



## PubMed

PubMed provides access to bibliographic information, including MEDLINE. Developed by the National Library of Medicine, an agency of the National Institutes of Health, PubMed provides access to over 18 million citations from the 1950s to the present. Not all citations are available in full text.

## Searching

PubMed has a straight-forward interface. You simply type in the terms you are interested in researching.

The screenshot shows the PubMed website interface. At the top, there is a navigation bar with tabs for 'All Databases', 'PubMed', 'Nucleotide', 'Protein', 'Genome', 'Structure', 'OMIM', 'PMC', 'Journals', and 'Books'. Below this is a search bar with a dropdown menu set to 'PubMed' and a 'for' field. The search bar is circled in red. To the right of the search bar are 'Go' and 'Clear' buttons, and a link to 'Advanced Search (beta)'. Below the search bar are buttons for 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'. On the left side, there is a sidebar with links to 'About Entrez', 'Text Version', 'Entrez PubMed', 'Overview', 'Help | FAQ', 'Tutorials', 'New/Noteworthy', 'E-Utilities', 'PubMed Services', 'Journals Database', 'MeSH Database', 'Single Citation', 'Matcher', 'Batch Citation Matcher', 'Clinical Queries', 'Special Queries', 'LinkOut', 'My NCBI', and 'Related Resources'. In the center, there is a message: 'To get started with PubMed, enter one or more search terms. Search terms may be [topics](#), [authors](#) or [journals](#).' Below this is a green box with the text: 'The NIH Public Access Policy May Affect You. Does NIH fund your work? Then your manuscript must be made available in PubMed Central. How? If you publish in one of [these journals](#), they will take care of the whole process. If you publish *anywhere else*, deposit the manuscript in PubMed Central via one of the options described at [publicaccess.nih.gov](#).' At the bottom, there is a footer: 'PubMed is a service of the [U.S. National Library of Medicine](#) that includes over 18 million citations from MEDLINE and other life science journals for biomedical articles back to the 1950s. PubMed includes links to full text articles and other related resources.'

For instance, if you were interested in hay fever causes, you simply type in hay fever causes in the search box and click "Go".

The screenshot shows the PubMed search interface with the search term 'hayfever causes' entered in the search box. The search bar is circled in red. The 'Go' button is visible to the right of the search box.

You will be taken to a list of the results. In this case there are over 5,000 citations returned.

NCBI PubMed A service of the U.S. National Library of Medicine and the National Institutes of Health

Search [PubMed] for [hayfever causes] Go Clear Advanced Search (beta) Save Search

Limits Preview/Index History Clipboard **Details**

Display Summary Show 20 Sort by Send to

All: 5707 Review: 671

Items 1 - 20 of 5707 Page 1 of 206 Next

- 1: Rennin AJ, Zachariae DM.** Sublingual immunotherapy. *N Engl J Med.* 2008 Aug 21;359(3):669-70. author reply 870. No abstract available. PMID: 18716310 [PubMed - indexed for MEDLINE]
- 2: Pipkorn P, Costantini C, Reynolds C, Wall M, Drake M, Sanico A, Proud D, Togias A.** The effects of the nasal antihistamines olopatadine and azelastine in nasal allergen provocation. *Ann Allergy Asthma Immunol.* 2009 Jul;101(1):82-9. PMID: 19680189 [PubMed - indexed for MEDLINE]
- 3: Mosges E.** [Allergic rhinitis and sinusitis--more than only a coincidence]. *Dtsch Med Wochenschr.* 2008 Jul;133 Suppl 3:SB4-7. Review. German. No abstract available. PMID: 18642236 [PubMed - indexed for MEDLINE]
- 4: Tsunenaga M, Yamaji T, Kozutsumi D, Murakami R, Nagai H, Kino K.** A new murine model of allergic rhinitis by repeated intranasal Cry j 1 challenge. *Biomed Res.* 2008 Jun;28(3):119-23. PMID: 18614544 [PubMed - indexed for MEDLINE]
- 5: Kasperkio Zajac A, Brozos G, Rogala B.** Seasonal changes in platelet activity in pollen-induced seasonal allergic rhinitis and asthma. *J Asthma.* 2008 Aug;45(6):485-7. PMID: 18612001 [PubMed - indexed for MEDLINE]
- 6: Anuradha D, Vijayarajeshwari V, Latha GS, Priya VH, Muthy KJ.** Profile of pollen allergies in patients with asthma, allergic rhinitis and urticaria in Hyderabad. *Indian J Chest Dis Allied Sci.* 2006 Jul-Sep;40(3):221-2. No abstract available. PMID: 18610684 [PubMed - indexed for MEDLINE]
- 7: Lee CH, Ho JH.** Recent advances in immunotherapy of allergic rhinitis.

