**PubMed: MeSH-only searching**

You can search PubMed by using Medical Subject Headings (MeSH). MeSH headings are applied to each article indexed in PubMed by individuals who work for the US National Library of Medicine. Headings are selected systematically from a reputable controlled vocabulary/thesaurus. MeSH-searching can often help researchers find a more refined and targeted set of results that those retrieved through a standard ‘key word’ search. Also, unlike standard searching, MeSH searching can remove the need to enter multiple alternative terms to describe the same concept. *It is best practice to try both “standard” and MeSH-only approaches to searching in PubMed.*

For the following exercise, please search PubMed using:

a) search terms that feature within the following instructions OR...
b) search terms associated with your own research area OR... c) using both these approaches.

1. **Connect to PubMed**

   In this exercise, we will compare results from both “standard” and MeSH searches. It is best to connect to PubMed via a link in the Library website as follows:

   - Go the Library homepage: [https://library.bath.ac.uk/home](https://library.bath.ac.uk/home)
   - Click the relevant link for your subject in the 'resources for your subject' section.
     - Click the ‘search the literature’ button and on the next page, you will find links to databases, one of which is likely to be PubMed. If not, you will find a link in the Library Catalogue.
   - Connect to PubMed.

2. **Standard searches**

   Click the ‘Advanced’ link just below the search box. Search PubMed for references on the rehabilitation of injuries to the achilles tendon using the 'standard' key word approach you might use to search most databases i.e. searching by entering key words that you might expect to find in an article title, abstract or other fields within a database record. Do not search only for known MeSH headings.

   **Tips:** with a “standard” search of PubMed, it is often useful to try entering key words both with and without asterisks. With many databases, the use of an asterisk increases the number of results but that is not always the case with PubMed. As with other databases, it can be useful to use multiple search boxes to help organise your search terms and retrieve sets of results that are more relevant.

   **To find out more** about standard key word searching, please refer to the basic PubMed guide at: [http://www.bath.ac.uk/library/pass.bho/infoskills/pubmed.pdf](http://www.bath.ac.uk/library/pass.bho/infoskills/pubmed.pdf)
Q: How many records did your searches find? ______

3. MeSH-only searches

3. Near the top left-hand corner of the screen is a drop down box which defaults to 'PubMed'. Click on this & select MeSH.

4. In the search box, type achilles tendon and click Search. With MeSH searches, you enter only one search term at a time and you don’t use asterisks. If you spell 'Achilles' with one ‘L’, PubMed will still recognise this.

5. You should now see the MeSH entry for Achilles tendon. MeSH entries include subheadings which you can opt to select by clicking in the relevant boxes. For this example, just select the subheading Injuries. You might also like to see where “Achilles tendon” sits within the MeSH “tree” of terms.

6. Then select Restrict to MeSH Major Topic which appears beneath the subheadings. By doing this, you have chosen to retrieve only those results where injuries to the Achilles tendon appears as a major theme within each paper.
7. Click **Add to Search Builder**; a button to the right of the screen. You will notice that your terms are added to the ‘Search builder’ box. **Don’t** click Search PubMed.

8. Now search for **rehabilitation** in the top search box. This search retrieves a number of possible MeSH headings related to rehabilitation. For this exercise, just click on the first heading, ‘rehabilitation’ (for this exercise, don’t tick the box). This will take you to its full MeSH entry including subheadings such as immunology and injuries. You might also like to see where the concept Rehabilitation sits within the MeSH “tree” of terms (e.g. it covers Exercise Therapy, Resistance Training and many other areas).

![MeSH search screenshot](image)

9. This time, we will opt to only select **Restrict to MeSH Major Topic**. Then click **Add to Search Builder**.

Finally, click **Search PubMed** to retrieve your results (i.e. the combined results of both concepts).

10. You may find that your search has retrieved too many records or that you want to refine the results to reflect a more specific research area. If so, you can use the **filters** in the left-hand column to limit your results.

11. **Select the appropriate filters** to limit the results to research on adult males. You will need to click ‘additional filters’ at the top of the left-hand column, select age and gender and then click Show.

**Q:** How many records did your search find? ______

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12. Click on Male and search. Then click 19+ and search.
Q: How many records did your search find this time? ______

If you are undertaking any further searches, click Clear All located beneath the filters.

13. Viewing full articles: click on any titles of interest to view any potential abstracts and to see whether or not the full-text of the paper is available. You can check the right-hand corner of the screen for a publisher’s link to the paper. If no such link is provided, search the Library Catalogue for the journal title in which it was published: http://www.bath.ac.uk/library/ - To find out which volumes/issues of a journal are provided: for an online journal, click the catalogue record’s “view online” tab and for a printed journal, click the catalogue record’s ‘online access’ tab.

14. If the full paper is unavailable for viewing (e.g. if we don’t subscribe to the relevant journal): please consider using one of the following services, ‘Bath Copies’ and ‘Inter-Library Loans’ (please use the latter with care – each request costs the Library c£12). More information can be found at http://www.bath.ac.uk/library/subjects/resources/full-text-access.html


PubMed also enables you to save searches for retrieval at a later date, and to set up email alerts. To do this, you need to first register with My NCBI; this is an option in the top right corner of the screen.

For further information, please contact your Subject Librarian

Peter Bradley, 31/01/2019