

PUBMED, A TOOL FOR PROFESSIONALS ?

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JUIN 2007

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PUBMED IS A PORTAL

WHAT IS A PORTAL ?

- A REFERENCE SITE
- PANEL OF RESOURCES
- SERVICES
- IN A FIELD

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RESOURCES ?

⇒ BIOMEDICAL RESOURCES

⇒ MEDLINE

⇒ OTHER DB

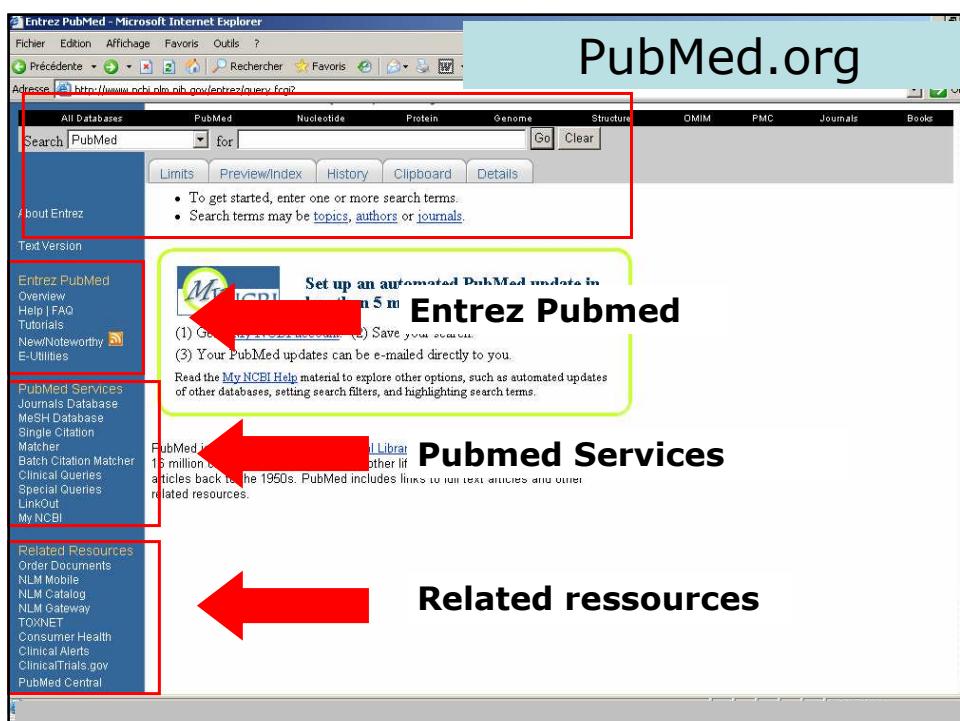
⇒ TOOLS :

JOURNALS DATABASE, MESH
DATABASE, SINGLE CITATION
MATCHER, CLINICAL QUERIES, MY
NCBI (CUBBY), ACCÈS À DES DB...

⇒ LINKS TO NLM

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ENTREZ PUBMED

- TEXT VERSION
- OVERVIEW DESCRIPTION OF PUBMED.
- HELP
- FAQ
- NEW/NOTEWORTHY : BRIEF ANNOUNCEMENTS HIGHLIGHTING RECENT ENHANCEMENTS AND CHANGES TO THE PUBMED, JOURNALS, AND MESH DATABASE

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PUBMED SERVICES

- JOURNALS DATABASE : 4800 TITLES
- MESH DATABASE : 22 000 WORDS
- SINGLE CITATION MATCHER
- CLINICAL QUERIES : FILTERS TO AID CLINICIANS TO SEARCH LITTÉRATURE FOR RELEVANT CLINICAL ARTICLES
- LINKOUT ACCÈS : LINKS TO RELEVANT WEB ACCESSIBLE RESOURCES (ALSO FULL TEXT)
- MY NCBI : CUSTOMIZE YOUR SEARCH EXPERIENCE (QUERRIES, UPDATE...)

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RELATED RESSOURCES

- **TOXNET®** : INFORMATION RESOURCES AND SERVICES IN TOXICOLOGY, ENVIRONMENTAL HEALTH, CHEMISTRY, AND HIV/AIDS.
- **CONSUMER HEALTH** : CAREFULLY SELECTED LINKS TO WEB RESOURCES WITH HEALTH INFORMATION.

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AND ALSO...

- **CLINICAL ALERTS** : NIH-FUNDED CLINICAL TRIALS
- **CLINICAL TRIALS** : UPDATED INFORMATION ABOUT FEDERALLY AND PRIVATELY SUPPORTED CLINICAL RESEARCH IN HUMAN VOLUNTEERS

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DIRECT LINKS TO NCBI SPECIAL DB

The screenshot shows the NCBI homepage with the URL <http://www.ncbi.nlm.nih.gov/sites/entrez?db=PubMed&tool=toolbar>. The page features the NCBI logo and the PubMed logo. Below the logo, there is a banner for the National Library of Medicine and the National Institutes of Health. A navigation bar at the top includes links for All Databases, PubMed, Nucleotide, Protein, Genome, Structure, OMIM, PMC, Journals, and Books. Red arrows point from the text labels below to the corresponding links in the navigation bar.