If you are wondering what PubMed actually searched for, click on the “Details” tab at the top of the page.

Limits Preview/Index History Clipboard **Details**

**Query Translation:**

```
(('rhinitis, allergic, seasonal'[MeSH Terms] OR ('rhinitis'[All Fields] AND 'allergic'[All Fields] AND 'seasonal'[All Fields]) OR 'seasonal allergic rhinitis'[All Fields] OR 'hayfever'[All Fields]) AND ('etiology'[Subheading] OR 'etiology'[All Fields] OR 'causes'[All Fields] OR 'causality'[MeSH Terms] OR 'causality'[All Fields]))
```

Search URL

**Result:**  
5707

**Translations:**

```
causes "etiology"[Subheading] OR "etiology"[All Fields] OR "causes"[All Fields] OR "causality"[MeSH Terms] OR "causality"[All Fields]
hayfever "rhinitis, allergic, seasonal"[MeSH Terms] OR ("rhinitis"[All Fields] AND "allergic"[All Fields] AND "seasonal"[All Fields]) OR "seasonal allergic rhinitis"[All Fields] OR "hayfever"[All Fields]
```

**Database:**  
PubMed

**User query:**  
hayfever causes

As you can see, PubMed took the terms you entered and converted them into terms from MeSH.\* The addition of many terms from MeSH led to so many results. If you are looking to narrow your search, you may want to consider using the Advanced Search function or creating searches using the MeSH database.

\* Much like Library of Congress Subject Headings but developed by the National Library of Medicine.

## Advanced Search

PubMed's advanced search allows you to search using simple terms like the initial search, but also allows you to limit your search.<sup>†</sup> You can limit your search by publication, topics, language or fields.

The screenshot displays the PubMed Advanced Search interface. At the top, there are three search fields: 'Search Author for', 'Search Journal for', and 'Search Publication Date for'. The 'Publication Date' field includes a date range 'to present' and a note '(yyyy/mm/dd - month and day are optional)'. Below these fields is a link 'Add More Search Fields' and 'Clear All' and 'Search' buttons.

The 'Limit by Topics, Languages, and Journal Groups' section contains several filter panels:

- Full Text, Free Full Text, and Abstracts:** Includes checkboxes for 'Links to full text', 'Links to free full text', and 'Abstracts'.
- Humans or Animals:** Includes checkboxes for 'Humans' and 'Animals'.
- Gender:** Includes checkboxes for 'Male' and 'Female'.
- Type of Article:** Includes checkboxes for 'Clinical Trial', 'Editorial', 'Letter', 'Meta-Analysis', and 'Practice Guideline'.
- Languages:** Includes checkboxes for 'English', 'French', 'German', 'Italian', and 'Japanese'.
- Subsets:** Includes checkboxes for 'Journal Groups' (with sub-options: 'Core clinical journals', 'Dental journals', 'Nursing journals') and 'Tennis'.
- Ages:** Includes checkboxes for 'All Infant: birth-23 months', 'All Child: 0-18 years', 'All Adult: 19+ years', 'Newborn: birth-1 month', and 'Infant: 1-23 months'.

Each filter panel has a 'CLEAR' button. At the bottom of this section are 'Clear All' and 'Search' buttons.

The 'Index of Fields and Field Values' section at the bottom has a text input field with the instruction 'Add Term(s) to the search box or view an index.' Below it is a dropdown menu set to 'All Fields' and 'Preview' and 'Index' buttons.

There are many limiters for you to choose from, including articles about humans or animals, clinical trials, ages involved in the article and many more. However, your original search terms do not change, so if you are unhappy with how PubMed interpreted your terms, you will need to change your search terms.

