Echocardiography Research

Starting your research

A good place to start a research project, is with something that interests you. If you are not sure where to start, try looking at the table of contents in a text book, or flipping through an encyclopedia on your subject such as Gale Encyclopedia of Medicine.


Try also searches in encyclopedias and general resources such as Academic Search Premier (https://www.library.oit.edu:2443/login?url=http://search.ebscohost.com/login.aspx?authtype=ip,uid&profile=ehost&defaultdb=aph). Most libraries will have a number of medical encyclopedias on the shelf, or try a search in the Gale Virtual reference library.


Some sources for starting your research are


Finding sources

There is more than just knowing where to look to find resources for your project. Try some of these search tips to get better results:

- Boolean operators: using the words AND, OR, and NOT to connect your search terms will get you more or less results. The graphic shows a search for (red or blue) not

Want more? Contact the librarian at 503-821-1258, or chat online 24/7 with a librarian at http://www.oit.edu/libraries/help/ask

The start of Dewey decimal call numbers for medicine include 610, 611, and 612. The Library of congress call numbers for Echocardiography start with RC683.
yellow. This would return everything in the red, blue, and purple areas, but nothing in the yellow. If the search were instead (red and blue) not yellow, it would return only those resources in the purple area.

- Synonyms: The people who decide what subject and keywords describe each item in your search results may not think like you or I. It is helpful to think of some synonyms for your search terms if you are not finding useful results.

- Subject terms: Subject terms are the resource specific terms used to describe a source. For example, the Library of Congress subject that includes Echocardiography is Heart—Imaging. This is called a broader term and can be used to do a more general search on the same subject. Look for a thesaurus for the resource you are searching in. This will help you identify subject terms for your topic. Many electronic resources also offer suggested subjects based on the keywords you enter in your search.

- Citation searching: This type of search is useful if you already know a bit about what you are researching. You can look up to see who has cited a specific source, as well as looking at that sources reference to see where they got their information. Another form of citation searching is finding articles that cite the works of a specific author/creator. This is useful when you know the name of a subject expert.

Where to find resources

Knowing where to go for resources will save you time. While a general internet search will return many resources, the following will return subject specific resources. When you find something Oregon Tech does not own try borrowing it from another library. http://www.oit.edu/libraries/find/books/borrowing-from-another-library Make sure to use your Oregon Tech email address to that articles can be sent to you.

Electronic Resources

Find these electronic resources and more in this alphabetical list http://www.oit.edu/libraries/find/articles/a-z You can also search the library catalog for articles and books on a topic: http://www.oit.edu/library-catalog though this is a more general search. You will need to logon with your Oregon Tech logon and password when prompted.

- CINAHL with Full Text1 - a comprehensive resource for peer-reviewed nursing and allied health literature including searchable cited references.
- Cochrane Library – contains a collection of databases that contain evidence based research with clinical expertise and patient values for informed healthcare decision-making.
- Health Source Nursing Academic Edition –provides scholarly full-text journals focusing on nursing, allied health fields, and many medical disciplines.
- Health Reference Center Academic – integrates millions of articles from a wide-range of full-text nursing and allied health journals, newspapers, magazines, newsletters, reference works, and consumer health information.
• MEDLINE – an online database of biomedical journal citations and abstracts covering all areas of medicine and indexed with NLM’s controlled vocabulary, the Medical Subject Headings (MeSH®).

• PubMed – a free resource that anyone may access and maintained by the National Library of Medicine. Includes access to MEDLINE and to citations for selected articles in life science journals not included in MEDLINE.

• Sage Journals Online – Browse journals by Discipline – Health Sciences has full-text articles.

• Smart Imagebase – Download thousands of medical illustrations, videos, interactive tools, and monographs of anatomy, physiology, embryology, surgery, trauma, pathology, diseases, conditions and other topics.

**Journals** – The electronic resources above allow you to search for journal articles by topic. If you want to narrow it to some specific journal titles try:

• *JAMA (Journal of the American Medical Association)*  
  Available in paper at the Klamath Falls campus. Request articles through http://www.oit.edu/libraries/find/books/borrowing-from-another-library to get articles sent to you.

• *New England Journal of Medicine*  
  Available in paper at the Klamath Falls campus. Request articles through http://www.oit.edu/libraries/find/books/borrowing-from-another-library to get articles sent to you

• *Lancet*  

• *Journal of the American Society of Echocardiology*  

• *Heart & Lung*  

• *Applied Radiology*  

• *Echocardiography*  

• *Journal of the American College of Cardiology*  
  http://tinyurl.com/blbfhsc

**Journal rankings** – Also known as impact factor. Journal ranking is the evaluation of a journal's impact and quality compared to other journal in the field.

