



Information resources and Bibliography in Toxicology

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Poison information resources

- ❖ **Primary sources**
- ❖ **Secondary sources**
- ❖ **Tertiary sources**
- ❖ **Internet**

What is a Primary Sources?

- ❖ Primary sources are original materials/information on which other research is based .They are usually the first formal appearance of results in physical, print or electronic format.
- ❖ Report of scientific discoveries
- ❖ Results of experiments
- ❖ Results of clinical trials
- ❖ Factual, not interpretive

Primary sources

- Journals : Original articles
- Theses

Note :

The other articles such as review articles, articles of opinion, editorials, case reports, commentary... are not included.

Journals

- Adverse Drug Reactions and Toxicological Reviews
- Cell Biology and Toxicology
- Chemical research in Toxicology
- Comment on Toxicology
- Critical Review in Toxicology
- Current Advance in Toxicology
- Ecotoxicology and Environmental Safety
- Toxicological Sciences
- Toxicologic Pathology
- Archives of Toxicology,...

Primary sources benefits

- ❖ Current information
- ❖ Share opinions with other healthcare professionals
- ❖ Enhance communication with other healthcare professionals and consumers
- ❖ Show how others do currently
- ❖ Keep up with new developments in pathophysiology, diagnostic agents and therapeutic regimens

Primary sources limitations

- ❖ There is no guarantee that the article is accurate
- ❖ Many articles possess inadequacies that become apparent as the ability to evaluate drug information improves

What is a Secondary Sources?

- ❖ Secondary sources in the sciences are about the research and discoveries of other people, usually with the goal of providing an overview of the topic that allows readers to quickly become familiar with topic.
- ❖ Analyzes and interprets research results
- ❖ Analyzes and interprets scientific discoveries

Secondary Sources

- ❖ Indexing & abstracting services

- ❖ Databases

- Pub Med
- Science direct
- Google scholar
- Scopus
- SID
- Iranmedex
- Magiran,...

Secondary sources benefits

- ❖ Quick

- ❖ Selective

Secondary sources limitations

- ❖ Each one just reviews a finite number of journals
- ❖ Relying on only one service may hinder the thoroughness of literature search
- ❖ Describe only article from journals
- ❖ Difference in lag time among the available services: the interval between the publication and citation in an index (1 week medline /pubmed V.s 12 weeks Science Citation Index)
- ❖ Abstract may not include enough information

What is a Tertiary Sources?

Tertiary sources consist of information which is a distillation and collection of primary and secondary sources to provide background on a topic, idea, or event

Tertiary Sources

Textbooks

- Casarett & Doull's toxicology
- Modern Toxicology
- Goldfraks Toxicologic emergencies
- Clark's isolation & identification
- Clinical management of poisoning and drug overdose (Haddad),...

Computerized databases

- Micromedex
- Drugdex
- Poisondex
- Lexi – Comp,...

**Review articles are as
the tertiary Sources**

Tertiary sources benefits

Textbooks

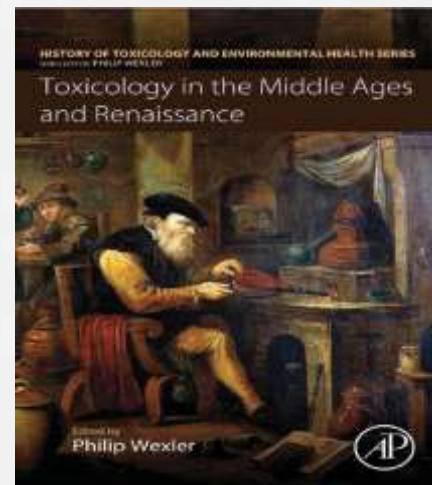
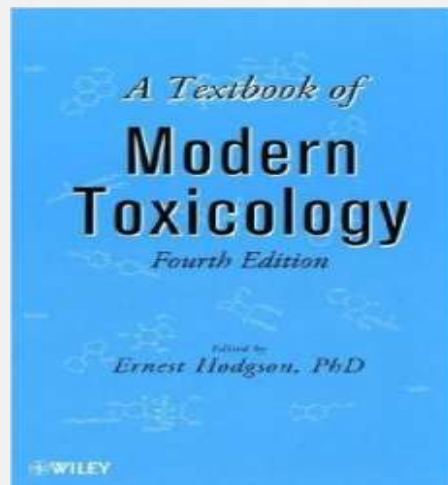
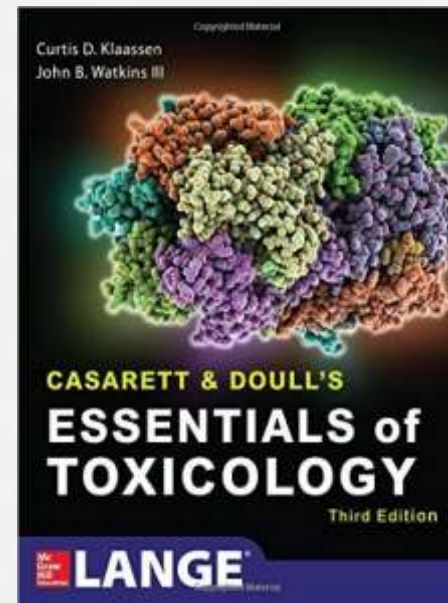
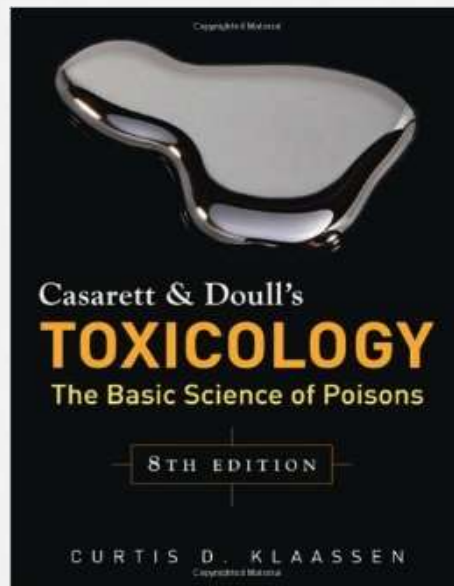
- ❖ Easy & convenient access
- ❖ Background information

