delete them.
- \checkmark There is a limit of 500 items that may be stored in the locker.

Preferences

• Click the Preferences button directly below the query box to access the Preferences page.

 Preferences allows you to change your password and customize your search settings, results screen, download and display options, and Locker settings to always be a particular value or setting.



- You must login to use Preferences. The same User ID/password works for both the Gateway Locker and Preferences features.
- Loansome Doc User IDs are valid and may be used here in the Gateway.



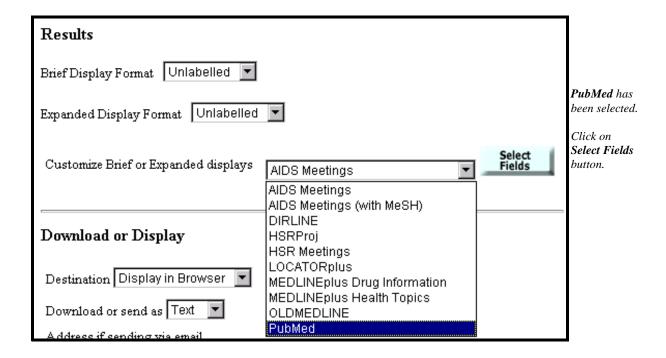
- Use the **Apply to this Session** button to apply changes only to your current Gateway session.
- Use the **Save Preferences** button to apply changes to your current and future Gateway sessions.
- Use the **Restore Defaults** button to return all settings to the Gateway default settings.
- Use the **Cancel** button to quit your preferences session without making any changes.

NOTE: The workbook pages will highlight two areas of Preferences. The Gateway's Help feature (available from the sidebar) clearly explains *all* the Preferences selections and options within each selection.

Results Preferences

• Use this Preferences option to customize your field selections in your displays for the various collections.

• Make your selection from the pull-down menu and click on the **Select Fields** button.



The graphic on this page and the following page show the PubMed field selection screens.

• The check marks represent the default field selections for the display formats.

| Customize Br | ief or Expanded | RuhMod Select |
|-----------------------|-------------------------|--------------------------------|
| displays | | PubMed Fields |
| Apply to this Session | Save R Preferences D | estore Cancel efaults |
| Brief Format | Expanded Format | Field Name |
| | V | Abstract |
| V | | Abstract Available |
| | V | Affiliation |
| V | V | Author |
| | | Citation Subset |
| | | Collective Name |
| | | Comment in |
| | | Comment on |
| | | Copyright Information |
| | | Country |
| | | Date Completed |
| | | Date of Electronic Publication |
| | | Date Revised |
| | | Digital Object Identifier |
| | | Entrez Date |
| | | Entry Date |
| | | Erratum in |
| | | Full Text URL |
| | | Gene Symbol |
| | V | Grant Support |
| | | ISSN |
| V | V | Issue/Part/Supplement |
| | | Journal Title Code |
| V | V | Language |
| | | MeSH Date |

Continuation of Define PubMed Fields screen:

| | ✓ | MeSH Terms |
|----------|----------|-----------------------------------|
| | | NLM Unique ID |
| | | Number of References |
| V | V | Pagination |
| | V | Personal Name As Subject |
| V | V | Publication Date |
| | | Publication History |
| V | V | Publication Status |
| | ✓ | Publication Types |
| | | Publisher Identifier |
| | | Publisher Identifier Controlled |
| | | Publisher Link |
| Required | Required | PubMed ID (PMID) |
| | ✓ | Record Status |
| | | Republished from |
| | | Republished in |
| | | Retraction in |
| | | Retraction of |
| | V | Secondary Source ID |
| | | Source |
| | V | Substances |
| | | Summary URL |
| V | V | Title |
| V | ✓ | Title Abbreviation |
| | | Transliterated / Vernacular Title |
| Required | Required | Unique Identifier |
| | | Update in |
| | | Update of |
| V | ┍ | Volume Issue |

Locker Preferences

• If you plan to order documents using the Gateway, you may wish to set the **Remove items** from your Locker after they have been ordered option as Locker items remain until you delete them.

| Locker | | | | | | |
|--------|--|--|--|--|--|--|
| | Remove items from your Locker after they have been ordered. | | | | | |
| | Send orders for the first ten unordered items in the Locker. | | | | | |

Searching by Fields

• All field qualifiers should be entered *after* the search term or terms (postqualification - same as PubMed).