**NUCLEOTIDE : SEQUENCE DATABASE
(INCLUDES GENBANK)**

PROTEIN : SEQUENCE DATABASE

GENOME : WHOLE GENOME SEQUENCES

**STRUCTURE : THREE-DIMENSIONAL
MACROMOLECULAR STRUCTURES**

TAXONOMY : ORGANISMS IN GENBANK

**OMIM, ONLINE MENDELIAN : INHERITANCE IN
MAN. THIS DATABASE IS A CATALOG OF
HUMAN GENES AND GENETIC DISORDERS**

MEDLINE ?

- BIBLIOGRAPHICAL DATABASE
 - 4800 BIOMEDICAL JOURNALS
 - USA AND 70 OTHER COUNTRIES
- 17 000 000 ARTICLES
- DEVELOPED BY :
 - NCBI (NATIONAL CENTER FOR BIOTECHNOLOGY INFORMATION)
 - NLM (NATIONAL LIBRARY OF MEDICINE)
 - EDITORS IN BIOMEDICAL FIELD
- FROM 1950 TO 2007
- FREE ACCESS SINCE 1997

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MEDLINE IS A DATABASE

- DEFINED INFORMATION : BIBLIOGRAPHIC REFS
- ORGANISED : DATA STRUCTURE
- CONTROLLED : INDEXATION OF THE ARTICLES

=>**RULES**

=>**STRUCTURE** = RECORDS AND FIELDS

HOW DO THEY MAKE MEDLINE ?

- ARTICLES ARE INDEXED
- DESCRIPTORS = SPECIFIC AND APPROPRIATE TERMS (MESH)°
- = FROM 15 TO 25
- OTHER DESCRIPTORS :
 - AGE GROUPS, POPULATION, HUMAIN VS ANIMALS, PUBLICATION TYPE, ETC...

MESH

- IS A THESAURUS : STRUCTURED INFORMATION
- PRODUCED BY THE NATIONAL LIBRARY OF MEDICINE (NLM) SINCE 1960
- 22 000 WORDS
- SUBHEADINGS
- STRUCTURE
=> RULES => KNOWING HOW TO USE IT

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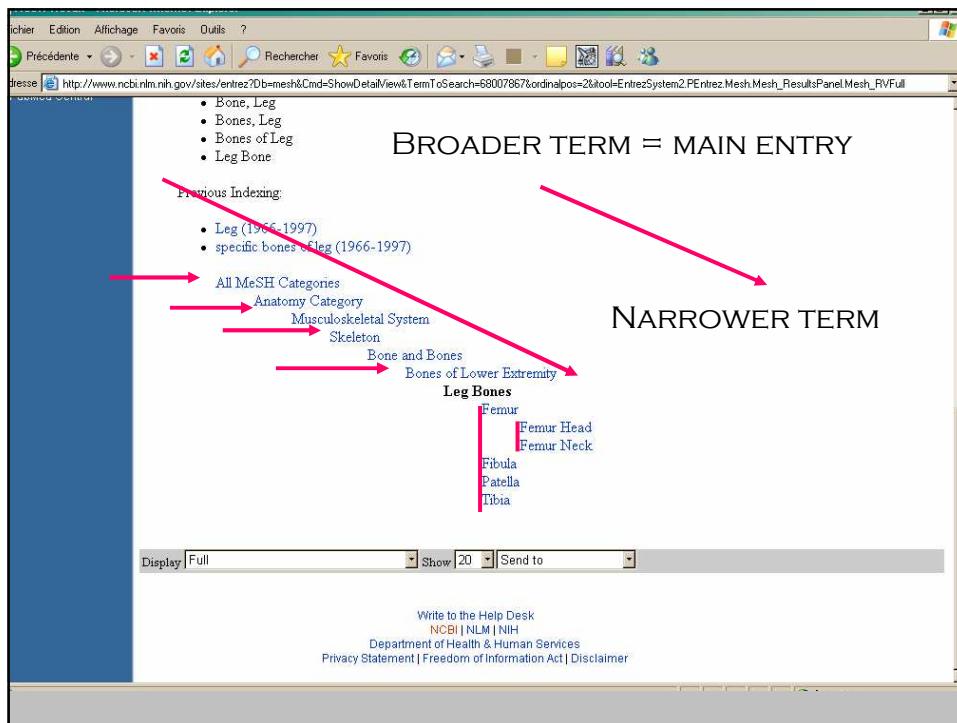
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STRUCTURE

- | | |
|--|---|
| A. Anatomy | I. Anthropology, |
| B. Organisms | Education, |
| C. Diseases | Sociology and |
| D. Chemical and Drugs | Social Phenomena |
| E. Analytical,
Diagnostic and
Therapeutic
Techniques and
Equipment | J. Technology, Industry,
Agriculture |
| F. Psychiatry and
Psychology | K. Humanities |
| G. Biological Sciences | L. Information Science |
| H. Natural Sciences | M. Named Groups |
| | N. Health Care |
| | V. Publication
Characteristics |
| | Z. Geographic Locations |

