Basic Searching

Library website: http://lib.uconn.edu

Step 1: Pick a good topic

A good topic is a topic you have the capacity to understand that is of interest in the scientific community today.

Need ideas? Browse these sources:


Step 2: Explore the background on your topic

It’s easy to skip this step, but don’t—it will help you!

Micromedex [see background tab] is primarily a drug database, but it provide great summaries of diseases/conditions.

Search Micromedex for you topic and then click on the entry for Diseasedex.

Health statistics [see statistics tab], which are usually available via the National Center for Health Statistics (NCHS) will provide additional information about epidemiology.

You may also benefit from looking at a consumer-oriented description of your condition. Try MedlinePlus.

Step 3: Search for articles on your topic

Part A: Pick a database

There are different databases for medicine, psychology, and sociology. All of these fields relate to health. Take childhood obesity for example, this is clearly a topic of medical concern, but it also has psychology and sociological facets to it.

PubMed is the primary medical database. It will have information on any medical topic; however, you may want to supplement PubMed with PsycInfo or Sociological Abstracts.
WARNING: do not access PubMed via google or by going directly to pubmed.gov—the database will work but you will not get the full-text (PDFs) of any articles. Use the link from the library’s website to access PubMed.

Part B: Search for articles

Databases ONLY find the word you type EXACTLY AS YOU TYPE IT. If you type swim, they will not find swimming or breaststroke. If you type diabetes, they will not find diabetic. A search for sports will not find any articles about specific sports unless you add terms for those sports. This means that in any search, you must think of all iterations for your terms.

Combine terms using the commands: AND, OR, NOT. Use quotations for phrases. Use parentheses to group synonyms.

Example 1.

If I want to find articles on shoulder injuries in swimming, my search might start like this:

Shoulder injuries AND swimming

But I need to put phrases in quotes and use parentheses to add synonyms

(“Shoulder injuries”) AND (swimming)

(“Shoulder injuries” OR “shoulder impingement” OR “rotator cuff impingement”) AND (swimming OR swim OR swimmer OR swimmers OR breaststroke OR backstroke OR butterfly OR freestyle)

Now I want to get rid of articles on synchronized swimmers

(“Shoulder injuries” OR “shoulder impingement” OR “rotator cuff impingement”) AND (swimming OR swim OR swimmer OR swimmers OR breaststroke OR backstroke OR butterfly OR freestyle) NOT synchronized

I’m not finding enough, maybe it’s because I used a phrase for separate topics

“Shoulder injuries” misses most articles on shoulder injuries. For example, “shoulder injuries” will not find:

- Injuries of the shoulder
- Ligament strain of the shoulder
- Injured shoulders

(Shoulder OR shoulders) AND (impingement OR injury OR injuries) AND (swimming OR swim OR swimmer OR swimmers OR breaststroke OR backstroke OR butterfly OR freestyle) NOT synchronized
Example 2:

If I want to find information on health education for parents of children with chromosome abnormalities, my search might start like this:

“health education” AND children AND “chromosome abnormalities”

Why did I leave out the parents? Some topics are implied. It is that counseling would be geared towards the parents; therefore I do not need to add this concept into my search.

This search found nothing in PubMed. It’s a good thing I looked up the background on my topic, because I know that the most common chromosome abnormality is Downs Syndrome. Also, people often use the word counseling instead of health education

(counseling OR “health education”) AND children AND (“chromosome abnormalities” OR “downs syndrome” OR “down’s syndrome”)

Now I have 151 articles, maybe I’ll limit my topic to Down’s only. I see that some people spell counseling with two L’s.

(counseling OR counselling OR “health education”) AND children AND (“chromosome abnormalities” OR “downs syndrome” OR “down’s syndrome”)

I can improve my search by looking for the MAIN concept(s) in the article title. Use field labels to specify that a word or phrase appear in the title.

- Counseling [title]
- “health education” [title]

(counseling [title] OR counselling [title] OR “health education” [title]) AND children AND (“chromosome abnormalities” OR “downs syndrome” OR “down’s syndrome”)

Note that the label is on the outside of the quotes. Other useful field labels are:

Hand [author] … hand will be found as the author’s name

Exercise [tiab] … exercise will be in the article title or abstract

Exercise [abstract] … exercise will be in the article abstract

“physical therapy” [ta] … Physical Therapy will be the journal name

My search is good, but a lot of articles are in foreign languages. Use the filters to limit your search by language, date, or even to a specific age group (which is actually a better method than to search for the word children)
Step 4: Choose primary research articles

Primary research articles report the results of scientific studies/experiments. Review articles summarize other research studies, but themselves are not publishing the results of an individual study. Review articles are great for background information.

It is easy to determine if an article is primary by looking at its abstract. Note that the abstracts below detail the research methods, participants, and results.

Article 1


Abstract
BACKGROUND:
Falls may occur as unpredictable events or in patterns indicative of potentially modifiable risks and predictive of adverse outcomes. Knowing the patterns, risks, and outcomes of falls trajectories may help clinicians plan appropriate preventive measures. We hypothesized that clinically distinct trajectories of falls progression, baseline predictors and their coincident clinical outcomes could be identified.

