

# PRACTICE PERFECT

INFORMATION TECHNOLOGY

## What's New With PubMed: An Insider's Guide

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In 1997, the U.S. National Library of Medicine (NLM) opened its PubMed database to anyone with a modem. Physicians, researchers, and the public quickly embraced this online option, and the NLM stopped publishing its huge *Index Medicus* in 2004.

And the experts at the National Center for Biotechnology Information—the NLM division in charge of PubMed—have not let this massive database stand still. Three examples of recent improvements are the addition of a left sidebar that lets you modify search queries more easily, the debut of downloadable apps that have been optimized for smartphones, and new search algorithms that are less fussy about syntax. “We’ve really improved PubMed a lot with advanced searching algorithms,” said Janet R. Zipser, BA, MSLS, coordinator of PubMed training for NLM. “We’re trying to make it so that you can ‘Google-ize’ your searches more. Now, you can throw pretty much anything into the search box and get several good results.”

Here’s a quick summary of how you can get more out of PubMed.

### Sign Up for My NCBI

It only takes a minute or two to set up your own user ID and password for My NCBI. Go to [www.pubmed.gov](http://www.pubmed.gov) and click on the “Sign in to NCBI” link in the top right corner. You can then create a personalized search portal that seamlessly integrates with PubMed.

**Save your search results.** Suppose you are assembling a bibliography for a slide show or research report. If you do a PubMed search *without* logging in to My NCBI, all your searching information disappears when the browser window closes—so you’ll have to start from scratch in your next session. My NCBI allows you to save search results as a “Saved search,” a “Collection,” or “My Bibliography.”

**My NCBI records your activity.** Did an intriguing citation send you off on a tangent? Instead of redoing the original search, you can look at the “Recent activity” recorded by My NCBI. A truncated version of this is at the bottom of the right-hand sidebar on any search results page. Click the “See more” link to see a longer list.

**Impatient?** If signing in at My NCBI feels onerous, you can cut the process down to a single step. Just check the box on the My NCBI login page that reads, “Keep me signed in unless I sign out”—and never sign out. Then, bookmark your My NCBI page for speedy access. (For security, eschew this option on a public computer.)

### PubMed Health

Are you aware of the NLM’s database on comparative effectiveness research? PubMed Health ([www.ncbi.nlm.nih.gov/pubmedhealth](http://www.ncbi.nlm.nih.gov/pubmedhealth)) serves both health professionals and the general public. It contains citations, summaries, and, in some cases, full text from more than 5,000 reviews and other publications (some not indexed by PubMed). Content includes the well-respected analyses by the Cochrane Collaboration, as well as detailed health technology assessments made by U.S., U.K., and German government panels. The collection is restricted to reviews undertaken or updated during roughly the last 10 years.

**Faster Searching, Better Results**  
**Use the sidebars to optimize the filter terms.** The new layout of results pages has two sidebars. The right-hand sidebar includes “Recent activity” and “Search details.” The left-hand sidebar contains clickable “filter” categories (previously called “limits”), such as article type, publication date, text availability, and journal category.

However, one of the most common mistakes that newcomers make is to activate too many or too few filters when searching, said Ms. Zipser. Filter settings can be changed by clicking the “clear” link that is adjacent to each fil-



Each month, Practice Perfect addresses one of the AAOE’s seven key competencies.

ter category or by toggling the checkbox that appears next to the category on the “Manage Filters” page, she said. (A link to this page is at the top of the right-hand sidebar when search results are on screen.)

**Clear your filters.** If you filter a search, those filter settings will apply to any subsequent searches unless you manually clear them or end the session.

**Avoid using quotation marks.** The NLM indexing system applies medical subject headings (MeSH) to each journal article. If you use quotation marks in the search field, the search engine “turns off” these MeSH terms, and you are likely to get fewer results. For instance, a search for “*vitrectomy*” AND “*small pupil*” returned seven results, but a search for *vitrectomy small pupil* returned 28 results. An exception to the “no quotes” rule would be if you know that a specific phrase appears in an article you are trying to locate.