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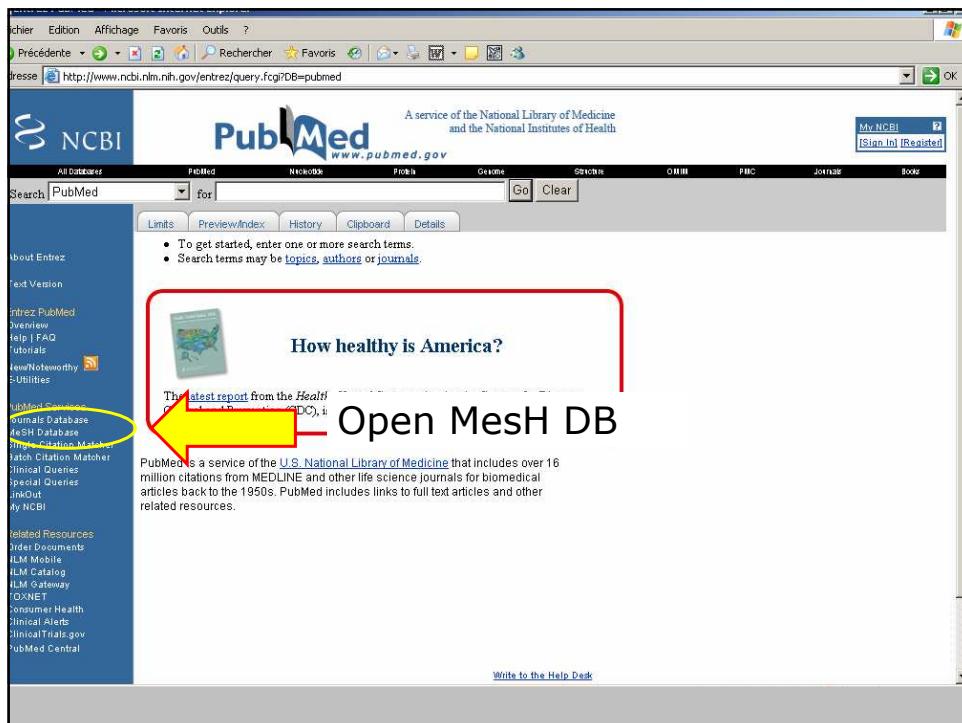


WHY USING MESH VOCABULARY ?

- => win time
- => be precise
- => manage synonymy
- => helps you to write your request

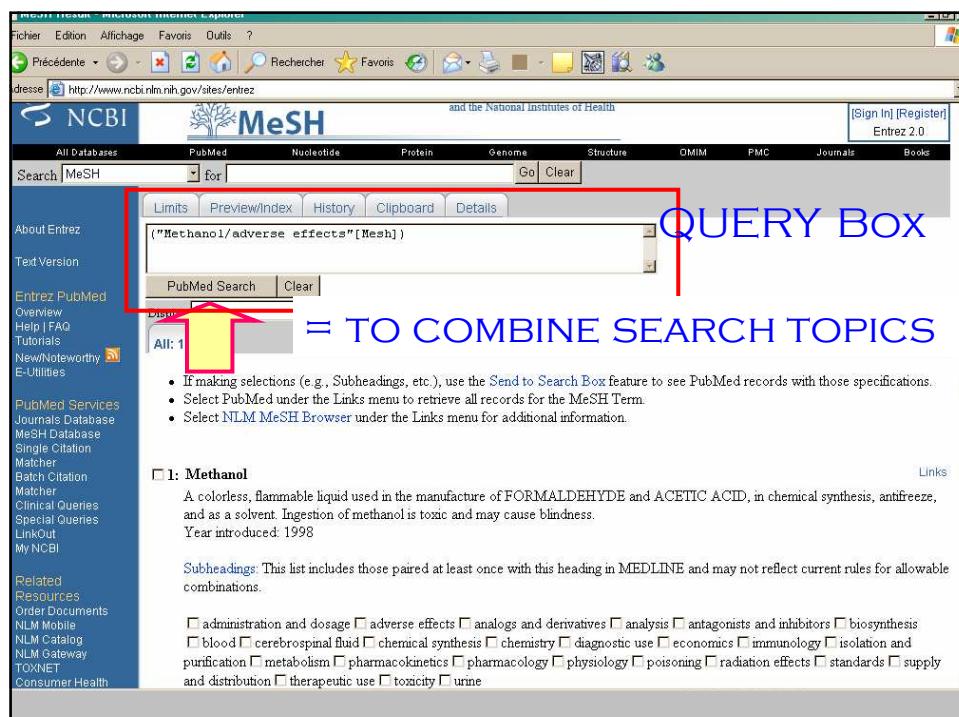
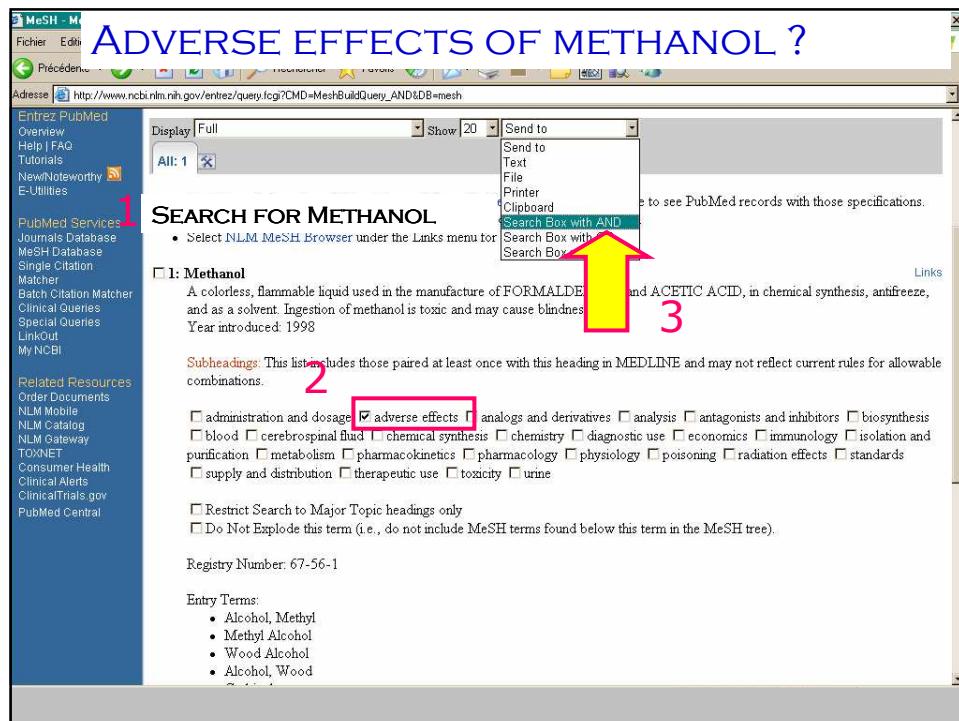
3 possibilities :

