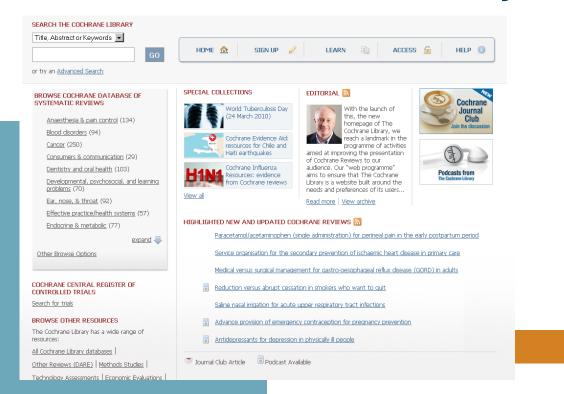
Cochrane Database of Systematic Reviews



By Razieh Zahedi

What is The Cochrane Library?



The Cochrane Library offers high-quality evidence for health care decision making

ranelibrary.com

What is the Cochrane Library?

- Evidence based: combining the best research evidence with clinical expertise and patient values
- Single source: bringing together international research on the effectiveness of healthcare treatments and interventions
- Extensive: over 6,000 Cochrane systematic reviews and over 650,000 other records, covering clinical trials, methods, technology and economic evaluations
- Quality: Impact Factor of 5.653
- Reliable: adhere to a strict methodology to ensure Cochrane reviews are comprehensive, thus minimizing bias
- **Up-to-Date:** Cochrane Reviews are updated monthly ensuring that treatment decisions can be based on the most up-to-date, reliable evidence

Easy to use: flexible viewing and searching functionality (including MESH)

The Cochrane Collaboration

- Structure established as an international organisation in 1993, registered as a charity in the U.K.
- **Aim** to help people make well-informed decisions about health care.
- How by preparing and maintaining, and promoting access to, systematic reviews of the effects of healthcare interventions.



The Cochrane Database of Systematic Reviews

- ✓ Over 6,000 full text Cochrane reviews and protocols (html & PDF format)
- ✓ Cochrane reviews adhere to a strict process, minimizing bias and ensuring reliability.
- ✓ The process begins with a protocol a plan or set of steps to be followed in a study.

BROWSE COCHRANE DATABASE OF SYSTEMATIC REVIEWS

Anaesthesia & pain control (134)

Blood disorders (94)

Cancer (250)

Consumers & communication (29)

Dentistry and oral health (103)

<u>Developmental</u>, <u>psychosocial</u>, <u>and learning</u> problems (70)

Ear, nose, & throat (92)

Effective practice/health systems (57)

Endocrine & metabolic (77)

Eyes & vision (78)

Gastroenterology (256)

Genetic disorders (82)

Gynaecology (273)

Heart & circulation (328)

Kidney disease (117)

Lungs & airways (426)

Mental health (318)

Methodological & diagnostic (17)

Neonatal care (263)

Neurology (468)

Orthopaedics & trauma (283)

Pregnancy & childbirth (359)

Public health (2)

Rheumatology (169)

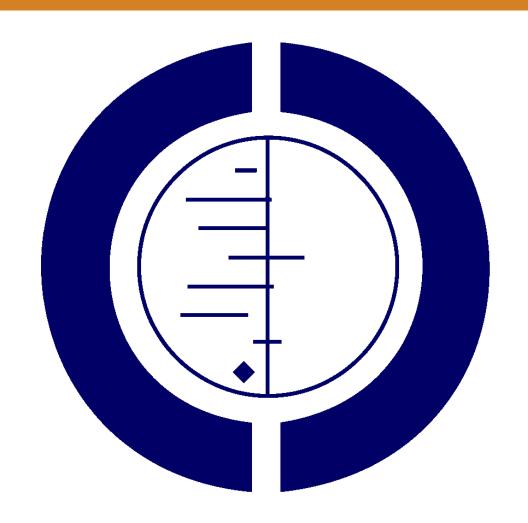
<u>Skin</u> (85)

Tobacco, drugs, & alcohol dependence (102)

Urology (87)

<u>Wounds</u> (65)

Cochrane Logo





Cochrane Collaboration's Vision

That healthcare decision-making around the world will be informed by high-quality, timely research evidence, and that The Cochrane Collaboration will play a pivotal role in the production and dissemination of this evidence across all areas of health care, including complementary medicine.