- Field qualifiers must be in square brackets.
- Field qualifiers may be in upper or lower case.

Examples:

```
"common cold" AND "vitamin c"[mh] spanish [LANGUAGE]
"lead screening" [text] AND children
```



Take Note:

The Gateway's **Help** lists all available search fields and their available abbreviations.

Author Name Searching

- Enter the author name in the format last name plus initials (no punctuation), followed by the field qualifier (e.g., [au]).
- Author names *must* be enclosed in quotes.

Examples:

"Harris MI" [AU]

"Charron-Prochownik D" [au] "Siminerio LM" [au]

"Ferris FL 3rd" [author]

"Kovacs" [AUTHOR]



Search Tip:

Author searching has not been implemented for the **LOCATOR***plus* collection (Books/Serials/AVs) in the current Gateway release. Search using an author's last name without a field qualifier in order to attempt to search by author in LOCATOR*plus*.

You may search for investigators in the **HSRProj** collection (Other Collections) using the author field qualifier. Investigator names in the HSRProj collection (Other Collections) are displayed as full names, but investigator names must be searched in the format last name plus initials (no punctuation).

• The **MEDLINE***plus* **Health Topics** collection (Consumer Health) and the **MEDLINE***plus* **Drug Information** collection (Consumer Health) do not have authors.

Title Searching

- Enter one or more title words followed by the field qualifier (e.g., [ti]).
- Phrases *must* be enclosed in quotes.

Examples:

```
AIDS [TITLE] "sexually transmitted diseases" [TITLE] "lyme disease" [ti] "quality of life" [title] "managed care" [ti] quality [ti]
```

MeSH Searching

- Enter the MeSH term followed by the field qualifier (e.g., [mh]).
- MeSH terms that are multiple words *must* be enclosed in quotes.
- Subheadings may be entered in full, or the two character abbreviation may be used.
- To search for a MeSH term with one or more subheadings, enter the field qualifier (e.g., [MESH]) followed by the MeSH term, a forward slash, and one or more subheadings.
- If multiple subheadings are entered for one MeSH term, the subheadings are ORed together (e.g., "myocardial infarction/su/dt" [mh] is equivalent to "myocardial infarction/su" [mh] OR "myocardial infarction/dt" [mh].

Examples:

```
"lyme disease" [mh]
"macular degeneration/therapy" [mesh]
"myocardial infarction/su/dt" [mh]
"Lice" [MESH]
```



Search Tip:

Explosions: If a MeSH term or MeSH major topic is entered, it will be automatically exploded in PubMed (Journal Citations) only. For other collections, MeSH terms and MeSH major topics are *not* exploded.

Boolean Operators

- The Boolean operators AND, OR, and NOT are available.
- The default Boolean operator is AND.
- Boolean operators AND, OR, NOT must be in upper case (e.g., "vitamin C" OR zinc).
- The Gateway processes the AND and OR Boolean operators in a left-to-right sequence.
- The NOT operator is processed first.
- Nesting: You can change the order in which the Gateway processes the AND and OR operators in a search statement by enclosing the unit in parentheses. The terms inside the set of parentheses will be processed as a unit and then incorporated into the overall strategy.