1. word = **descriptor**
2. word = **synonym**
3. word ≠ **descriptor** ≠ **synonym**



This screenshot shows the detailed view for the term 'Asthma' on PubMed. The page is titled 'DETAIL : ASTHMA'. The left sidebar has a red box around it. The main content area has several red boxes highlighting different sections:

- 1: Asthma**: A form of bronchial disorder associated with airway obstruction, marked by recurrent attacks of paroxysmal dyspnea, with wheezing due to spasmodic contraction of the bronchi.
- Subheadings**: This list includes those paired at least once with this heading in MEDLINE and may not reflect current rules for allowable combinations. It lists various medical and scientific terms.
- Entry Terms**: A list of specific terms related to asthma.
- See Also**: A list of related terms.
- SYNONYMS**: A list of alternative names for the term.
- Related terms**: A list of other medical terms related to the subject.
- Disease Category**: A link to the broader category of diseases.



PHARMACOLOGIC ACTION / DRUG INFO

- « drug and chemical » termes
- No branch with all drug particular effects
 - All antioxydants
- All MeSH Categories
 - Chemicals and Drugs Category +
- Aspirin
 - Registry Number: 50-78-2
 - Pharmacological Action : liste
 - Anti-Inflammatory Agents, Non-Steroidal
 - Fibrinolytic Agents
 - Platelet Aggregation Inhibitors
 - Cyclooxygenase Inhibitors

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The screenshot shows a Microsoft Internet Explorer window displaying the MeSH (Medical Subject Headings) database. The main title is "ASPIRIN". Below it, the text "Cas number" is highlighted with a pink box. To the right, the word "synonyms" is written. At the bottom right, the text "Pharmacological action" is written. The page content includes:

- Registry Number:** 50-78-2
- Entry Terms:**
 - 2-(Acetoxy)benzoic Acid
 - Acetylsalicylic Acid
 - Acid, Acetylsalicylic
 - Poloprin
 - Polopryna
 - Salprin
 - Acetylprin
 - Colfart
 - Easprin
 - Endosprin
 - Micrastin
 - Magaceyl
 - Ecotrin
 - Dispril
 - Aloxiprimum
 - Acetysal
 - Solupsan
 - Zorprin
- Pharmacologic Action:**
 - Anti-Inflammatory Agents, Non-Steroidal
 - Fibrinolytic Agents
 - Platelet Aggregation Inhibitors
 - Cyclooxygenase Inhibitors

PLASTIC SURGERY OF FACE

Adresse : http://www.ncbi.nlm.nih.gov/sites/entrez?Db=mesh&Cmd>ShowDetailView&TermToSearch=68005145&ordinalpos=1&tool=EntrezSystem2.PEntrez.Mesh.Mesh_ResultsPanel.Mesh_RVDocSum

Search MeSH for ["Surgery, Plastic" [Mesh]]

Limits Preview/Index History Clipboard Details

PubMed Search Clear

Display Full Show 20 Send to

All: 1

If making selections (e.g., Subheadings, etc.), use the **Send to Search Box** feature to see PubMed records with those specifications.

- Select PubMed under the Links menu to retrieve all records for the MeSH Term.
- Select NLM MeSH Browser under the Links menu for additional information.

1: Face

The anterior portion of the head that includes the skin, muscles, and structures of the forehead, eyes, nose, mouth, cheeks, and jaw.

Subheadings: This list includes those paired at least once with this heading in MEDLINE and may not reflect current rules for allowable combinations.

abnormalities analysis anatomy and histology blood supply cytology drug effects embryology enzymology
 immunology innervation metabolism microbiology parasitology pathology physiology physiopathology
 radiation effects radiography radionuclide imaging surgery ultrasonography ultrastructure virology

Restrict Search to Major Topic headings only.
 Do Not Explode this term (i.e., do not include MeSH terms found below this term in the MeSH tree).

Entry Terms:

The anterior portion of the head that includes the skin, muscles, and structures of the forehead, eyes, nose, mouth, cheeks, and jaw.

Subheadings: This list includes those paired at least once with this heading in MEDLINE and may not reflect current rules for allowable combinations.

abnormalities analysis anatomy and histology blood supply cytology drug effects embryology enzymology
 immunology innervation metabolism microbiology parasitology pathology physiology physiopathology
 radiation effects radiography radionuclide imaging surgery ultrasonography ultrastructure virology

Restrict Search to Major Topic headings only.
 Do Not Explode this term (i.e., do not include MeSH terms found below this term in the MeSH tree).

