

Literature Search in Prosthetics and Orthotics at the University of Michigan

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This document is a guide to get you started searching for literature. The first section is a broad overview, followed by database specific step-by-step instructions. Good Luck!

I. OVERVIEW

1. Why perform a literature search?
 - i. *How will you know what to do if you don't know what's already been done??* See what has been researched and identify areas which need research
 - ii. Learn accepted ways of doing things
 - iii. Learn new ways of doing things

2. Resources
 - i. Taubman Medical Library <http://www.lib.umich.edu/hsl/>
 - ii. Whitney Townsend, O&P Librarian at Taubman Medical Library. whitneyt@umich.edu, Phone: 615-7898
 - iii. Power Point for basic info:
[S:\DEPT\OrthoticsProsthetics\Share\EndNote Libraries Literature Search Basics\(Pros&Orth\).ppt](#)

3. Recommended Databases
 - i. JPO
 1. Pros: Quick, easy, available, and specific
 2. Cons: Limited, prosthetic and orthotic only, generally less stringent research
 - ii. RECAL: P&O specific database from University of Strathclyde
 1. Pros: Most comprehensive P&O database, from early 1900's, even includes O&P Business News.
 2. Cons: Articles can be hard to get, doesn't interface with UMich, STOPPED UPDATING AFTER DEC 2007 (NO new articles after that will be included)
 - iii. ISI Web of Science
 1. Pros: easy to track citations, easy to export to reference software, narrow by subject, reverse citation capabilities
 2. Cons: keyword (Topic) searching only!
 - iv. Google Scholar

1. Pros: familiar interface, multidisciplinary, books & articles
 2. Cons: multidisciplinary, Keyword searching only, citation problems, WE DON'T KNOW WHAT IS IN IT!
- v. PubMed
1. Pros: MeSH Headings, familiar interface, lots of articles
 2. Cons: awkward interface, hard to export to reference

Database Coverage

Journal Title	MEDLINE	RECAL	Google	Scirus	Web-of-Science
Adv Clin Rehabil	•	•	•	•	
Am J Phys Med Rehabil	•	•	•	•	•
Arch Phys Med Rehabil	•	•	•	•	•
JACPOC		•			
Bull Prosthet Res	•	•	•	•	
Clin Rehabil	•	•	•	•	•
Disabil Rehabil	•	•	•	•	•
Expert Rev Med Devices	•		•	•	•
IEEE Trans Rehabil Eng	•	•	•	•	•
J Bone Joint Surg	•	•	•	•	•
J Prosthet Orthot		•	•		•
J Rehabil Res Dev	•	•	•	•	•
Orthot Prosth		•	•	•	•
Clin Podiatr Med Surg	•	•	•	•	
Prosthet Orthot Int	•	•	•	•	•

II. Search Tips

1. General Tips

- i. Search multiple databases (Google Scholar + ISI Web of Science + RECAL + PubMed...)
- ii. Use Boolean Operators and Wildcards (Sections II, 2 and 3)
- iii. Use multiple search strings. See section II. 4
- iv. Get outside our discipline. Try physical therapy, biomedical engineering, orthopedic surgery...
- v. Start out broad and then narrow search
- vi. Check spelling and consider alternative spellings!
- vii. Document your search
- viii. Use References and reverse citations

2. Boolean Search Operators

- i. AND: Use AND to find records containing all terms separated by the operator.
 - 1. Example: Beverage AND bottle finds records containing both terms.
- ii. SAME: Use SAME to find records where the terms separated by the operator appear in the same sentence.
 - 1. Example: Beverage SAME bottle finds records in which these two terms must appear in the same sentence.
- iii. OR: Use OR to find records containing any of the terms separated by the operator.
 - 1. Example: Beverage OR bottle finds records containing beverage or bottle (or both).
- iv. NOT: Use NOT to exclude records containing certain words from your search.
 - 1. Example: Beverage NOT bottle finds records containing beverage but excludes records containing bottle.

3. Wildcards

- i. Asterisk (*): Represents any group of characters including no character.
 - 1. For example: enzym* matches:
 - a. enzyme
 - b. enzymes
 - c. enzymatic
 - d. enzymic
- ii. Question Mark (?): Represents any single character.
 - 1. For example: wom?n matches:
 - a. woman
 - b. women
- iii. Dollar Sign (\$): Represents zero or one character.
 - 1. For example: grain\$ matches:
 - a. grain
 - b. grains
 - 2. For example: colo\$r matches:
 - a. color
 - b. colour


** Every database is a little different with what wildcards and Boolean operators it allows and the specific syntax. Look for the database-specific search tips. Google Scholar DOES NOT allow wildcards

4. Search Strings

- i. Keyword search is most intuitive, but the least selective
 - 1. Try multiple words and phrases

2. Don't forget alternate spellings, ie orthopedic and orthopaedic.
- ii. Narrow search by author, journal, and date
- iii. If you find a good article, find more like it by looking at it's references and the articles which have referenced it (reverse citation)
 1. Examples: Looking for articles on stroke rehab with AFO's
 - a. *ankle foot orthosis* will return all articles with those 3 words in any order
 - b. *"ankle foot orthosis"* will return all articles with that specific phrase
 - c. *"ankle foot orthos*"* will return articles with "ankle foot orthosis" or "ankle foot orthoses" or "ankle foot [any word that starts with orthos__]"
 - d. *"ankle foot orthosis" OR "ankle foot orthotic" OR "ankle foot orthoses"* will return articles one or more of those phrases
 - e. *Stroke AND ("ankle foot orthosis" OR "ankle foot orthotic" OR "ankle foot orthoses")* will narrow the search from the search in c to include only those articles which also have the word *stroke*. If using a database with multiple query boxes, try separating the two search criteria for increased clarity.