Examples:

"common cold" AND ("vitamin C" OR zinc)

"hay fever" AND (Claritin OR Zyrtec)

Practice Exercises

- 1. Locate information on holistic health and AIDS or holistic health and HIV.
- 2. Using the Find Terms feature (MeSH Browser), find items about fibromyalgia.
- 3. Find meeting abstracts about multidrug-resistant tuberculosis. (Hint: Use Limits to restrict to the Meeting abstracts category.)
- 4. Find journal citations about using castor oil to induce labor. I'm particularly interested in articles published prior to 1966. (Hint: Jump to the OLDMEDLINE collection within the journal citations category).

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Suggested Answers

1. Locate information on holistic health and AIDS or holistic health and HIV.

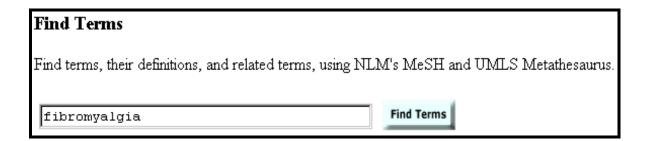


2. Using the Find Terms feature (MeSH Browser), find items about fibromyalgia.

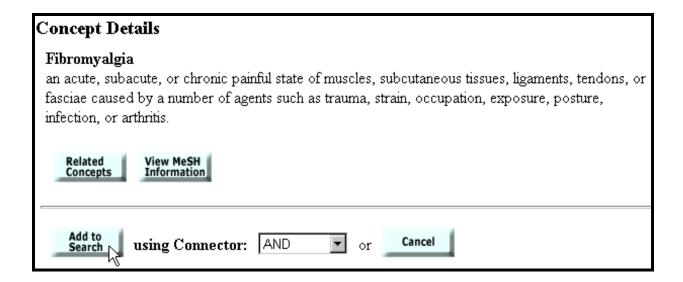
Step 1: Click Find Terms button on the features bar directly below the query box.



Step 2: Type in the term and click the **Find Terms** button.



Step 3: Click on the Add to Search button to add this term to your search query.



Step 4: The Gateway brings back the term you added to the query box. Click on **Search** to run your search.

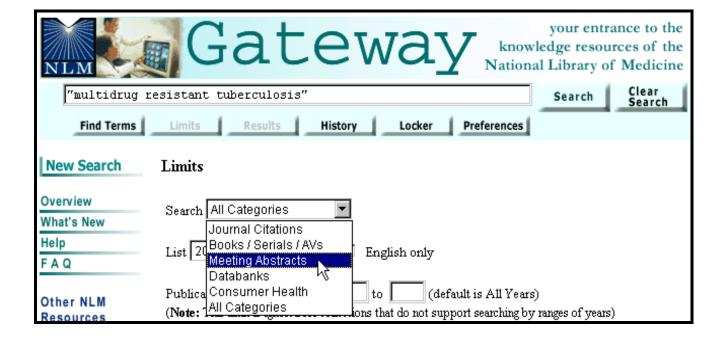


3. Find meeting abstracts about multidrug-resistant tuberculosis. (Hint: Use Limits to restrict to the Meeting abstracts category.)

Step 1: Click on Limits to reach the Limits screen.



Step 2: Type in the term, "multidrug resistant tuberculosis" in the search query box at the top of the screen and then select **Meeting Abstracts** from the **Search** pull-down menu. Click **Search**.

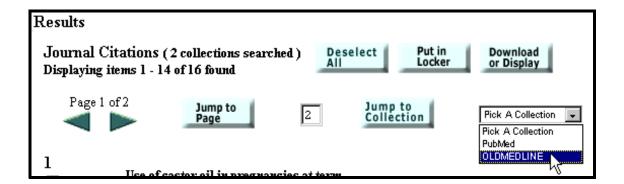


4. Find journal citations about using castor oil to induce labor. I'm particularly interested in articles published prior to 1966. (Hint: Jump to the OLDMEDLINE collection within the journal citations category).

Step 1: Type search in query box.



Step 2: On Results Display screen, select **OLDMEDLINE** from the **Pick a Collection** pull-down menu. Click on **Jump to Collection**.



<u>N</u> <u>O</u> <u>T</u> <u>E</u> <u>S</u>