Entry Terms:

- Faces

All MeSH Categories

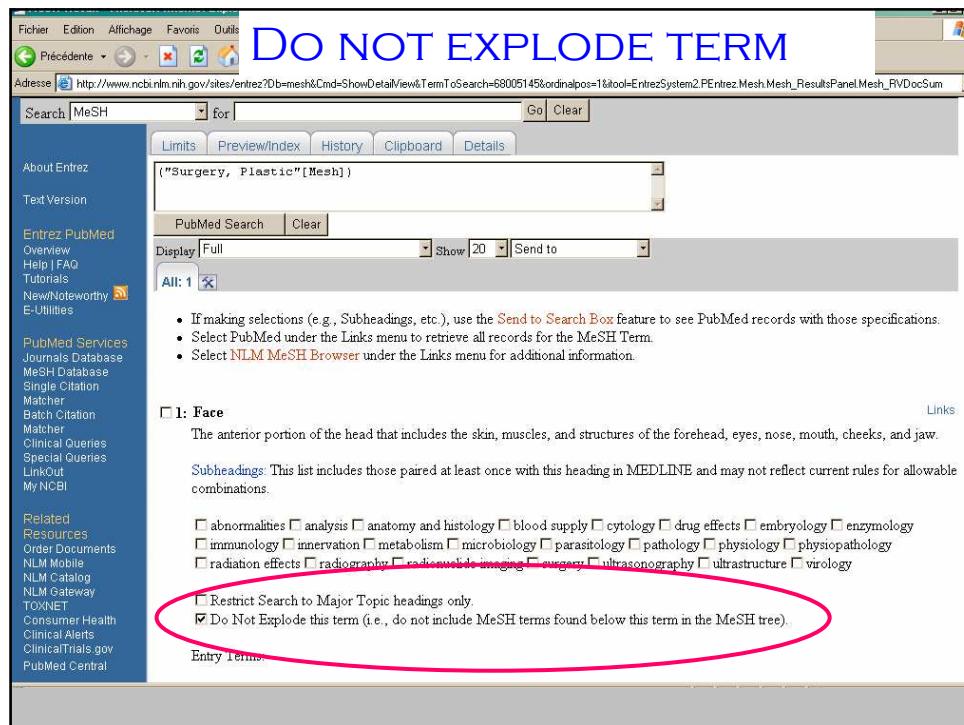
Anatomy Category

Body Regions

Head

Face

Cheek
Chin
Eye
 Eyebrows
 Eyelids +
Forehead
Mouth
 Lip
Nose
Parotid Region



WHY ?

- WITH « NO EXPLOSION » 1683 ANSWERS
- WITHOUT : 4122 ANSWERS
 - LIP/SURGERY*, LIP NEOPLASMS/SURGERY
 - EYEBROWS*, FOREHEAD/SURGERY*
 - SKIN AGING/DRUG EFFECTS*
 - MANDIBLE/PATHOLOGY,
MANDIBLE/SURGERY*
 - MAXILLA/PATHOLOGY,
MAXILLA/SURGERY*
 - ...

CONCLUSIONS MESH

- STRUCTURED SEARCH
- USEFULL = DEFINITION, SYNONYMS
- MORE INFO : DRUG AND CHEMICAL
- HELPS YOU TO WRITE YOUR REQUEST

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SEARCHING IN PUBMED

- SIMPLE REQUEST
 - SUBJECT (MESH), AUTHOR
- ADVANCED
 - «LIMITS»
 - «HISTORY»
- TOOLS : SINGLE CITATION MATCHER,
JOURNAL DB, « PREVIEW INDEX »

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BASIC RULES

- ENGLISH !!
- BLANCS BETWEEN WORDS
- DON'T USE STOPWORDS -
COMPLICATIONS **AFTER...WITH**,...
- BRACKETS !!!
— 1,4-BIS CHLOROMETHYL BENZENE

NOT

— 1,4-BIS (CHLOROMETHYL) BENZENE

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WHY ?

1,4-BIS CHLOROMETHYL BENZENE

—"1,4-
BIS(CHLOROMETHYL)BENZENE"[SUBSTANCE
NAME] OR 1,4-BIS CHLOROMETHYL
BENZENE[TEXT WORD]

BUT

1,4-BIS (CHLOROMETHYL) BENZENE
—(1 [ALL FIELDS] AND 4-BIS[ALL FIELDS]) AND
CHLOROMETHYL[ALL FIELDS] AND
("BENZENE"[MESH TERMS] OR
BENZENE[TEXT WORD])

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- Syntax : *word* [field]
 - Brown[Au]
 - Tooth Extraction[mesh]
 - French[la]
 - vitamin b1[Text Word]
 - ...

AUTHORS IN MEDLINE ?

- Bone = 688 095 but Bone [au] 1493
- Wang = 145 352
- Zhou [AU] = 32 967
- Collins cité 29 706
- D Collins cited 1562 times
 - Collins D [AU] cited 1170 times
 - "Collins David"[Author] cited 74 times

TRANSLATION ?

