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Unified Medical Language System® (UMLS®)

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UMLS Quick Start Guide

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What is the UMLS?

The UMLS, or Unified Medical Language System, is a set of files and software that brings together many health and biomedical vocabularies and standards to enable interoperability between computer systems.

You can use the UMLS to enhance or develop applications, such as electronic health records, classification tools, dictionaries and language translators.

More About the UMLS

- [Presentations and Publications](#)
- [UMLS Reference Manual](#)
- [UMLS Basics Tutorial](#)
- [Source Vocabulary Information](#)
- [UMLS Video Learning Resources](#)

UMLS in Use

One powerful use of the UMLS is linking health information, medical terms, drug names, and billing codes across different computer systems. Some examples of this are:

- Linking terms and codes between your doctor, your pharmacy, and your insurance company
- Patient care coordination among several departments within a hospital

The UMLS has many other uses, including search engine retrieval, data mining, public health statistics reporting, and terminology research.

More Uses of the UMLS

- [NLM Applications](#)
- [UMLS Community](#)
- [Health Information Technology](#)
- [Supporting Interoperability](#)

The Three UMLS Tools

The UMLS has three tools, which we call the Knowledge Sources:

- Metathesaurus:** Terms and codes from many vocabularies, including CPT®, ICD-10-CM, LOINC®, MeSH®, RxNorm, and SNOMED CT®
- Semantic Network:** Broad categories (semantic types) and their relationships (semantic relations)
- SPECIALIST Lexicon and Lexical Tools:** Natural language processing tools

We use the Semantic Network and Lexical Tools to produce the Metathesaurus. Metathesaurus production involves:

- Processing the terms and codes using the Lexical Tools
- Grouping synonymous terms into concepts
- Categorizing concepts by semantic types from the Semantic Network
- Incorporating relationships and attributes provided by vocabularies
- Releasing the data in a common format

Although we integrate these tools for Metathesaurus production, you can access them separately or in any combination according to your needs.

More About the UMLS Tools

- Metathesaurus
- Semantic Network
- SPECIALIST LEXICON

Vocabularies distributed by NLM:
[MeSH](#) | [RxNorm](#) | [SNOMED CT](#)

Access the UMLS

The UMLS Terminology Services (UTS) provides three ways to access the UMLS:

Web Browsers

You can search the data through UTS applications:

- Metathesaurus Browser** - Retrieve UMLS concept information, including CUIs, semantic types, and synonymous terms.

More About Accessing the UMLS

- [UMLS Terminology Services](#)
- [Current Release](#)
- [Forthcoming Release](#)
- [MetamorphoSys Tool](#)
- [API Documentation](#)

- **Semantic Network Browser** - View the names, definitions, and hierarchical structure of the Semantic Network.

[Database Load Scripts](#)

[SQL Query Diagrams](#)

Local Installation

To install the UMLS on your computer, download the files through the UTS. The MetamorphoSys tool, included with the downloaded files, allows you to customize the UMLS according to your needs. You can then load your customized data into your own database system, such as MySQL or Oracle, or you may browse your data using the MetamorphoSys RRF browser.

Web Services APIs

You can use our application programming interfaces (APIs) to query the UMLS data within your own application.

Get Started

Request a license and sign up for a UMLS Terminology Services (UTS) account.

- UMLS licenses are issued only to individuals and not to groups or organizations.
- There is no charge for licensing the UMLS from NLM. NLM is a member of the [IHSTDO](#) (owner of SNOMED CT), and there is no charge for SNOMED CT use in the United States and [other member countries](#). Some uses of the UMLS may require additional agreements with individual terminology vendors.
- The UTS account allows you to browse, download, and query the UMLS.

More About Getting Started

[How to License the UMLS](#)

[Request a License](#)

[View the License \(PDF\)](#)

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