Computerized databases

- ❖ Easy & convenient to use
- ❖ Referenced
- ❖ Update more frequently than textbooks
- ❖ Useful resources for poison & drug monographs, drug interactions

Tertiary sources limitations


- ❖ Several years to publish a text (not include the most recent development)
- ❖ Authors misinterpretation on the primary and Secondary resources
- ❖ Authors tendency to their own publication



Illustrated Handbook of Toxicology

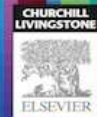
F.-X. Reichl
L. Ritter



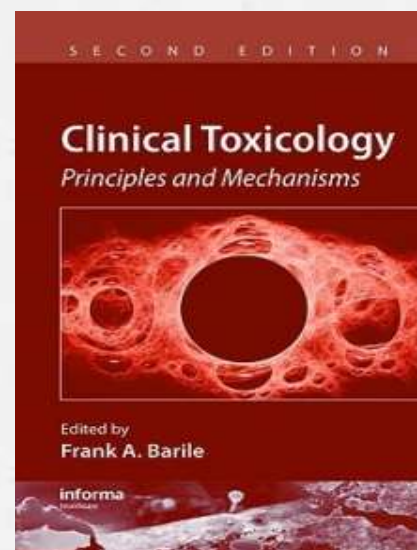
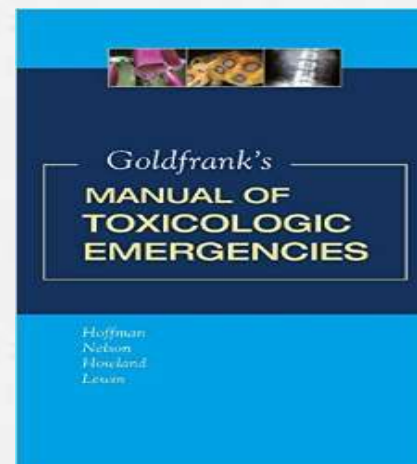
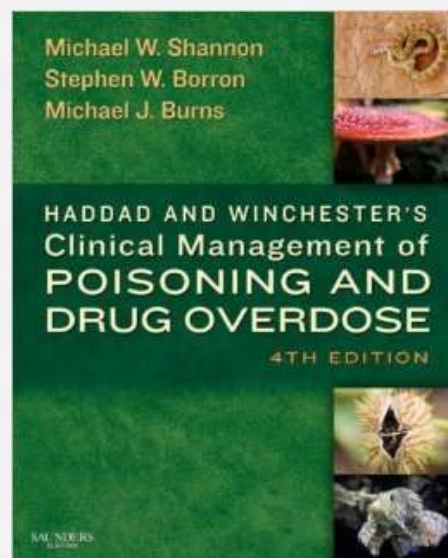
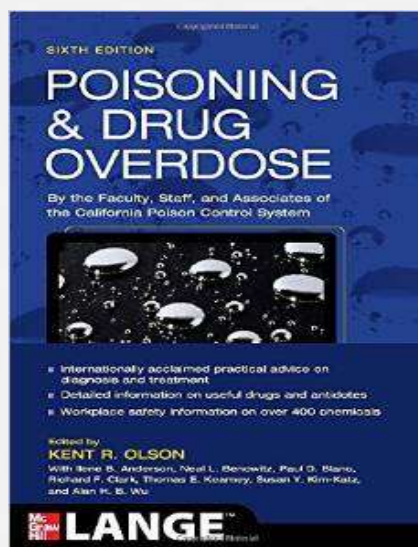
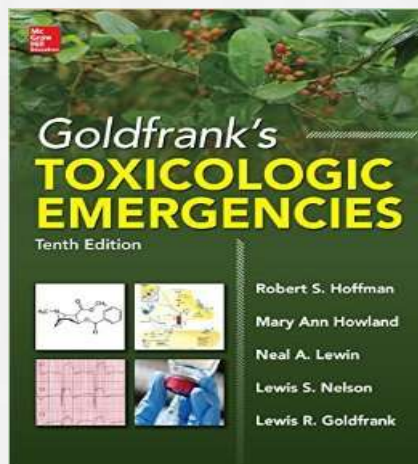
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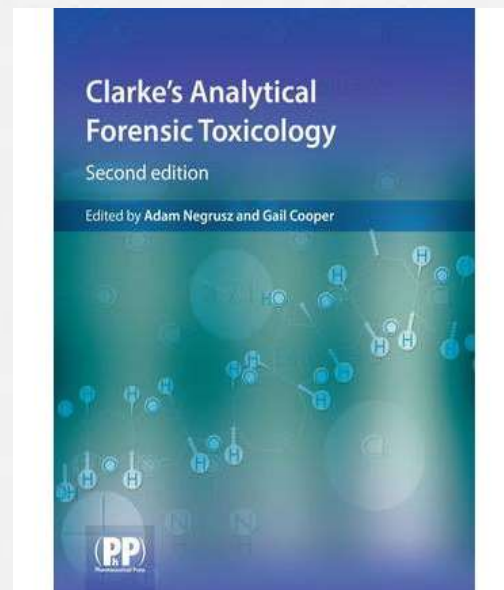
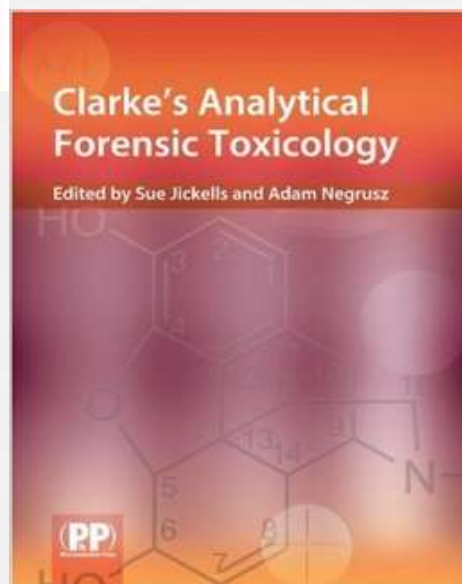
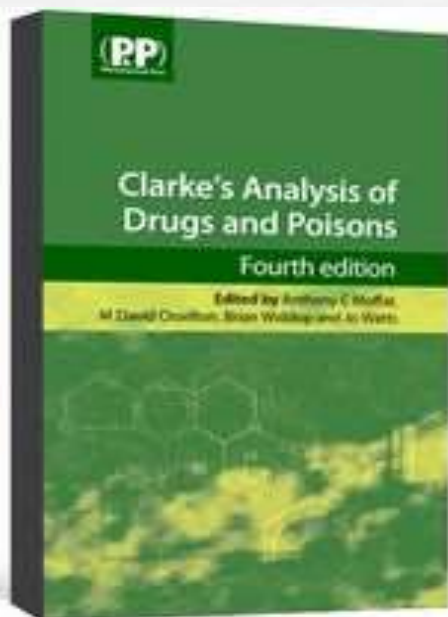
TOXICOLOGY HANDBOOK

