Locating Evidence

A sample database search for the clinical question:

What is the effectiveness of CPM therapy following knee replacement in achieving optimal range of motion?

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Write out your clinical question:

What is the effectiveness of CPM therapy following knee replacement in achieving optimal range of motion?

For questions of therapy/intervention, use the PICO formula to identify the following elements in your question:

- **Patient/Problem:**
- **Intervention:**
- **Comparison:**
- **Outcome:**
What is the effectiveness of CPM therapy following knee replacement in achieving optimal range of motion?

- **Patient/Problem:**
  - knee replacement

- **Intervention:**
  - cpm therapy

- **Comparison:**
  - other therapy; no therapy?

- **Outcome:**
  - Optimal range of motion
What is the effectiveness of CPM therapy following knee replacement in achieving optimal range of motion?

- **Patient/Problem:**
  - knee replacement

- **Intervention:**
  - cpm therapy

- **Comparison:**
  - other therapy; no therapy?

- **Outcome:**
  - Optimal range of motion

**TIP:** Consider **Patient/Problem** and **Intervention** first when planning your search strategy and selecting database search terms.

[look for the **Comparison** and **Outcome** when you browse abstracts and review full text of articles]
Select a specialized database

From the libraries home page, http://www.library.nyu.edu/
From the Databases A-Z list, select: PubMed
Or, use the direct PubMed @ NYU link:
http://arch.library.nyu.edu/databases/proxy/NYU00068

Medline via PubMed
Widely recognized as the premier source for bibliographic and abstract coverage of biomedical literature.
Encompasses information from Index Medicus, Index to Dental Literature, and International Nursing Index as well as other sources in the areas of allied health, physical therapy, health education, biological and physical sciences, humanities and information science as they relate to medicine and health care, communication disorders, population biology, and reproductive biology. More than 16 million records from more than 5200 journals are indexed. PubMed is the freely available version of MEDLINE.
Search Steps Schematically

In PubMed, a search on the term “total knee replacement” maps to the standard MeSH term: **arthroplasty, replacement, knee**

“cpm therapy” maps to the term **motion therapy, continuous passive**

**NATURAL LANGUAGE**

Total knee replacement  
**AND**

**MeSH terms:**

**arthroplasty, replacement, knee**

**AND**

**motion therapy, continuous passive/**
Search Steps Schematically...

**arthroplasty, replacement, knee** **motion therapy, continuous passive**

**AND** narrows the search

In PubMed: click on the **Details**, to view mapping
Search Steps Schematically...

OR expands a search

Use OR to string synonyms together, e.g.:

movement therapy OR cpm therapy OR motion therapy, continuous passive
Search Steps Schematically...

- arthroplasty, replacement, knee
- movement therapy
  OR
  cpm therapy
  OR
  motion therapy, continuous passive

Expanding with OR, and
narrowing with AND
Once you have conducted your initial search, select **FILTERS** to begin to reduce search results. Select one or more **Article Types**, **Publication dates**, **Age groups** if appropriate, etc.
Publication type: randomized controlled trial

Movement therapy OR cpm therapy OR motion therapy, continuous passive

Arthroplasty, replacement, knee

AND narrows the search
Filters have been activated and have reduced search results.
Effectiveness of prolonged use of continuous passive motion (CPM), as an adjunct to standard post-surgical care, in the rehabilitation of total knee arthroplasty patients: a randomized controlled trial

Lensen TA, van Steun M, Crijns YH, Waltje FM, Roox GM, Geesink RJ, van den Brand M.

Objective: The purpose of this study was to evaluate the efficacy of prolonged CPM use in the home situation as an adjunct to standard post-surgical care, in the rehabilitation of total knee arthroplasty patients.

Method: A randomized controlled trial was conducted. Patients were randomized to either the CPM group or the control group. The CPM group received CPM treatment for 10 days after surgery, while the control group received standard post-surgical care. The primary outcome measure was the range of motion (RoM) of the knee.

Results: Patients in the CPM group had a significantly greater RoM compared to the control group. The difference in RoM was statistically significant and remained consistent throughout the follow-up period.

Conclusion: Prolonged use of CPM as an adjunct to standard post-surgical care is effective in improving the range of motion of the knee after total knee arthroplasty.
Options may link to article full text or...
For articles not available full text or hard copy in the libraries Bobcat catalog, click to order via Interlibrary Loan.
Locating the full text of articles...

• Look for a link from citation to “full text” or

• Search Bobcat to locate Bobst holdings
  http://www.bobcat.nyu.edu/
  – journals may be held in print on the 3rd floor Current Periodical Shelves, bound in the stacks by call number, electronically, or on microform on A-level

  – journals may be linked electronically in Bobcat

• Interlibrary loan:
  http://library.nyu.edu/services/ill.html
Evidence is hierarchical. Explore the resources linked to the pyramid at: http://tinyurl.com/nyupyramid
Limits: raising the level of evidence

• In CINAHLPlus, click on Find More link to limit to Publication type: “research” OR “systematic review” or try the Clinical Queries

• In Medline/PubMed, use the filters to apply categorical limits, such as age groups, publication types, dates…

• Use Medline/PubMed “Clinical queries” or Medline/Ovid Additional Limits button to select from “clinical queries” Clinical queries include the ability to search for systematic reviews or limit to a clinical study category. More info at: http://www.nlm.nih.gov/bsd/pubmed_subsets/sysreviews_strategy.html

• In PsycINFO, click on Limit a Search, limit by Methodology; try using Clinical Queries.

• View screenshots of limiting strategies in selected databases: http://nyu.libguides.com/content.php?pid=34319&sid=1009487
Expanding a search:
• use the **OR** operator
  – arthroplasty, replacement, knee **OR** KA **OR**… TKA **OR**…
  – movement therapy **OR** cpm therapy **OR** motion therapy, continuous passive

Narrowing a Search:
• Attach subheadings
  – arthroplasty, replacement, knee/rh [rehabilitation]
  – occupational therapy/td [Trends]
  – phantom pain/dt [Drug Therapy]

• Apply Limits
  – publication type (e.g., clinical trial, review)
  – year(s) of publication (yr=1998), language, age group
  – each database offers different limits
Getting more help:

- **Citing your sources in APA, AMA, ETC.**
  
  [http://nyu.libguides.com/citations](http://nyu.libguides.com/citations)  **CLICK ON AMA tab**

- **LibGuides**
  
  [http://nyu.libguides.com/health](http://nyu.libguides.com/health)
  

- **Evidence Pyramid**
  
  [http://tinyurl.com/nyupyramid](http://tinyurl.com/nyupyramid)
Cochrane systematic reviews are also indexed in PubMed.
PMID: 20238330 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms

Publication Types
Meta-Analysis
Review

MeSH Terms
Arthroplasty, Replacement, Knee/rehabilitation*
Humans
Motion Therapy, Continuous Passive*
Osteoarthritis, Knee/surgery*
Randomized Controlled Trials as Topic
Range of Motion, Articular

Evidence is hierarchical. Explore the resources linked to the pyramid at: http://tinyurl.com/nyupyramid