METHODS:
We studied 765 community-dwelling participants in the MOBILIZE Boston Study, who were aged 70 and older and followed prospectively for falls over 5 years. Baseline demographic and clinical data were collected by questionnaire and a comprehensive clinic examination. Falls, injuries, and hospitalizations were recorded prospectively on daily calendars. Group-Based Trajectory Modeling (GBTM) was used to identify trajectories.

RESULTS:
We identified 4 distinct trajectories: No Falls (30.1%), Cluster Falls (46.1%), Increasing Falls (5.8%) and Chronic Recurring Falls (18.0%). Predictors of Cluster Falls were faster gait speed (OR 1.69 (95CI, 1.50-2.56)) and fall in the past year (OR 3.52 (95CI, 2.16-6.34)). Predictors of Increasing Falls were Diabetes Mellitus (OR 4.3 (95CI, 1.4-13.3)) and Cognitive Impairment (OR 2.82 (95CI, 1.34-5.82)). Predictors of Chronic Recurring Falls were multi-morbidity (OR 2.24 (95CI, 1.60-3.16)) and fall in the past year (OR 3.82 (95CI, 2.34-6.23)). Symptoms of depression were predictive of all falls trajectories. In the Chronic Recurring Falls trajectory group the incidence rate of Hospital visits was 121 (95% CI 63-169) per 1,000 person-years; Injurious falls 172 (95% CI 111-237) per 1,000 person-years and Fractures 41 (95% CI 9-78) per 1,000 person-years.

CONCLUSIONS:
Falls may occur in clusters over discrete intervals in time, or as chronically increasing or recurring events that have a relatively greater risk of adverse outcomes. Patients with multiple falls, multimorbidity, and depressive symptoms should be targeted for preventive measures.

Article 2


Determining pancreatic beta-cell compensation for changing insulin sensitivity using an oral glucose tolerance test.
Solomon TP, Malin SK, Karstoft K, Knudsen SH, Haus JM, Laye MJ, Pedersen M, Pedersen BK, Kirwan JP.

Abstract
Plasma glucose, insulin, and C-peptide responses during an OGTT are informative for both research and clinical practice in type 2 diabetes. The aim of this study was to use such information to determine insulin sensitivity and insulin secretion so as to calculate an oral glucose disposition index (DI_{OGTT}) which is a measure of pancreatic beta-cell insulin secretory compensation for changing insulin sensitivity. We conducted an observational study of N=187
subjects representing the entire glucose tolerance continuum from normal glucose tolerance to type 2 diabetes. OGTT-derived insulin sensitivity (Si\textsubscript{OGTT}) was calculated using a novel multiple-regression model derived from insulin sensitivity measured by hyperinsulinaemic euglycaemic clamp as the independent variable. We also validated the novel Si\textsubscript{OGTT} in N=40 subjects from an independent data set. Plasma C-peptide responses during OGTT were used to determine oral glucose-stimulated insulin secretion (GSIS\textsubscript{OGTT}), and DI\textsubscript{OGTT} was calculated as the product of Si\textsubscript{OGTT} and GSIS\textsubscript{OGTT}. Our novel Si\textsubscript{OGTT} showed high agreement with clamp-derived insulin sensitivity (typical error=+3.6%; r=0.69, P<0.0001) and showed that insulin sensitivity was lowest in subjects with impaired glucose tolerance and type 2 diabetes. GSIS\textsubscript{OGTT} demonstrated a significant inverse relationship with Si\textsubscript{OGTT}. GSIS\textsubscript{OGTT} was lowest in normal glucose tolerant subjects and greatest in those with impaired glucose tolerance. DI\textsubscript{OGTT} was sequentially lower with advancing glucose intolerance. We hereby derive and validate a novel OGTT-derived measure of insulin sensitivity across the entire glucose tolerance continuum, and demonstrate that beta-cell compensation for changing insulin sensitivity can be readily calculated from clinical variables collected during OGTT.

Step 5: Get the full-text PDFs of articles you like.

Click on the title of the article in PubMed to get the abstract. Then look for the [UConn Links] button.

UConn Full Text may provide you with a link to the article.
Step 6: What if you need to search in another database?

Other databases work similarly to PubMed, but will give you three search boxes. Copy and paste the parenthetical groups into the search boxes—one set of parentheses in each box.

But NOTE! Field labels (eg. [title]) only work in PubMed. Use the pull down menu to the right of the search box to choose a field.

(counseling OR counselling OR “health education”) AND children AND (“chromosome abnormalities” OR “downs syndrome” OR “down’s syndrome”)
Note: some databases, such as PsycInfo have age limiters. As with PubMed, if you choose an age limiter, you will NOT search for the word children (or whatever age you desire) as a keyword.

Age Groups

<table>
<thead>
<tr>
<th>All</th>
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<tbody>
<tr>
<td>Childhood (birth-12 yrs)</td>
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<tr>
<td>Neonatal (birth-1 mo)</td>
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<tr>
<td>Infancy (2-23 mo)</td>
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