What is a Systematic Review?

- Identify an intervention for a specific disease or other problem in health care
- Ask whether or not this intervention works
- Locate, appraise and synthesize evidence from relevant scientific studies
- Summarize conclusions about effectiveness





What is the Cochrane Library?

A collection of databases

- Main output of the Cochrane Collaboration
- Highest level of evidence on which to base clinical treatment decisions



What is in the Cochrane Library?

Cochrane Database of Systematic Reviews (Cochrane Reviews)

Regularly updated summaries of the best available evidence prepared by members of the Cochrane Collaboration.

- The first and foremost is the Cochrane Database of systematic reviews. A Cochrane systematic review Identifies an intervention for a specific disease or other problem in healthcare and determines whether or not this intervention works.
- If there is no review on a specific topic, the other databases in The Cochrane Library will provide information on other good quality reviews and randomized controlled trials.

Database of Abstracts of Reviews of Effects (DARE)

Other published reviews prepared by people outside of the Cochrane Collaboration.



More Cochrane Library Databases

Cochrane Central Register of Controlled Trials (CENTRAL)

Where to look if you want to track down the original studies (primary studies) – the largest single source of controlled trials.

Cochrane Methodology Register (CMR)

As exciting as it sounds! Where to find studies which look at the science of systematic reviewing.

Health Technology Assessment Database (HTA)

An international collection of health technology assessments.

NHS Economic Evaluation Database (NHS EED)

International economic evaluations of health care interventions.

About the Cochrane Collaboration (About)

Where to look for information about Cochrane review groups and other activities of the Cochrane Collaboration.



The Cochrane Library

Cochrane Reviews (CDSR)
4400 complete reviews and 2500 protocols



Top 10 Accessed Worldwide, 2007

- See which reviews are getting the most attention from Cochrane Library users...
 - 1. Interventions for preventing falls in elderly people
 - 2. Interventions for preventing obesity in children
 - 3. Beta-blockers for hypertension





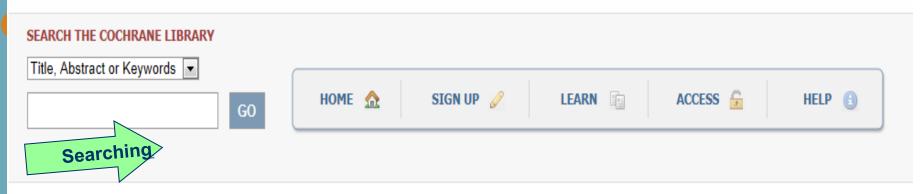
Ways to search the Cochrane Library

- From The Cochrane Library homepage you can either choose to **browse** the content or use one of several **search** options:
 - Basic
 - Advanced
 - MeSH