- Le grand dictionnaire terminologique (Ca):
http://www.grand-dictionnaire.com/btml/fra/r_motclef/index1024_1.asp
Office Québécois de la Langue Française = 3 million words – Fr-Eng-Latin
- http://ist.inserm.fr/basismesh/mesh_contacts.html

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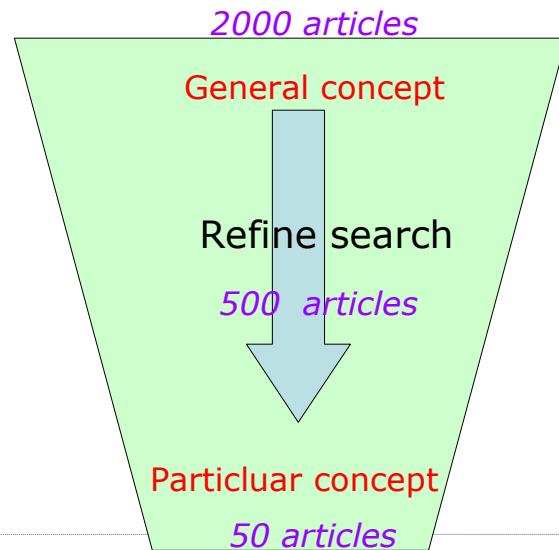
TREATMENT OF THE HOSPITAL-ACQUIRED INFECTIONS BY THE HYGIENE OF HANDS

- MESH :
 - nosocomial = cross Infections
 - Hygiene ?
 - Hand = item nr 20 = handwashing
- ("Handwashing"[Mesh]) AND ("Cross Infection"[Mesh])
- Via subheadings
 - ("Cross Infection/prevention and control"[Mesh])

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HOW TO REDUCE THE ANSWERS !!!



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LIMITS

=>LIMIT A SEARCH

=>CHOSE :

- PUBLICATION TYPES
- LANGUAGES
- AGE GROUPES
- STUDIES ON HUMAN OR ANIMAL
- GENDER MALE OU FEMALE ()
- DATE : PUBLICATION DATE
- PUBMED ENTREZ DATE
- REFERENCES WITH ABSTRACT
- ...

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HYPERTENSION DRUG THERAPY

Search [PubMed] for ["Hypertension/drug therapy"[Mesh]] Go Clear Save Search

All: 44046 Results 8200

Items 1 - 20 of 44046

Related Articles, Links

1: Cates CJ. Misuse of confidence intervals threatens conclusions. BMJ. 2007 May 19;334(7602):1020. No abstract available. PMID: 17510116 [PubMed - indexed for MEDLINE]

2: Nedogoda SV. [Combined antihypertensive therapy: are all combinations equally beneficial?] Kardiologiya. 2007;47(2):57-64. Russian. No abstract available. PMID: 17506213 [PubMed - indexed for MEDLINE]

3: [No authors listed] Ask the doctors. My husband has high blood pressure. His cardiologist switched him from a beta blocker to an ACE inhibitor because his pulse readings were below 50. Since the switch, his blood pressure readings have averaged 160/88 compared with 125/75 on the beta-blocker. What should we do next? Heart Advis. 2007 Apr;10(4):12. No abstract available. PMID: 17494205 [PubMed - indexed for MEDLINE]

4: [No authors listed] ACE inhibitors: who needs them? Heart Advis. 2007 Apr;10(4):7. No abstract available. PMID: 17494202 [PubMed - indexed for MEDLINE]

USING LIMITS

Search by Author Add Author

Search by Journal Add Journal

Full Text, Free Full Text, and Abstracts

Links to full text Links to free full text Abstracts

Dates

Published in the Last: Any date
 Added to PubMed in the Last:

- Humans
- Animals

Humans or Animals

5 years

Specify date range (YYYY/MM/DD)