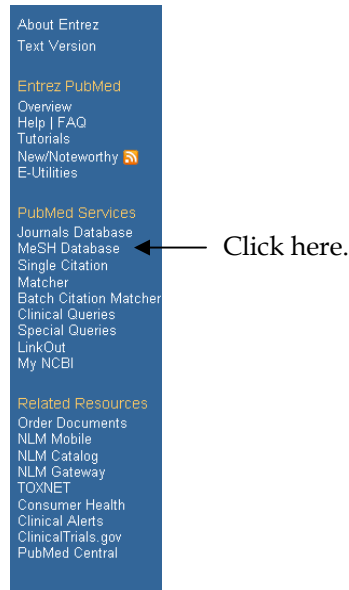
## Using the MeSH database

The MeSH database allows you to refine your search to the exact terms you are interested in. If you look at the search above, you'll see that PubMed interpreted "hayfever" as "rhinitis, allergic, seasonal," ("rhinitis" AND "allergic" AND "seasonal") or "seasonal allergic rhinitis" or "hayfever," leading to so many returns. While you may want to have a large number of results to choose from, 5,000 are too many.

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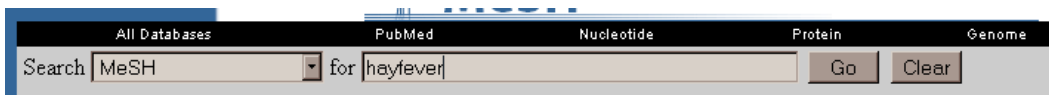
<sup>†</sup> The Advanced Search is still in Beta, so there may be changes to display and functionality.

To choose the MeSH you would like to use, click on the MeSH Database link in the left panel.

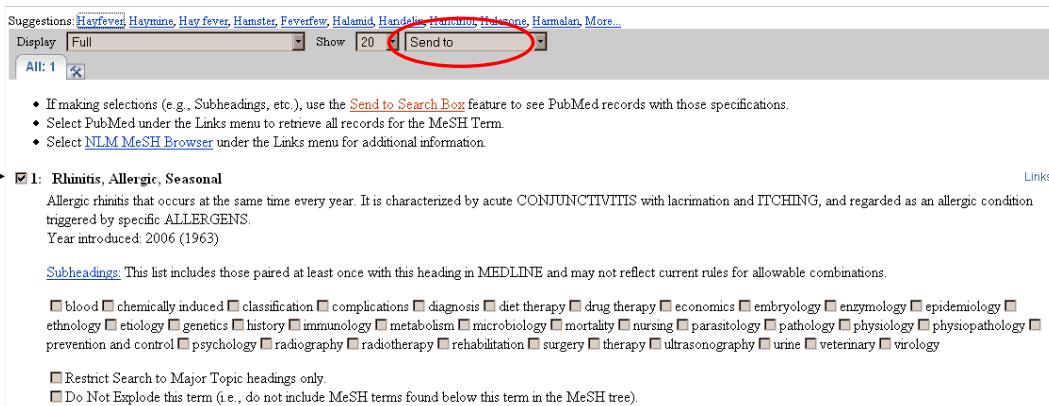


Using the same interface, you can type in the term you are looking for. If you are looking for more than one term, you will need to conduct a MeSH search for each term. The following instructions will take you through that process.

In this case, search for “hayfever.”

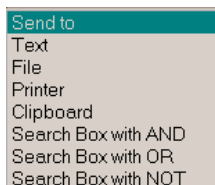


As you can see from the results, hayfever is not a simple term to study. You can further limit the search to specific subheadings, to major topics only and to only the term chosen.