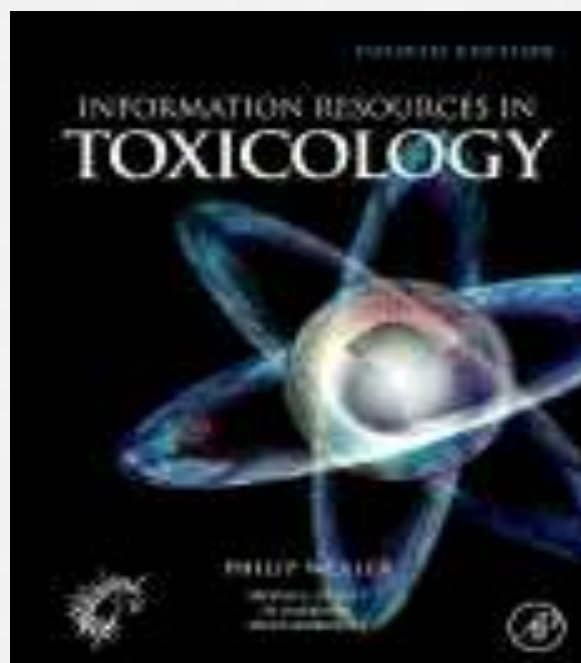
SECOND EDITION



Lindsay Murray
Frank Daly
Mark Little
Mike Cadogan







Mahdi Balali-Mood
Mohammad Abdollahi *Editors*

Basic and Clinical Toxicology of Organophosphorus Compounds

 Springer

Mahdi Balali-Mood
Mohammad Abdollahi *Editors*

Basic and Clinical Toxicology of Mustard Compounds

 Springer

THIRD EDITION
ENCYCLOPEDIA OF
TOXICOLOGY

EDITOR-IN-CHIEF
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ASSOCIATE EDITORS
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STACEY HARPER
VIRGINIA C. MOSER
SIDHARTHA RAY
JOSE TARAZONA
TIMOTHY J. WIEGAND



Internet

Web browsers

- Mozilla Firefox
- Microsoft Internet Explorer
- Google Chrome

Search engines

- Google
- Yahoo
- Alta Vista
- Bing
- Ask

Internet benefits

- ❖ Company specific information
- ❖ Issues currently in the news
- ❖ Regulatory information

Internet limitations

- ❖ May not be peer reviewed or edited before release
- ❖ Information & the person who posted it should be reliable
- ❖ Web site should be evaluated (author, location, sponsorship)
- ❖ Reputation of site (easy access, ability to give feedback)

Internet banks

INCHEM

Chemical Safety Information
from Intergovernmental
Organizations

www.inchem.org



IPC International Programme on Chemical Safety
INCHEM
Chemical Safety Information from Intergovernmental Organizations

Search options:

Full-text Search
Sample term: HCHO-2001

Chemical Identity Search
CAS Number:
Example: 100-44-6
or
Chemical Name or Synonym:
Sample Name:

Browse content using links below:

- Concise International Chemical Assessment Documents (CICADs)
- Environmental Health Criteria (EHC) Monographs
- Harmonization Project Publications
- Health and Safety Guides (HSGs)
- International Agency for Research on Cancer (IARC) - Summaries and Evaluations
- International Chemical Safety Cards (ICSCs)
- IPCS/CEC Evaluation of Antibodies Series
- Joint Expert Committee on Food Additives (JECFA) - Monographs and Evaluations
- Joint Meeting on Pesticide Residues (JMPPR)
- Keri-Riskline
- Poisons Information Monographs Archive (PIMA, 1989-2002)
- Screening Information Data Set (SIDS) for High Production Volume Chemicals
- UK Poisons Information Documents (UKPID)

International Programme on Chemical Safety (IPCS)  **World Health Organization** 

IOIMC INTER-ORGANIZATION PROGRAMME FOR THE SOUND MANAGEMENT OF CHEMICALS
A cooperative agreement among FAO, E.C., UNEP, UNCTAD, WHO, WMO, World Bank and UNEP

Home | About | Advanced Search | Help

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Please direct questions or comments about this server to extinfo@ccohs.ca




Internet banks

EPA

United States Environmental
Protection Agency

<https://www.epa.gov/>



The screenshot shows the EPA website homepage. At the top is the EPA logo and navigation links: "Environmental Topics", "Laws & Regulations", and "About EPA". A search bar is on the right. Below the navigation is a large banner for "About EPA" featuring a photo of the EPA headquarters in Washington, D.C. To the right of the banner is a section titled "Our Mission" with the text: "Our mission is to protect human health and the environment. [LEARN MORE ABOUT OUR MISSION AND WHAT WE DO.](#)"

Below the banner is a list of links: "EPA Administration", "Headquarters Offices", "Office of Inspector General", "Regional Offices", "Labs, Research Centers, Research Programs and Science Advisory Organizations", "Offices with a Geographic Focus", "Planning, Budget and Results", and "Working with us".

To the right of these links is a section titled "EPA Staff Directory" with a search form for "Last Name" and "First Name", and a "Search" button. Below this is a section titled "Featured Resources" with links to "EPA Administration", "EPA Science", "EPA Research Centers", "EPA Regional Offices", "EPA National Office", "EPA Headquarters", "EPA Regional Offices", "EPA National Office", and "EPA Headquarters".

Below the featured resources is a section titled "Map of EPA Offices, Labs and Research Centers Around the Nation". It includes a link to "View a map of EPA offices" and text stating: "Some of our locations are very close to each other and can only be distinguished if you: zoom in, or click on a blue dot and use the arrows near the top right corner of the pop-up to learn about those locations." It also includes a link to "Learn what EPA is doing in your state."