EDITORIAL 🔝

We need access to all data from all clinical trials



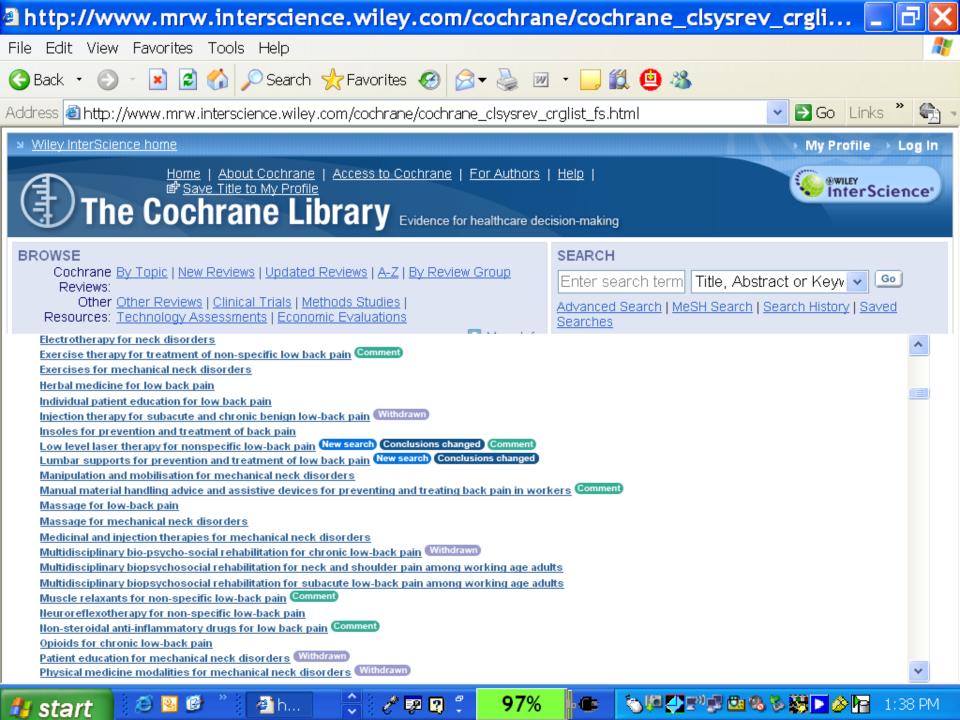
A variety of international organisations, funders, and others have made calls for sharing research data.

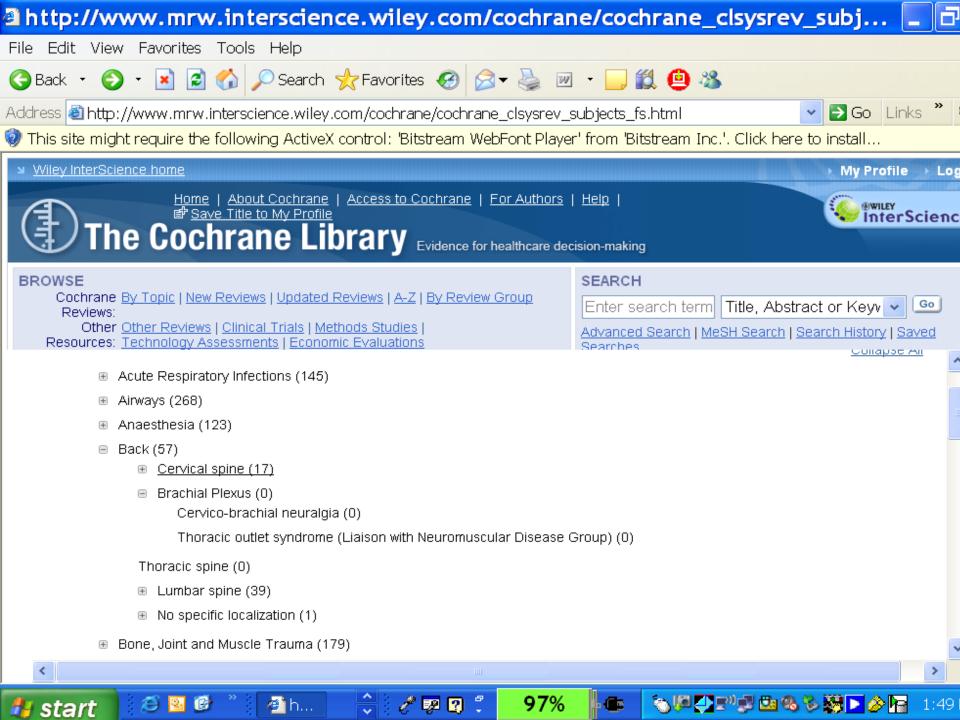
These calls have mostly been restricted to publicly funded research, but if the over-riding objective of healthcare research is to improve patient care and health policy, the distinction between publicly funded