**Use MeSH terms to focus your search.** If you find an article that seems totally on target, you can use the MeSH terms to find similar articles. First, click the “MeSH Terms” link at the bottom of the article’s abstract. This will provide a list of MeSH terms that were applied to that article. Any terms that are accompanied by an asterisk were designated “major MeSH headings” for that article. Click on those terms to add them to your search query and then filter the search so you only see results that match those major MeSH headings. (In the left sidebar, click “Show additional filters” and then “Search fields.”) This can provide you with a very powerful, specific search query.

**Use “Search details” to improve search accuracy.** “On the right sidebar, there is a ‘Search details’ section, which shows how PubMed translated the query you typed into the search box,” Ms. Zipser said. “You don’t have to understand the algorithm. But if you’re getting a retrieval that’s puzzling to you, click on the ‘See more’ link. Sometimes it will show that PubMed couldn’t find the term you searched, so you can think about

## NLM on the Go: A Potpourri of Mobile Tools

Clutter-free mobile-optimized search pages and downloaded apps from the National Library of Medicine are easy on the eyes. They load quickly in the browser window and are compatible with most types of smartphone. Consequently, NLM experts increasingly are designing Web-based portals, specialty databases, and free, downloadable apps optimized for mobile devices.

The full list of NLM tools for going mobile, including Web links, is at [www.nlm.nih.gov/mobile/](http://www.nlm.nih.gov/mobile/). And if you use your mobile device to visit [www.nlm.nih.gov/mobile-app](http://www.nlm.nih.gov/mobile-app), you will be provided with a list of apps that work on your particular device.

Here are a few examples of what’s available:

- **Drug Information Portal Mobile** (provides information on more than 31,000 drugs, augmented by links to other reliable websites).
- **DailyMed** (high-quality drug info, including FDA package inserts).
- **Embryo** (visual exploration of human embryo development).
- **TOXNET Mobile, HazMap Mobile** (mobile-optimized Web access to information, respectively, about toxicology and environmental hazards, and about workplace risks from chemicals and biologics).
- **Turning the Pages Mobile** (a free iPad-only app, for viewing beautiful historical medical texts in the library’s collections).

searching with another term.”

**Look for “Related citations.”** PubMed automatically generates “Related citations” Web links, and these provide an easy way to make a so-so search more successful. Scan the results page for an on-target citation and click the “Related citations” link.

**Still can’t find what you need? Click on an author name.** Sometimes even a well-constructed search will not include a specific, relevant paper that you know exists. An indirect but effective solution to this dilemma begins by looking in the search results for another paper written by the same author. Display the citation in abstract format and then click on the author’s name in the list of investigators. This will pull up every PubMed record that has that researcher listed as a coauthor. Scan the list for the citation you have been hunting.

**Control what your results look like.** By default, PubMed will display search results in groups of 20, which separates long lists into multiple Web pages that must be loaded one at a time. Or you can go to the “NCBI Site Preferences” settings of your My NCBI page and choosing a larger display number (maximum: 200 per page). This also is where you can control the sorting order of citations.

**Stay up to date with PubMed’s help.** My NCBI can help ensure that you won’t miss newly published papers about topics of interest. You can

- Create a “Saved search,” which stores the search strategy on your My NCBI Web page.
- Arrange to receive e-mail notifications, at regular intervals, listing the new papers PubMed has found on the selected topic. (You will be asked if you want to receive such e-mails after you save a search.)
- Use an RSS feed to be notified of new papers. (After performing the search you want to use, click on the “RSS” box below the search field.)

### Too Busy? Master PubMed, Three Minutes at a Time

NLM’s online training tools include videos that break PubMed lessons into bite-sized chunks lasting three minutes or less. “We are trying to give people succinct ‘just-in-time’ online training options,” Ms. Zipser said. Watch a Quick Tour (Adobe Flash required), and find other tutorials at [www.nlm.nih.gov/bsd/disted/pubmed.html](http://www.nlm.nih.gov/bsd/disted/pubmed.html).

**Got tips to share?** Visit this article at [www.evenet.org](http://www.evenet.org) and add your tips to the comments section.

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*Ms. Zipser is employed by the NLM.*