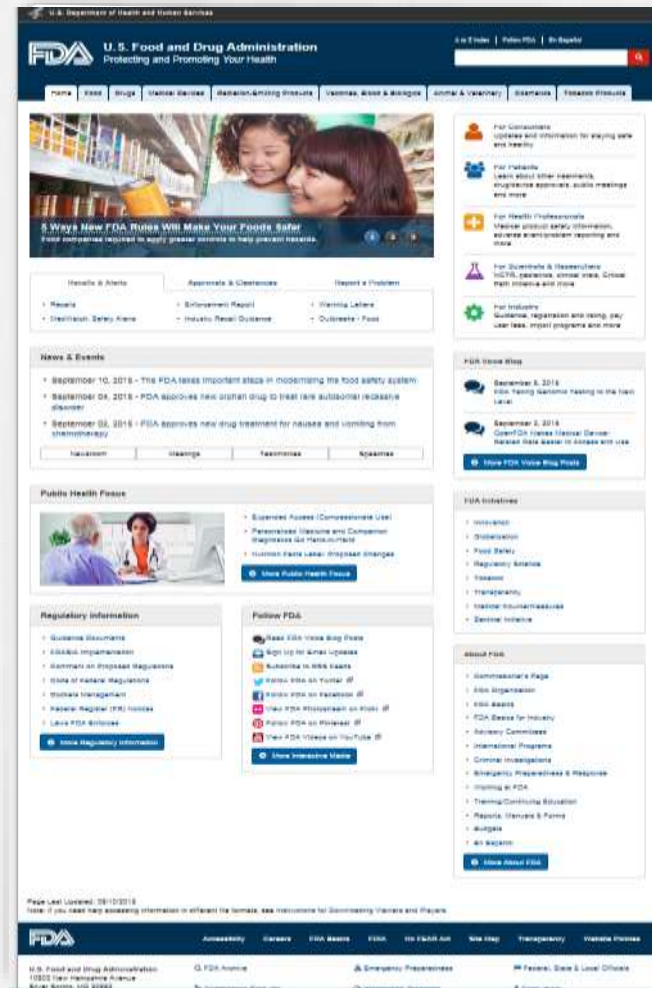
At the bottom of the page is a footer with the EPA logo and three columns of links: "Discover" (Accessibility, EPA Administration, Budget & Performance), "Connect" (Data.gov, Inspector General, Jobs), and "Ask" (Contact Us, Hotline, EPA Requests).