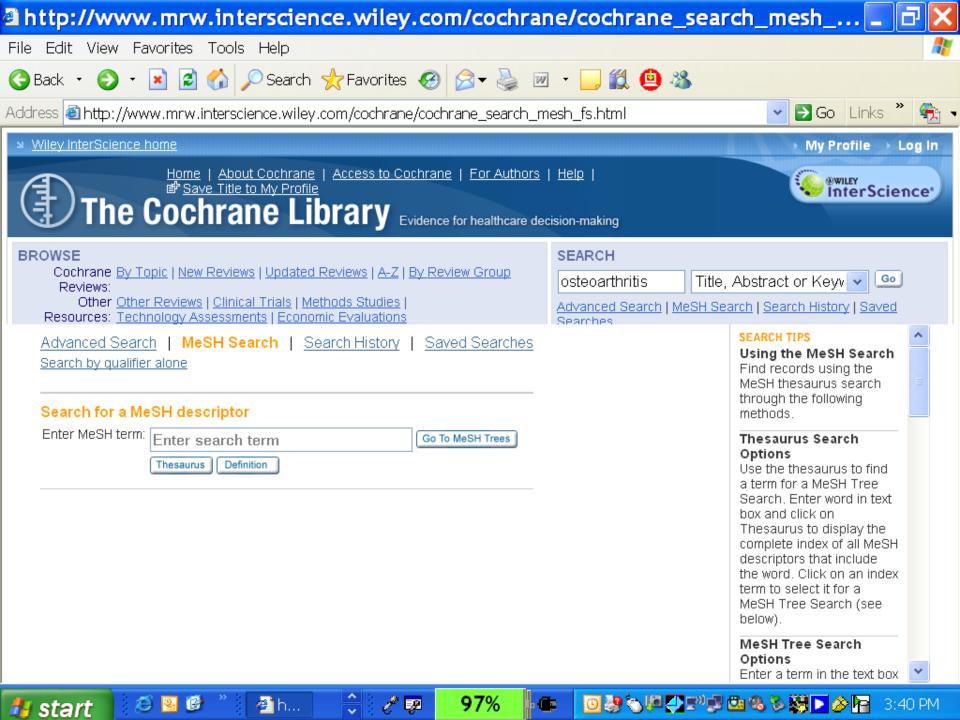




Searching the Cochrane Library

- Search using "basic"
- Searching using "advanced"
- Search using MeSH (Medical Subject Headings)
- Devise a complex search strategy

