

Phrase Searching in PubMed Tutorial: Handout

How does PubMed process a phrase?

1. Automatic Term Mapping (ATM) attempts to map the phrase to an appropriate MeSH term.
2. PubMed splits the phrase into individual terms, combined with AND, in all fields.
3. PubMed searches for terms as a phrase in all fields.

I get no results or irrelevant results when I search PubMed with a phrase. What should I do next?

Search for the phrase enclosed in double quotes (e.g. **“search terms”**). This prompts PubMed to look for it in the phrase index (a collection of phrases that appear in PubMed). If there is a match, PubMed will search the complete phrase in all fields.

This bypasses and turns off ATM, and your search will not include term variations.

My phrase is not in the phrase index. What should I do next?

Use a proximity search with a distance of 0 (**“search terms”[tiab:~0]**) to search for words in a phrase, next to each other but in any order, in the Title[ti], Title/Abstract[tiab], or Affiliation[ad] fields.

This bypasses and turns off ATM, and your search will not include term variations.

How do I search for variations on a phrase, like alternate spellings or the words within a specific proximity of each other?

- To search for alternate endings and spellings, use a wildcard(*) in terms within a phrase. Enclose the phrase in double quotes. (e.g. **“vaccin* schedul*”**)
- To search for words in a phrase within a specific number of words of each other in any order, use a proximity search (**“search terms”[tiab:~N]**) in the Title[ti], Title/Abstract[tiab], or Affiliation[ad] fields. (e.g. **“rationing healthcare”[tiab:~2]**)

Both techniques bypass and turn off ATM, and your search will not include term variations.

I need to determine if an exact phrase appears anywhere in PubMed. How do I do that?

Connect your terms with a hyphen and enclose the entire phrase in double quotes (e.g. **“search-terms-phrase”**). This will prevent PubMed from splitting your phrase apart and processing each term individually.

This bypasses and turns off ATM, and your search will not include term variations.

How do I search in a specific field for an exact phrase?

Tag the phrase with your search tag. Do not add any other punctuation, like double quotes. (e.g. **search terms[ti]**)