Internet banks

FDA

U.S. Food and Drug
Administration

www.fda.gov

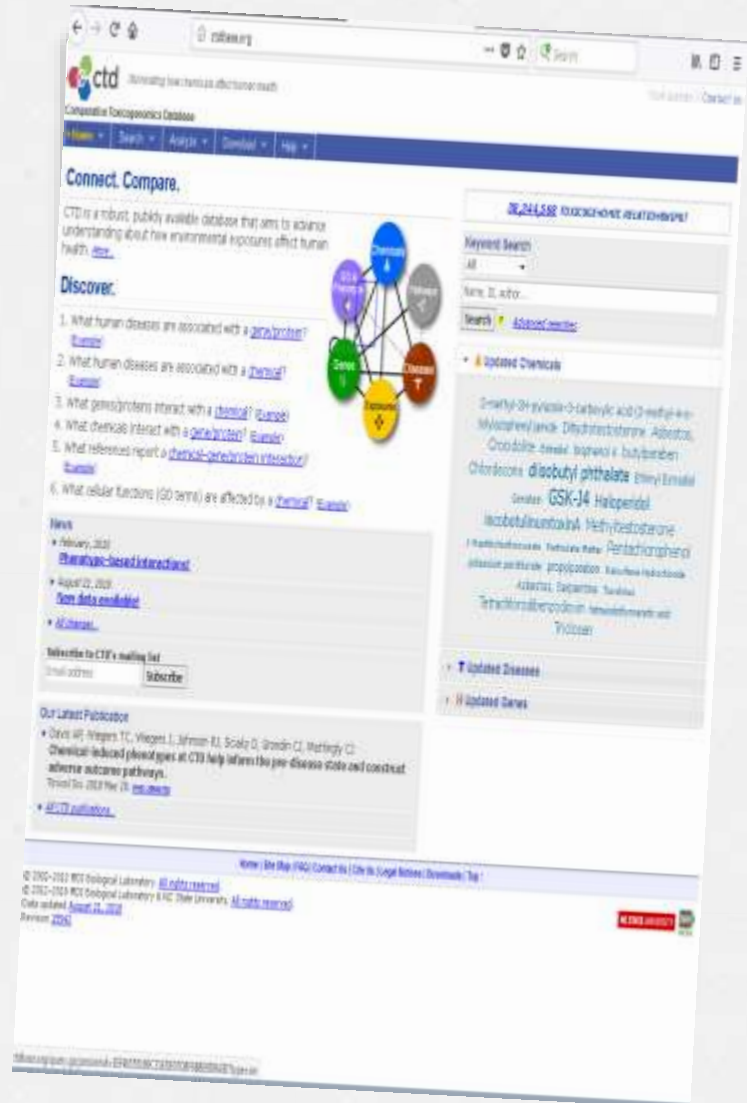


Internet banks

CTDBASE

The Comparative Toxicogenomics Database

<http://ctdbase.org/>



Internet banks

IPCS

International Programme on
Chemical Safety: WHO

www.who.int/ipcs

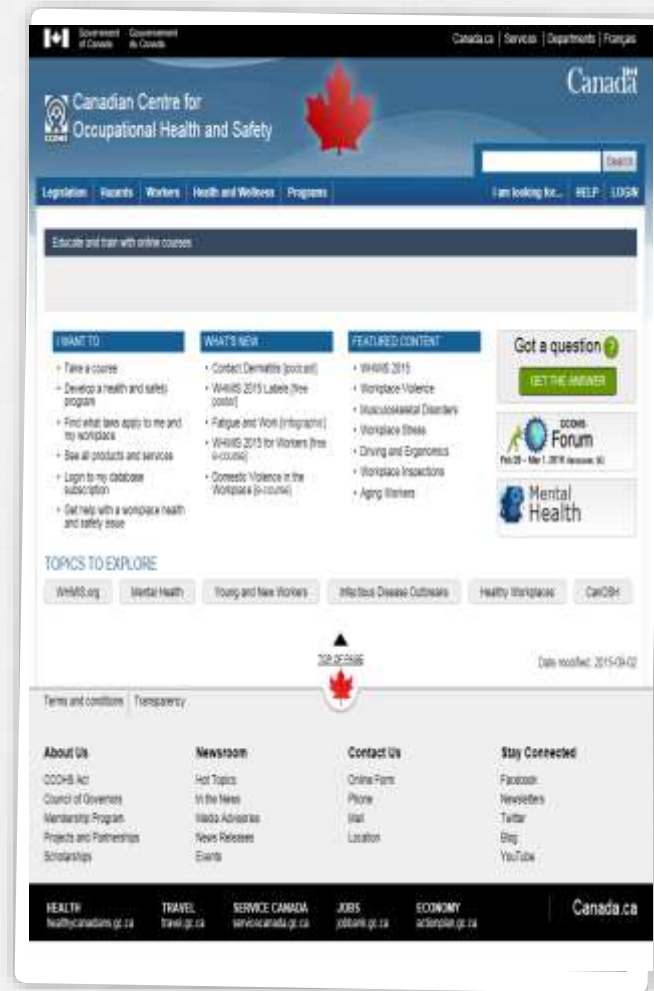


Internet banks

CCOHS

Canadian Centre for
Occupational Health and
Safety

www.ccohs.ca

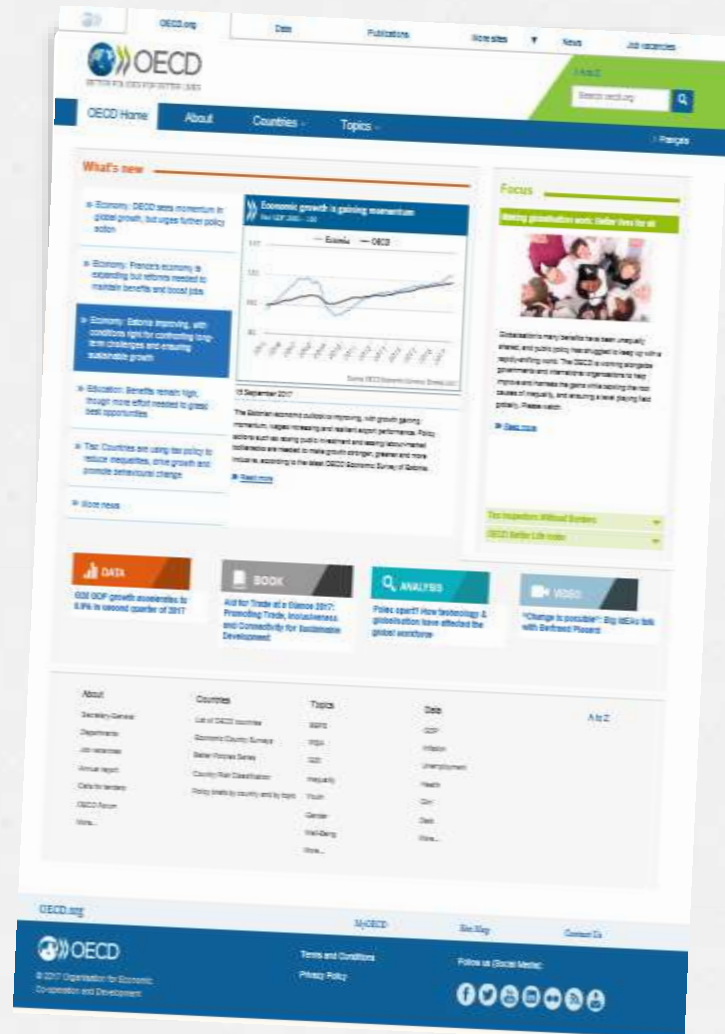


Internet banks

OECD

Organisation for Economic
Co-operation and
Development

www.oecd.org



The screenshot shows the OECD website homepage. At the top, there is a navigation bar with links for 'OECD.org', 'Data', 'Publications', 'News', and 'Jobs vacancies'. Below this is the OECD logo and a search bar. The main content area is divided into several sections. On the left, there is a 'What's new' section with bullet points: 'Economy: OECD sees momentum in global growth, but urges further policy action', 'Economy: France's