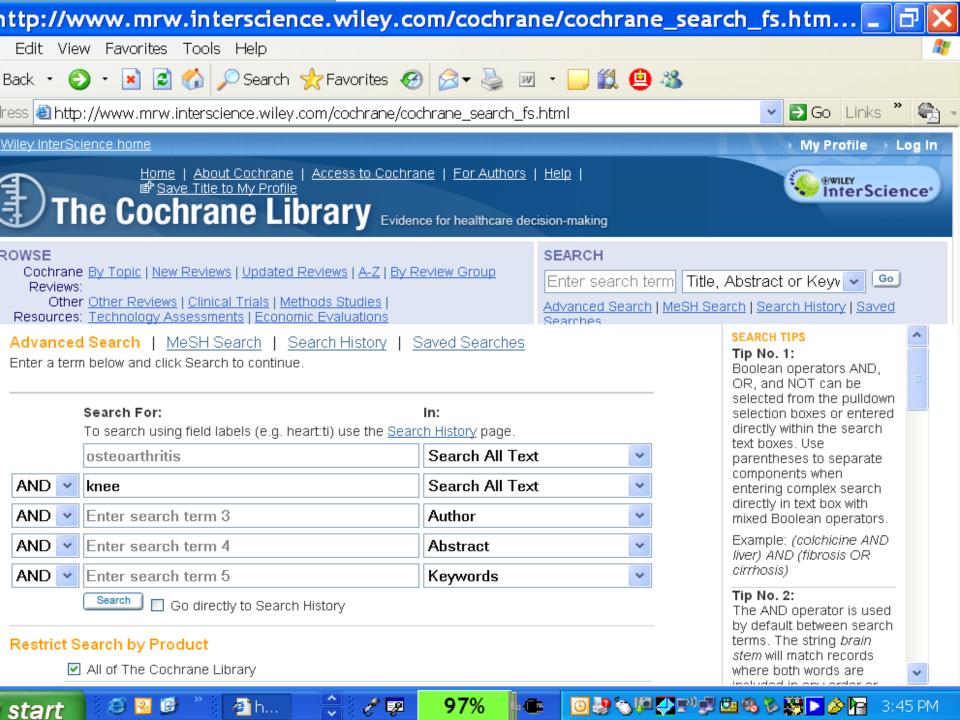


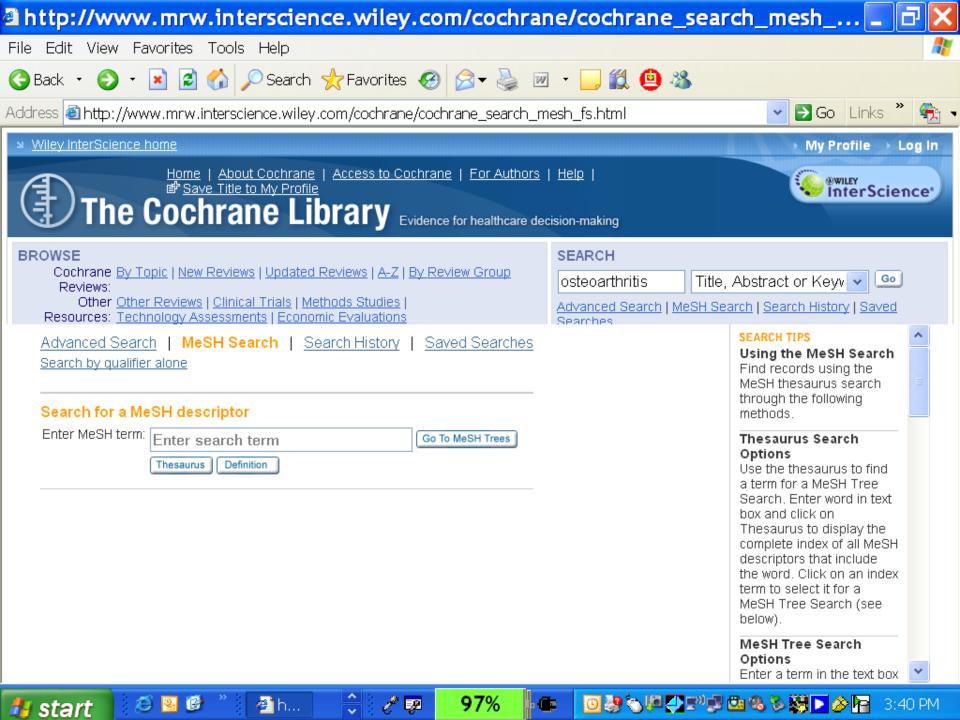


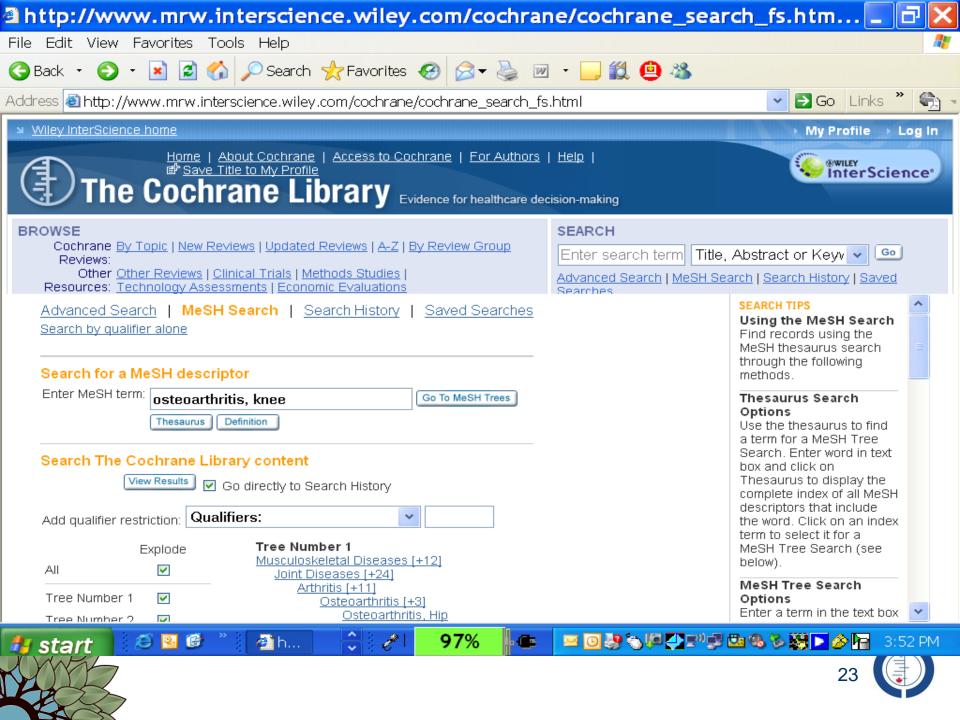
Advanced Search

For greater flexibility choose the Cochrane Advanced Search

The Advanced Search screen allows you to build searches by combining several different concepts using Boolean operators (AND, OR or NOT) and lets you limit your search according to particular databases, types of record or year(s).

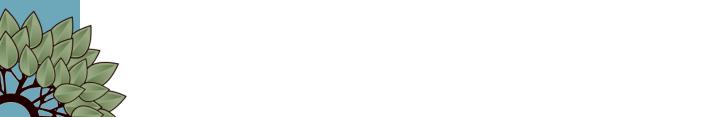






Organizing the search....

- PICO A well-formulated question makes it easier to produce the strategy and find the evidence
- Strategy will be based on controlled vocabulary (Medical Subject Headings), and text words (develop list of key terms, synonyms)





Start with PICO

Patient/Population

ntervention

Comparison

Outcome



Framing the question

Are aquatic-exercise interventions in the treatment of knee and hip osteoarthritis effective and safe?

- In patients with knee or hip osteoarthritis (population)
- Are aquatic-exercise interventions (intervention)
- No comparator (comparison)
- Effective and safe? (outcome)?



PICO

Patient group

- Knee osteoarthritis
- Hip osteoarthritis

Intervention

 Aquatic exercise interventions



PICO

