

## ■ REVIEWS OF WEB SITES

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### Medical World Search

**URL:** <http://www.mwsearch.com/>

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**Principles:** Humbert H. Suarez, M.D., Ph.D., Ifay F. Chang, Ph.D., Xiaolong Hao, Ph.D.

The World Wide Web contains an immense, disorganized, collection of information on every conceivable subject. The magnitude of the Web remains the medium's greatest strength and most obvious weakness. Many of us have had the opportunity to search for information on-line, often with mixed results. Locating relevant information, especially within time constraints, can be a difficult task. The "generic" search engines (Alta Vista, Lycos, Yahoo, Excite) catalog all information on the Web. As such, finding medical information using any of the traditional search engines can be a daunting task.

Medical World Search (MWS), developed by TLC Information Services of Katonah, New York, is the first search engine tailored specifically to medical information. The major goals of MWS are: (1) to provide a search engine that operates exclusively on medical web sites, and (2) to facilitate medical searches by using a medical thesaurus (Unified Medical Language System-UMLS) that interprets medical terminology and integrates synonyms into the user's original search.

Medical World Search understands more than 500,000 medical terms. The UMLS thesaurus combines multiple medical vocabularies including the National Library of Medicine's Medical Subject Headings (MeSH), the International Classification of Diseases (ICD-9-CM), the Systematic Nomenclature for Medicine (SNOMED), and the Current Procedural Terminology (CPT).

Medical World Search initially searches its own database for terms and concepts. MWS can expand its search by querying the major search engines. "Hits" are returned in order of relevance (based on the number of times the term or concept appears in the document and the length of the page). The site makes it easy to expand or focus a search with an intuitive interface. It is also possible to perform "Boolean Queries." It is common to quickly locate a large number of relevant medical links with few extraneous data. Registered users have their

past 10 searches and past 10 web sites cataloged for easy access.

The results are astounding.

As an example of the power of this tool, I typed "malignant hyperthermia" into the query window of MWS. Additional search words automatically added to my query were: "malignant hyperpyrexia," "fever, malignant," and "hyperpyrexia, fulminating." I was rewarded with 73 medical links, each containing some valuable information on malignant hyperthermia. There were few non-relevant links. At any point, it was possible to focus my search, expand its breadth, or conduct a new search entirely.

My only complaint about the site pertains to its interface. It is not currently possible to have more than 10 links displayed at a time. I would like to be able to alter this number at will. It would also be helpful to see a "relevance rank," much like Excite or Metacrawler. This number would tell me how close to my search the engine thinks it has come.

### Summary

Overall, I think this site stands head-and-shoulders above any of the other search engines when it comes to locating medical information on the web. With minor revisions, it could become the model for all "knowledge specific" search engines. I suspect we will see many more of these focused search engines in the future. For now, all of my medical on-line searches begin with this wonderful tool.

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