Introduction to PubMed

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What do you HAVE TO know to use PubMed?

#1 MeSH terms (Medical Subject Heading)  
#2 Boolean Operators (AND, OR, NOT)  
#3 Filters or Limits (Article Types/Levels of Evidence)  
#4 Clinical Queries Search feature

http://pubmed.gov

MeSH  
Medical Subject Heading  
Indexing language used by the NLM librarians who assign key words to articles

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http://pubmed.gov

Sealants

Pit and Fissure Sealants OR Fissure Sealants, Pit OR Sealants, Pit Fissure OR Sealants, Dental OR Dental Sealants OR Sealants, Tooth OR Tooth Sealants OR Fissure Sealants OR Sealants, Fissure

Pit and Fissure sealants [MeSH]
Boolean Operators

- Combining search terms with Boolean operators (AND, OR, NOT). Recently changed so that they now can be typed in lower case (and, or, not) to combine or exclude search terms:
  - **AND** retrieves results that include all the search terms. (Tooth Pastes AND Tooth Bleaching)
  - **OR** retrieves results that include at least one of the search terms. (tooth pastes OR tooth bleaching)
  - **NOT** excludes the retrieval of terms from your search.

Search Results

Filters

- Helps to make your search more efficient by finding relevant high level evidence by filtering/limiting the results of the search by:
  - Type of article/study design
  - Dates
  - Humans or animal studies
  - Language
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Relationship of Research Designs/Levels of Evidence and PubMed Searching Filters (Article types)

- Clinical Queries
  - It uses evidence-based algorithms when doing searches/pre-determined search filters
  - Helps you find the highest level of evidence for a clinical question

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In Summary

Yes! Everyone can use PubMed

We need to remember –

- Identify the correct indexing term - MeSH terms
- Decide on the connector - Boolean operators (AND/ OR/NOT)
- Start with the Clinical Queries filter
  - Apply FILTERS, especially when there are many references or if you need to distinguish between the types of studies found (optional)
  - Use filters when conducting a traditional PubMed search

A “search” takes but a few seconds... so don’t worry about getting everything right the first time -
Searching is a skill and like all skills, it takes practice!

Jane G’s Question

Will orthodontic treatment improve symptoms of TMD?

Strategy #2 – Using PubMed

Will orthodontic treatment improve symptoms of TMD?
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*No findings related to dentistry*

**Results**

- **Temporomandibular Joint Disorders**
  - Added: and Orthodontics
  - Results = 59 (vs. 232)
  - Click on See all (59)
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Check off the references you want and then click on Send to:

Patients with potential malignant oral lesion
Oral CDx or Velscope
Visual & tactile examination

"Do adjunctive devices increase earlier detection of oral cancer?"

In patients with potential malignant oral lesion, will using Oral CDx or Velscope, compared to a visual & tactile exam, increase early detection & Dx of malignant lesions?
Patients at risk for future dental caries
CRA systems (e.g., CAMBRA, Cariogram, ADA, AAPD)
None
Predict future caries development

"Are CRA systems able to predict future caries?"
"In patients at risk for dental caries, are caries risk assessment systems able to predict future caries development?"

Searching Time
Have fun!

EBDM Online Courses
2 online CE courses related to EBDM and Formulating Good Clinical Questions, and Strategies for Searching the Literature Using PubMed.

2. Under Search Course Listings, look under Topic
3. Scroll down to Electives
4. Click on the little magnifying glass near the Assignment Number box
5. You should see #311 (EBDM) and #340 (Searching PubMed)
   - They are ADA CERP AND AGD PACE approved, free and total 5 hours of CE if you Register (top of the homepage). If you do not Register, you still can take the courses, however you will not be able to take and submit the quiz at the end, which generates the CE credit.

Thank you!
Happy Searching!