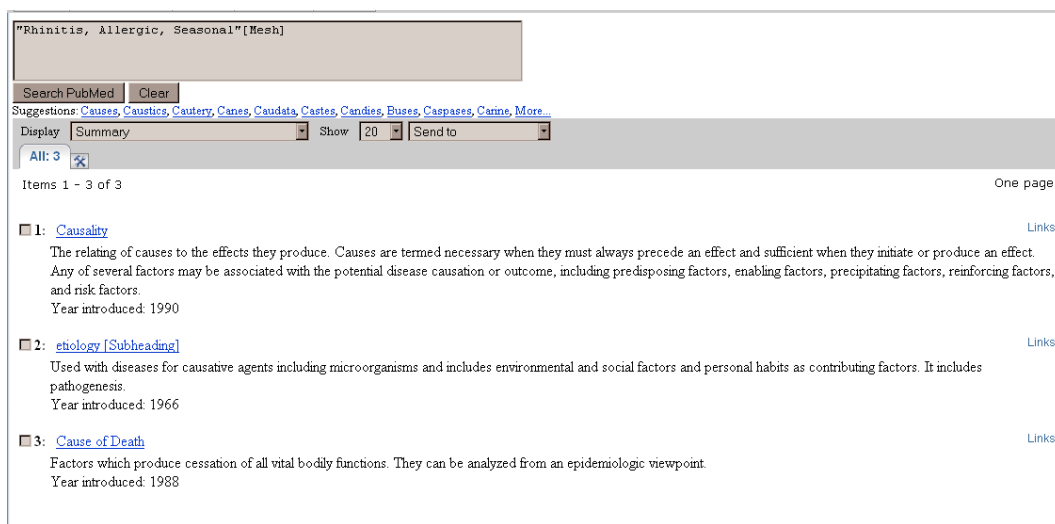


Click the box to mark the record.

Since the search also needs to be limited to the causes of hayfever, mark the record, then click on the “Send to” drop down at the top of the page. From the drop down choose “Search box with AND.”



To search for the next phrase, click “Clear” near the search box, and type in “causes.” In this case, three terms are returned.



Causality most closely fits the definition of “causes.” Mark the record, and from the “Send to” drop down choose “Search Box with AND.” Notice the search box is now populated with both MeSH terms selected. Click on “Search PubMed” to conduct the search. This time the search returned 300 citations.

## Results

Since not every citation in PubMed is available from the database, it is important to be able to discern what is and what is not available. If an article is available, there will be a link indicating such.

To see the full citation information, click on the link created by the authors’ name. You will see whatever information is available, as well as additional information created by PubMed, such as related articles. If you are looking at the full record, you will see a link on the right side directing you to the full text.

PubMed is not compatible with the “Find It” tool, so to see if the library subscribes to a particular journal, use the “E-Journal Finder” tool located in the left pane of the library’s

website. From there you can determine if the article is available in full text through the library or if you will need to order the article through ILL.

## Clinical Queries

It is also possible to search PubMed for clinical studies using the Clinical Queries link. Choose the categories you are interested in. You can be as specific or broad as you need.

**PubMed Clinical Queries**

PubMed   Nucleotide   Protein   Genome   Structure   OMM   PMC   Journals   Books

This page provides the following specialized PubMed searches for clinicians:

- [Search by Clinical Study Category](#)
- [Find Systematic Reviews](#)
- [Medical Genetics Searches](#)

After running one of these searches, you may further refine your results using PubMed's [Limits](#) feature.

Results of searches on these pages are limited to specific clinical research areas. For comprehensive searches, use [PubMed](#) directly.

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**Search by Clinical Study Category** ↑

This search finds citations that correspond to a specific clinical study category. The search may be either broad and sensitive or narrow and specific. The search filters are based on the work of [Haynes RB et al.](#) See the [filter table](#) for details.

Search

Category	Scope
<input type="radio"/> etiology	<input checked="" type="radio"/> narrow, specific search
<input type="radio"/> diagnosis	<input type="radio"/> broad, sensitive search
<input type="radio"/> therapy	
<input type="radio"/> prognosis	
<input type="radio"/> clinical prediction guides	

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**Find Systematic Reviews** ↑

For your topic(s) of interest, this search finds citations for systematic reviews, meta-analyses, reviews of clinical trials, evidence-based medicine, consensus development conferences, and guidelines.

For more information, see [Help](#). See also [related sources](#) for systematic review searching.

Search

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**Medical Genetics Searches** ↑

This search finds citations and abstracts related to various topics in medical genetics. See the [filter table](#) for details.

Search

Category

The results page will indicate if there are any searches fitting your parameters as well as any related articles available.