economy is expanding but reforms needed to maintain benefits and boost jobs', 'Economy: Growth improving, with conditions ripe for continuing long-term challenges and ensuring sustainable growth', 'Education: Benefits remain high, though more effort needed to boost best opportunities', and 'Tax: Countries are using the policy to reduce inequalities, drive growth and promote behavioural change'. In the center, there is a 'Economic growth is gaining momentum' section with a line graph showing growth rates from 2007 to 2017. On the right, there is a 'Focus' section titled 'Meeting population needs: better lives for all' with a photo of a family. Below these sections, there are four boxes: 'DATA' (GDP growth accelerates to 6.9% in second quarter of 2017), 'BOOK' (Aid for Trade at a Glance 2017: Promoting Trade, Inclusiveness and Connectivity for Sustainable Development), 'ANALYSIS' (Pioneers apart? How technology & globalisation have affected the global economy), and 'VIDEO' ('Change is possible!' Big ideas to live with). At the bottom, there is a footer with the OECD logo, '© 2017 Organisation for Economic Co-operation and Development', 'Terms and Conditions', 'Privacy Policy', and social media links for Facebook, Twitter, YouTube, LinkedIn, and Instagram.

Bibliography

- ❖ A bibliography is a list containing details about sources of information on a specific topic. In a bibliography, writers and researchers list sources such as books, newspapers, websites, and articles from academic journals. Writers may include the author, title, publication date and publisher of the source

Toxicology bibliography banks

- Medline
- Toxnet
- Aidsline
- Embase
- Biosis,...

Toxnet databases

HSDB

Hazardous Substances Data Bank.
Peer-reviewed toxicology data for over
5,000 hazardous chemicals

TOXLINE

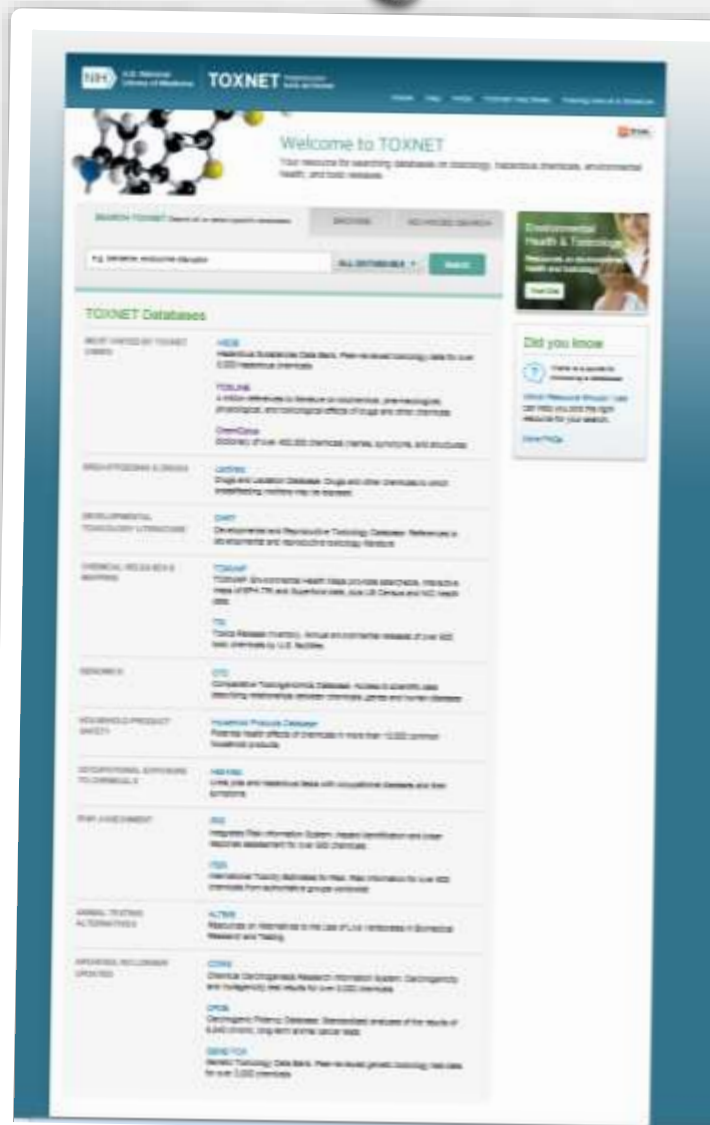
4 million references to literature on
biochemical, pharmacological,
physiological, and toxicological effects
of drugs and other chemicals