Patient group

- osteoarthritis, knee (MeSH)
- osteoarthritis, hip (MeSH)
- (osteoarthritis OR osteoarthros*)
 AND (knee OR hip)

Intervention

- hydrotherapy (MeSH)
- balneology (MeSH)
- swimming (MeSH)
- balneotherap*
- aquatic NEXT exercis*
- (aquatic OR water) NEXT sport*
- pool NEXT therap*
- water NEXT aerobic*
- water NEXT exercis*
- water NEXT run*
- water NEXT training
- water NEXT gymnastic*
- (water* OR aquatic OR pool) AND physiotherapy



Reading the Reviews

- Results screen defaults to the Cochrane Database of Systematic Reviews (CDSR)
- Reviews and Protocols (restrict to reviews)
- Layers of detail

The **Abstract** summarizes the objectives, methods, results and conclusions.

The **Synopsis** is a 100-word plain language summary found directly beneath the abstract, with pointers to sections of the full review.

(http://www.nicsl.com.au/cochrane/guide_tell.asp)

Full review provides background, detailed methods, details of the individual trials, reviewers' conclusion and maybe comments posted by readers, and the authors' responses.

Lead-in Tools

- MeSH thesaurus (<u>www.pubmed.org</u>)
- Mayo Clinic
- Wikipedia





Accessibility

Podcast summaries of certain topic

http://cochrane.org/podcasts/index.htm