Languages

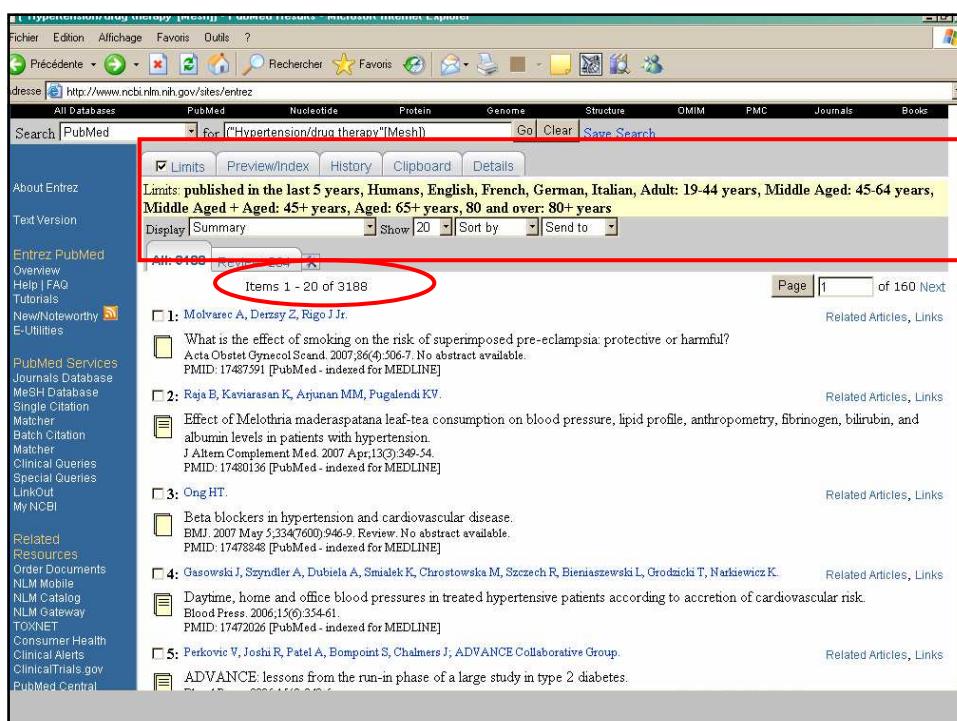
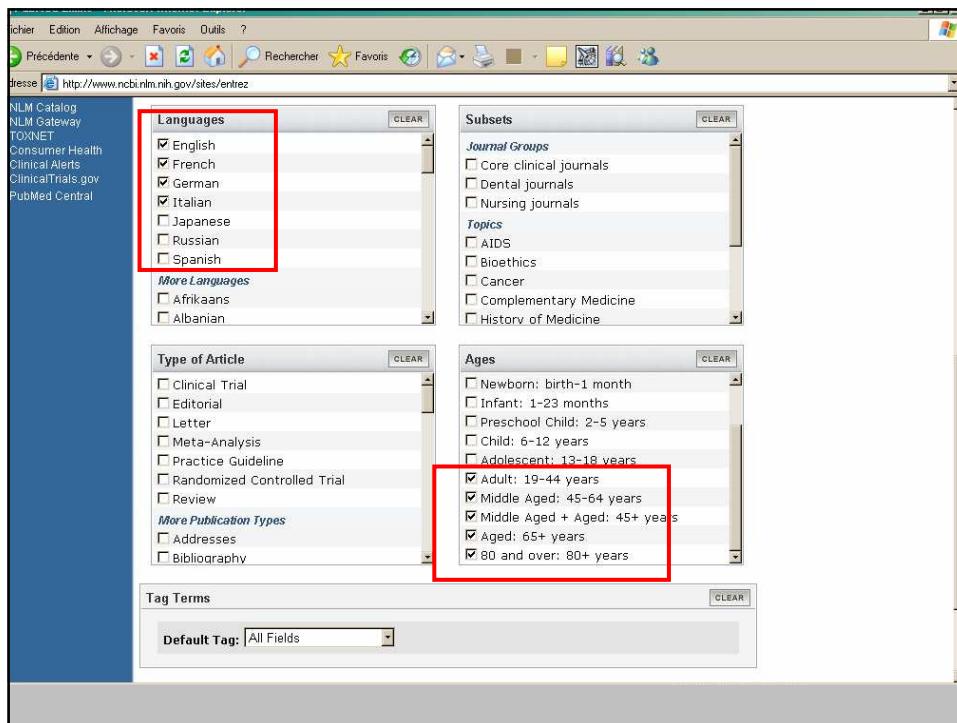
- English
- French
- German
- Italian
- Japanese
- Russian
- Spanish
- More Languages**
- Afrikaans
- Alбанian

Journal Groups

- Core clinical journals
- Dental journals
- Nursing journals

Topics

- AIDS
- Bioethics
- Cancer
- Complementary Medicine
- History of Medicine



DISPLAY FORMATS

The screenshot shows the NCBI Entrez search results page. The title "DISPLAY FORMATS" is overlaid in blue at the top right. On the left, a sidebar lists various PubMed services and related resources. The main area displays search results for "methanol poisoning". The "Display" dropdown is set to "Summary". The results list includes items 1 through 6, each with a checkbox, a thumbnail, and a brief abstract. Item 1 is highlighted with a yellow box and labeled "XML". The "Send to" button is visible above the results list. The page number "1 of 66" is at the bottom right.

MANAGING YOUR REFERENCES

The screenshot shows the NCBI Entrez search results page. The title "MANAGING YOUR REFERENCES" is overlaid in blue at the top left. The interface is similar to the previous one, with a sidebar and a results list. The "Display" dropdown is set to "Summary". The results list includes items 1 through 6. A red arrow points from the "Clipboard" option in the "Send to" menu to the clipboard icon in the sidebar. The "Send to" menu also includes options like "Text", "Printer", "File", and "E-mail". The page number "1 of 3" is at the bottom right.

File

Printer

Clipboard

E-Mail

HISTORY

- Holds up to 100 searches and links
- 8 hours
- Retouch a query
- Combine querries

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The screenshot shows a Windows desktop with a PubMed search results window open. The URL in the address bar is <http://www.ncbi.nlm.nih.gov/sites/entrez>. The search term in the search bar is "for (#18) AND (#19)". The "History" tab is highlighted with a red circle. A context menu is open over the second search result, with the "Options" item highlighted by a red box. The menu items are: AND, OR, NOT, Delete, Go, Details, and Save in My NCBI.

Search	Most Recent Queries	Time	Result
#24 Search ("Methanol/adverse effects"[Mesh]) Limits: published in the last 5 years, Humans, All Adult: 19+ years	04:43:27	94	
#23 Search ("Methanol/adverse effects"[Mesh]) Limits: published in the last 5 years, Humans	04:42:57	143	
#22 Search ("Methanol/adverse effects"[Mesh])	04:42:43	1064	
#19 Search ("Handwashing"[Mesh]) AND ("Cross Infection"[Mesh]) Infection/prevention and control"[Mesh]	04:37:01	884	
#20 Search ("Handwashing"[Mesh]) AND ("Cross Infection"[Mesh]) Infection/prevention and control"[Mesh]	04:36:45	13746	

Searched History - Microsoft Internet Explorer

Fichier Edition Affichage Favoris Outils ?
Précédentes > Rechercher Rechercher Favoris

adresse http://www.ncbi.nlm.nih.gov/sites/entrez

Limits Preview/Index History Clipboard* Details

About Entrez
Text Version
Entrez PubMed
Overview Help | FAQ Tutorials New! Noteworthy E-Utilities
PubMed Services Journals Database MeSH Database Single Citation Matcher Batch Citation Matcher Clinical Queries Special Queries LinkOut My NCBI
Related Resources Order Documents NLM Mobile NLM Catalog NLM Gateway TOXNET Consumer Health Clinical Alerts ClinicalTrials.gov PubMed Central