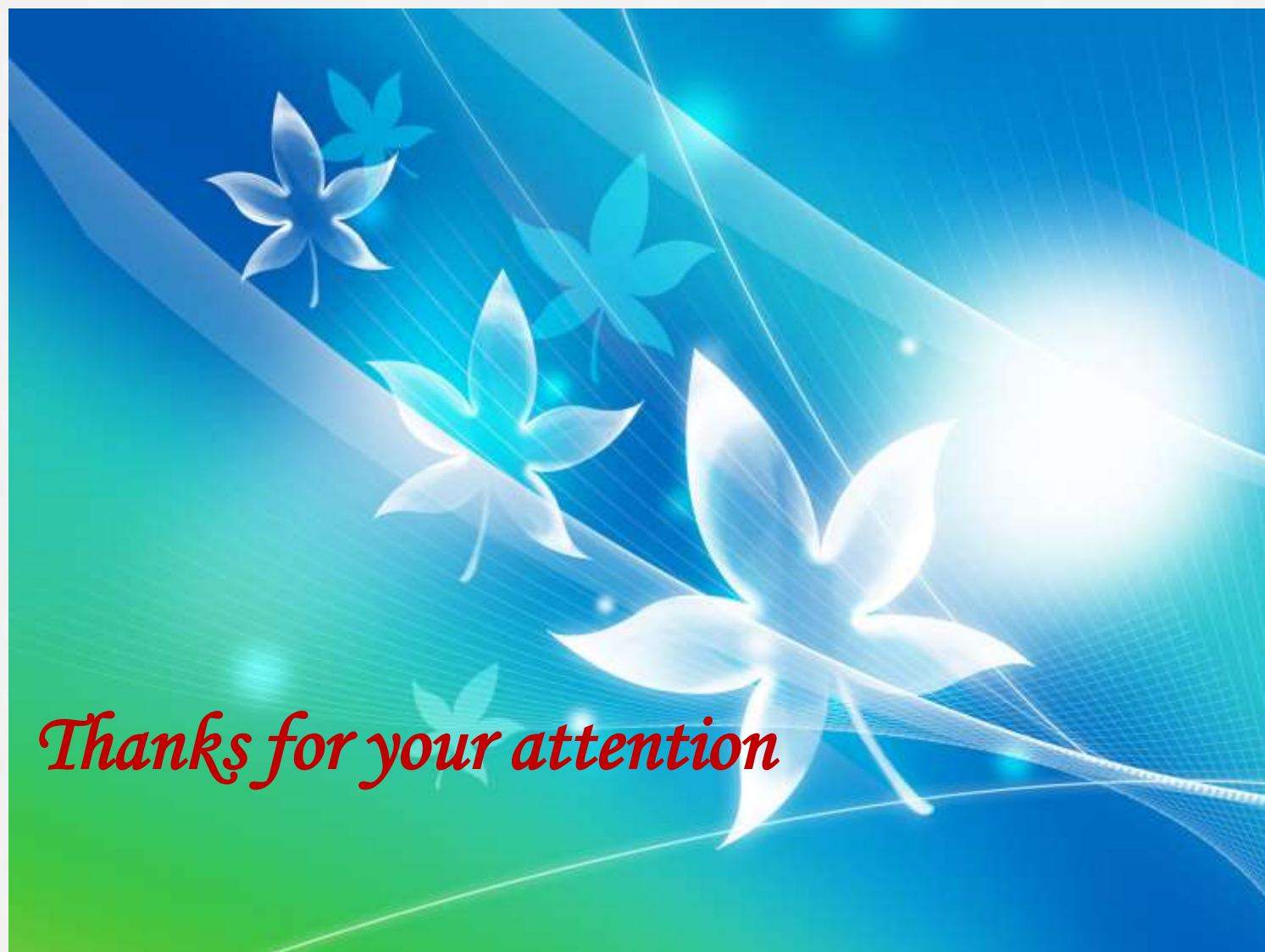
ChemIDplus

Dictionary of over 400,000 chemicals
(names, synonyms, and structures)

LactMed

Drugs and Lactation Database. Drugs
and other chemicals to which
breastfeeding mothers may be exposed





Thanks for your attention