III. Getting Full Text

1. Using the  button
 - i. Clicking this opens up a new window by SFX (make sure your pop-up blocker is turned off). It has information about the library's holdings of this journal.
 1. Option 1 – We have it online! Simply click the link to get full text. If you don't see the full text right away, try looking for a PDF link
 2. If you see "*No electronic access available through MGet It*", try Option 2: check the library catalog. They may have it in print. Click the link *Mirlyn*. This should also open another window with information about where to find it. If they have it – print the reference and take it to the library. The librarian there can help you make a copy
 3. If they don't have it, or if you don't want to go to the library to get it, there is an Option 3 – *Request Delivery*. See below.

Help: <http://www.lib.umich.edu/help/sfx/>

2. Request Delivery
 - i. Click *Have it delivered*
 - ii. A new window will open. Click the appropriate link about your position (probably *Staff in Health Sciences*).
 - iii. Log in with your unique name and Level 1 password
 - iv. If the library does not own it (electronically or print), Click the link *Not Owned by the library*
 - v. This should fill out an Iliad request for you. Click *submit*.
 1. Iliad service is FREE.
 - vi. If the library owns the article/book (they have it in print at a UM Library): Click the link *Owned by the library*.
 - vii. It should fill out the 7-Fast request for you. Click *submit*.
 1. 7-Fast – used for resources that the library has in print.
 - a. Article: they will PDF it and email it to you within 2 days
 - b. Book: they will deliver it to you (on campus) within 2 days.
 - c. This service is free for faculty members/grad students and costs \$3.75 for regular employees.

<http://www.lib.umich.edu/7fast/>

IV. JOURNAL of PROSTHETICS and ORTHOTICS

1. <http://www.oandp.org/>
2. Type your search string into the left-hand search box
 - i. Will search for whatever you type in all fields. Type words in the title, article, author, or references.
3. Check *JPO*
4. Click *GO*
5. Older articles are freely available – clicking on title gets you full text
6. Must be an Academy member and sign in to access new articles

V. RECAL


Most comprehensive database in the field of prosthetics, orthotics and related physical medicine and rehabilitation. Holds 83000 bibliographic records, from the early 1900s to 2007.

1. <http://cdlr.strath.ac.uk/recal/>

2. Type your search string into either box, depending on what fields you wish to search. See *Help with Searching* at the bottom of the page for tips.
3. NOTE: This database does not link up to the UMich library. Use it to find field-specific articles, and then look them up in another database (ISI Web of Science, Pubmed...) to get the full text. Basically, this database is going to return the articles you are most likely looking for. You have less sifting through to do to get what you want, but you have to go through another step to get the full text.

VI. ISI Web of Knowledge

Over 8500 journals, all peer-reviewed; Access to references and reverse citations; Capabilities to save searches; easy direct export into reference software (including your own web Endnote)

1. <http://www.lib.umich.edu/hsl/>
2. Click *ISI Web of Knowledge* (on left toolbar)
3. Click *Web of Science* (tab at top)
4. Put in your search string (make sure you have the right field selected, ie – if searching generally, try selecting *Topic* from the drop down box.)
5. If needed, refine search by using box on left, or by trying a different search string
6. If you see a reference you like, click on it to see the abstract.
7. If you want to get the full text, click the  button (See section III. 1).
8. Click the numbered hyperlink next to *Times Cited* to see a list of the articles which have cited it
9. Click the number hyperlink next to *References* to see the bibliography of the selected article.

*If you find a good article, Steps 8&9 are excellent ways to find more articles specifically related to your search topic! Try it!


Help:

http://isiwebofknowledge.com/currentuser_wokhome/cu_trainingsupport/


VII. Google Scholar

Very intuitive and familiar. Very comprehensive. REMEMBER – not all articles will be peer reviewed! Check the journal they are from and decide if it is a trustworthy source.

1. <http://www.lib.umich.edu/hsl/> Go to the library site first!! Links it with the University of Michigan Library system!

2. Click *Google Scholar at UofM* (left hand toolbar)
3. Intuitive search, just like regular Google, is a good start. Will return at lot of articles. Does not allow wildcards!
4. Click on the *Advanced Search* link to apply limits to searches such as journal, date, etc. Also, here you can search in specific fields (ie: looking for articles by author)
 - i. Google-specific search operators can be found here:
<http://scholar.google.com/intl/en/scholar/refinerearch.html>
5. When you find an article you want, Click *Availability at UMichigan* (BELOW the title and description). This is your  button.
6. When you find a good article, use the other links below the title to find similar ones (*Cited By, Similar Articles*)

VIII. **PubMed**

1. <http://www.lib.umich.edu/hsl/>
2. Click *PubMed at UofM* (left hand toolbar)
3. Try keyword search at the top for most general search. Any word entered in the top search box is looked for in all available fields.
4. Narrow search by using *Advanced Search* (button to right of general search box). Use this search to search in specific fields or to narrow
5. Use the same  button on the top right to see UM holdings
6. Look at the *Related Articles* (on right) for more potential articles.