PubMed Tips

- **Don't settle for a bad Search**

  Typing in the term "blindness" will return over 15,000 hits – you're *never* going to have time to go through that many citations. On the other hand, if you're looking for information about glaucoma drugs, and you're only getting 20 hits, you've done something wrong.

  Either way, don't just settle for what you get. Insetad, step back and see what you can do to fix your search.

- **Use MeSH**

  Keywords can be useful, but relying upon them alone in your search is a sure way to both miss relevant citations as well as pick up a bunch of stuff you don't need. It's good practice to start your search with MeSH headings, especially when dealing with broad topics.

- **Know your Limits**

  Most of the time, your main challenge will be whittling down a big results set. Looking for an overview? Limit to "Review." Don't care about lab rats? Limit to "Human." Looking for solid evidence about the effectiveness of a treatment? Limit to "Clinical Trial."

- **Be Flexible**

  You can try what *should* be a great strategy, only to get very little in return. Think about alternative MeSH headings. Is this a topic that's only accessible through keywords? Do you have to combine different concepts with AND or OR to get what you want? Remember that you can use your History to avoid having to constantly retype the same thing.

Note: Be sure to print out your PubMed History to hand in as part of completing your Learning Issues assignments

Critical Thinking Skills

"Truth is sought for itself, but the truths are immersed in uncertainties, and scientific authorities are not immune from error, nor is human nature itself. Therefore the seeker after truth is not one who studies the writings of the ancients and, following his natural disposition, puts his trust in them, but rather the one who suspects his faith in them and questions what he gathers from them, the one who submits to argument and demonstration, and not to the sayings of a human being whose nature is fraught with all kinds of imperfection and deficiency. Thus the job of the man who investigates the writings of scientists, if learning the truth is his goal, is to make himself an enemy of all that he reads, and applying his mind to the core and margins of its content, attack it from every side. He should also suspect himself as he performs his critical examination of it, so that he may avoid falling into either prejudice or leniency.

al-Hazan ibn al-Haytham (also known as Alhazen) in *Aporia against Ptolemy*
13th century

Of course, just because something is in print or online (or even in PubMed), doesn't make it automatically true. Part of reading critically is engaging with the material – does it match up with what you know? If not, why not?

Critical reading will be especially important for "The Relative Value of Information Sources" assignment. While you're looking at sources for that, as well as completing your learning issues, keep these questions in mind:

Who is writing it?
Is the source of the information identified? This can be tricky on the web, where a lot of pages are unsigned. It also holds for unidentified "reliable sources" that are so often referred to in the news.

Do they have an axe to grind?
A lot of the material you'll find in print or on the web is designed to support a political opinion or move a product. Does an item seem reasonably balanced, or is the author trying to sell you something?

How old is it?
Does the item have any indication of when it was written or last updated?

Does it make sense?
Hey, maybe "Magnetically Ionized Tibetan Herbal Tictures" really *do* cure cancer – but you should look for independent verification before you believe it.