Search Most Recent Queries Time Result

Search	Most Recent Queries	Time	Result
#26 Related Articles for PubMed (Select 16515443)		05:00:19	849
#19 Search ("Handwashing"[Mesh]) AND ("Cross Infection"[Mesh])		05:00:08	884
#22 Search ("Methanol/adverse effects"[Mesh])		04:59:15	1064
#23 Search ("Methanol/adverse effects"[Mesh]) Limits: published in the last 5 years, Humans		04:59:09	143
#25 Search (#18) AND (#19)		04:58:38	808
#24 Search ("Methanol/adverse effects"[Mesh]) Limits: published in the last 5 years, Humans, All Adult: 19+ years		04:43:27	94
#18 Search (" Cross Infection/prevention and control"[Mesh])		04:36:48	13746
#0 pubmed clipboard		05:00:08	7

Clear History

D JACOBSEN WROTE SOMETHING ABOUT METHANOL POISONING IN 2003

PubMed Single Citation Matcher

Entrez PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Books

About Entrez Text Version Entrez PubMed Overview Help | FAQ Tutorials New! Noteworthy E-Utilities PubMed Services Journals Database MeSH Database Single Citation Matcher Batch Citation Matcher Clinical Queries Special Queries LinkOut My NCBI Related Resources Order Documents NLM Mobile NLM Catalog NLM Gateway TOXNET Consumer Health Clinical Alerts ClinicalTrials.gov PubMed Central

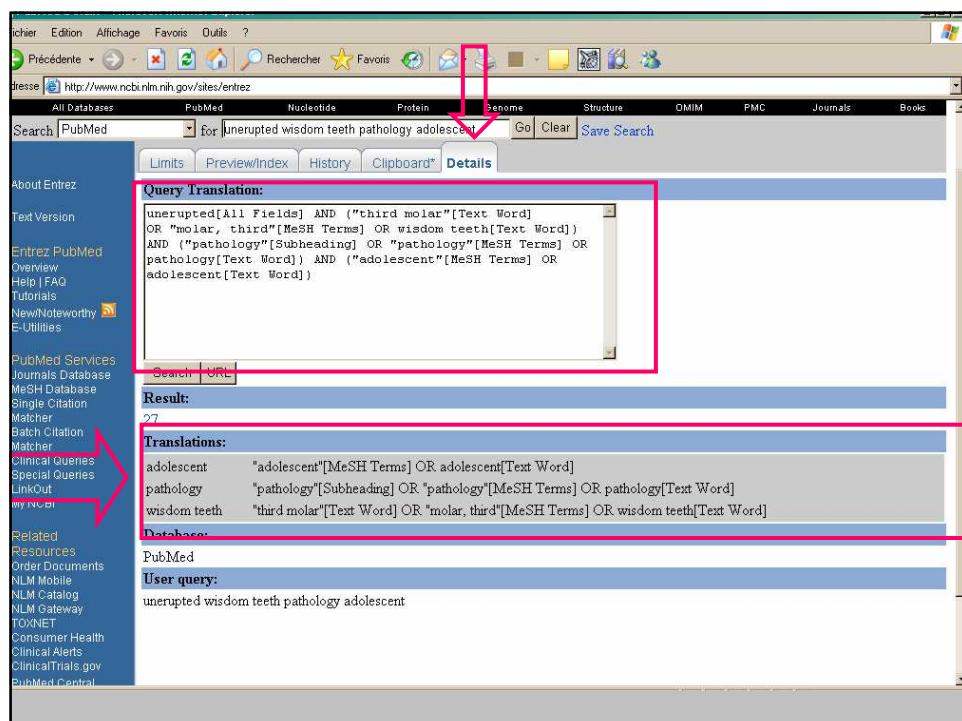
Journal:
Date: 2003 (month and day are optional)
Volume: Issue: First page:
Author name (see help): Jacobsen D
 Only as first author Only as last author
Title words: methanol poisoning
Go Clear

WRITING MY REQUEST IN PUBMED ?

- DRUG THERAPY ASTHMA CHILDREN
- UNERUPTED WISDOM TEETH PATHOLOGY ADOLESCENT
- COMPLICATIONS TEETH REMOVAL
- POISONING WITH METHANOL IN WINE
- DRUG THERAPY AFTER RENAL TRANSPLANT
- CHILD HYGIENE AND TARTAR

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**UNERUPTED TOOTH THIRD MOLAR
ADOLESCENT PATHOLOGY**

The screenshot shows the PubMed search interface. The search term entered is "unerupted tooth third molar adolescent pathology". The results page displays 22 items. The left sidebar contains links to various NCBI and PubMed services. The top right corner has links for "Sign In" and "Register" and "Entrez 2.0". The main content area includes sections for "Query Translation", "Result", "Translations", "Database", and "User query".

CONCLUSIONS

- PUBMED PORTAL IS A PROFESSIONAL TOOL
- KNOWING INFORMATION RETRIEVAL TOOLS
 - BOOL ALGEBRA, BRACKETS, THESAURUS...
- BE CREATIVE
 - DIFFERENT WAYS OF SEARCHING
 - VOCABULARY/SYNONYMS ...
- PUBMED PORTAL HAS LIMITS