**Books** - Books and other items are listed in the Library Catalog  
http://oregontech.worldcat.org/advancedsearch. Use the Library Catalog to find materials in the Oregon Tech Libraries' collections and through the Summit. Summit provides access to materials from 36 academic libraries in Oregon and Washington for Oregon Tech students, faculty and staff.

See the subjects and suggested Library of Congress call number ranges below:

Last Updated – April 2013, DMLW
What is wrong with Wikipedia? It is important to check where the information in a Wikipedia article comes from. Anyone can write and update an article. Go to the bottom of the page, and check the references to verify the information before you use it.

Selected Websites

- Google Scholar scholar.google.com
- American Society of Echocardiography http://www.asecho.org/
- Fetal Echocardiography, University of Pennsylvania, School of Medicine http://www.med.upenn.edu/fetus/echo.htm
- National Board of Echocardiography http://www.echoboards.org/

Evaluating your sources

As you are searching for sources you should be evaluating them. You want to look at how relevant the information is to your topic, as well as the date of publication, the type of publication, and the author/creator.

Relevancy – This is the first check when evaluating your sources, and probably something you are doing already. Make sure the source has something to do with your topic. If you are doing a project on early detection of heart murmurs, you would not cite The Grapes of Wrath. The electronic resources, Library catalog, and search engines you use will start this process for you when you enter your subject or keywords. You can increase the relevancy of articles you are finding by using a few search techniques (see Finding resources for some tips).

Date – The date of creation or publication of the resource could be very important depending on your topic. If you are researching the history of a topic older resources may work perfectly fine. However, if you want the newest technique, you will also want the latest resources available.

Type – There are many types of resources you can use. These get into more detail than book or periodical, and each one may be a little different than the last. These are some general types of resources.

- Books – Tend to be more detailed and take longer to write and publish than journal articles.
• E-books – While access may be easier with an e-book, publishers are treating them the same as print books when it comes to publication time.
• Images – a photograph or drawing can say a lot.
• Lecture – Whether attending a class or listening to a special speaker, a lecture is information given by an expert in the field.
• Popular Magazine – This is something you would pick up for general interest or entertainment reading.
• Reference books – there are different types of reference books such as the encyclopedia or the almanac. In general, reference works will have an overview of information on a topic.
• Scholarly Journal – This is where you would find current research in a field. A subset of the scholarly journal is a peer reviewed journal. Peer review means that the articles have been blind reviewed by other experts in the field before publication.
• Trade publications – These are generally published by an organization such as the American Society of Echocardiography.
• Website – A website is a group of pages published electronically on the internet. While many organizations and publishers have websites, it is important to note the ease of which an individual can create their own website with content on any subject.

Author/Creator/Publisher – See who wrote and who published the resource. Authors and creators tend to leave their opinions in their research whether they intent to or not. As for publishers, some specialty publishers and organizations look for materials that align with their beliefs. An example would be the Christian Science Monitor, or the National Rifle Association.

Citing sources and Information Ethics

Plagiarism is the unacknowledged use of someone else’s work. This includes your fellow students to famous researchers and everyone in between. It also includes information published in any medium whether it is an image, a journal article, a lecture, or a web page. Citing your sources in-text and in a reference page or bibliography will keep you from plagiarizing.

Citing In text

Paraphrase or summarize a thought by rewriting it in your own words. You will still need to cite it, but not as a quote.

Example: In a test of 21 “normal” volunteers, the University of Kentucky study found that neither, Echocardiography or

Want to cite an image? Try this page for more information: http://www.oit.edu/libraries/find/web/images
magnetic resonance imaging expose the patient to ionizing radiation. 1 (p.1374)

You can also quote a resource. Depending on the length of the quote and the citation style you are using you may need to separate quoted text from the rest of your document.

Example: “Cardiac chambers and vascular structures were clearly defined with both echocardiography and gated magnetic resonance imaging during systole and diastole in all volunteers” 1(p.1372)

It is common to use a combination of these techniques in your projects.

Reference list or Bibliography

You may be required to write a reference list in a specific style. Try the resources on the citing sources page to help you - http://www.oit.edu/libraries/help/citing-sources. Many electronic resources can help you with proper citations when you are finding your resources. Look for this option when you are searching. The above two in text citation examples are AMA style. The following is an AMA style citation of the journal article they are from:


1 If you are having issues finding current research in Cinhal, or Medline, try not narrowing your search to only what is available to full text. When you find something you want click on “find it” to get the full article.