

Savvy Searching with MeSH!

What is MeSH?

MeSH (Medical Subject Headings) is a controlled list of subject terms used to organize PubMed articles. Using MeSH helps you:

- Avoid guessing synonyms or spelling variations
- Find articles grouped under the same subject

Most PubMed articles include at least one MeSH term. The key is knowing how to find and use these terms. These terms are what PubMed *wants* you to use.

Why Use MeSH?

Keyword searches are a common way to search PubMed. They work well, but they can return too many results. For example, you may want articles about the GLP-1 drug semaglutide and its adverse reactions.

If you search for *semaglutide* “adverse reactions” PubMed treats each word as a keyword and uses AND between them. The quotes tell PubMed to search for the full phrase. This search returns 53 articles, which is a lot to review.

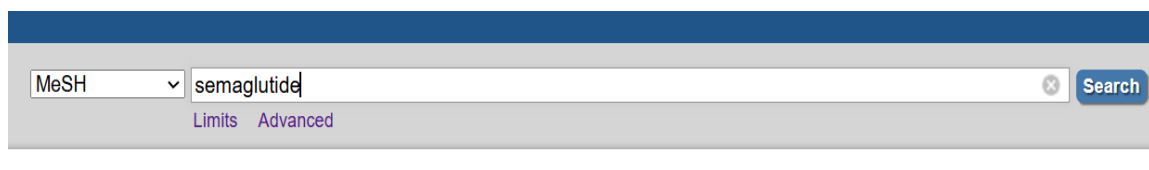
How to Search with MeSH

Follow these steps to create a more precise search:

1. Scroll to the bottom of the PubMed homepage. Select MeSH.



2. Type *semaglutide* in the search box, and then click Search.



3. Review the MeSH entry that appears.

- At the top is the term *semaglutide* which is a preferred descriptor, or official MeSH heading.
- Next there are qualifiers, or subheadings, which you can attach to MeSH terms. Sometimes using this section can make the search *too* specific.
- Entry terms are synonyms, which map to the same MeSH concept as the preferred descriptor.
- The tree structure at the bottom shows where semaglutide sits in the MeSH hierarchy. In this case, it is the most specific term in the tree.

4. Once you've selected a term, click Add to search builder

The screenshot shows the MeSH entry for **Semaglutide**. Red annotations highlight key features: "Preferred descriptor" points to the term **Semaglutide**; "Add MeSH terms here" points to the "Add to search builder" button in the PubMed Search Builder; "Synonyms" points to the list of entry terms (Ozempic, Rybelsus, Wegovy); and "Hierarchy" points to the tree structure at the bottom.

Semaglutide
A glucagon-like peptide and GLP-1 agonist used to enhance glycemic control of TYPE 2 DIABETES MELLITUS, and for OBESITY MANAGEMENT
Year introduced: 2026 (2014)
PubMed search builder options
Subheadings:
☐ administration and dosage
☐ adverse effects
☐ agonists
☐ analogs and derivatives
☐ analysis
☐ antagonists and inhibitors
☐ blood
☐ cerebrospinal fluid
☐ chemical synthesis
☐ chemistry
☐ classification
☐ economics
☐ history
☐ immunology
☐ isolation and purification
☐ metabolism
☐ pharmacokinetics
☐ pharmacology
☐ poisoning
☐ radiation effects
☐ standards
☐ supply and distribution
☐ therapeutic use
☐ toxicity
☐ urine
☐ Restrict to MeSH Major Topic.
☐ Do not include MeSH terms found below this term in the MeSH hierarchy.
Tree Number(s): D06.472.317.680.500.751
MeSH Unique ID: D000099194
Registry Number: 53AXN4NNHX
Entry terms:
• Ozempic
• Rybelsus
• Wegovy
Pharmacologic Action:
• Anti-Obesity Agents
• Glucagon-Like Peptide-1 Receptor Agonists
All MeSH Categories
Chemicals and Drugs Category
Hormones, Hormone Substitutes, and Hormone Antagonists
Hormones
Gastrointestinal Hormones
Proglucagon
Glucagon-Like Peptides
Semaglutide

PubMed Search Builder
Add to search builder AND
Search PubMed

PubMed Search Builder

"Semaglutide"[Mesh]

Add to search builder AND

Search PubMed

5. Now, go back to the MeSH search box and type *adverse reactions*. Here we see 19 terms that are similar. Click on the first entry.

Search results

Items: 19

- ☐ [Drug-Related Side Effects and Adverse Reactions](#)
1. Disorders that result from the intended use of PHARMACEUTICAL PREPARATIONS. Included in this heading are a broad variety of chemically-induced **adverse** conditions due to toxicity, DRUG INTERACTIONS, and metabolic effects of pharmaceuticals.
Year introduced: 2014
- ☐ [Adverse Drug Reaction Reporting Systems](#)
2. Systems developed for collecting reports from government agencies, manufacturers, hospitals, physicians, and other sources on **adverse drug reactions**.
Year introduced: 1992
- ☐ [Transfusion Reaction](#)
3. Complications of BLOOD TRANSFUSION. Included **adverse reactions** are common allergic and febrile **reactions**; hemolytic (delayed and acute) **reactions**; and other non-hemolytic **adverse reactions** such as infections and **adverse** immune **reactions** related to immunocompatibility.
Year introduced: 2015
- ☐ [Injection Site Reaction](#)
4. **Adverse reactions** that occur initially at the site of injection or infusion. Milder type is confined to a local allergic flare reaction. A more severe reaction is caused by extravasation of VESICANTS from the blood vessel at the site of injection and can cause damage to the surrounding tissue. In tumor flare reaction symptoms involve well beyond the injection site such as an increase in the tumor size and

6. Review the MeSH tree structure. PubMed will automatically explode the term and include all narrower terms beneath it. Here, we want to know about all drug-related side effects and adverse reactions, not just one, so let's Add to search builder.

All MeSH Categories

Diseases Category

Chemically-Induced Disorders

Drug-Related Side Effects and Adverse Reactions

[Akathisia, Drug-Induced](#)
[Anticholinergic Syndrome](#)
[Cardiotoxicity](#)
[Chemical and Drug Induced Liver Injury](#)
[Chemical and Drug Induced Liver Injury, Chronic](#)
[Chemotherapy-Related Cognitive Impairment](#)
[Drug Hypersensitivity](#)
[Asthma, Aspirin-Induced](#)
[Drug Eruptions](#) +
[Drug Fever](#)
[Dyskinesia, Drug-Induced](#)
[Injection Site Reaction](#)
[Metabolic Side Effects of Drugs and Substances](#)
[Myotoxicity](#)
[Ototoxicity](#)
[Propofol Infusion Syndrome](#)
[Serotonin Syndrome](#)
[Toxic Optic Neuropathy](#)

Exploded
terms



7. Perform the search with both terms. This produces a manageable number of articles all specific to the MeSH terms used.

The screenshot displays the PubMed Search Builder interface. At the top, a text box contains the query: `("Semaglutide"[Mesh]) AND "Drug-Related Side Effects and Adverse Reactions"[Mesh]`. Below this, there are buttons for "Add to search builder" and "AND", and a "Search PubMed" button which is circled in red. A large blue arrow points from the "Search PubMed" button to the search results section. The search results section shows the same query in a search bar, with a "Search" button. Below the search bar are links for "Advanced", "Create alert", "Create RSS", and "User Guide". Further down, there are buttons for "Save", "Email", and "Send to", along with a "Sort by: Most recent" dropdown and a "Display options" button. The results section shows "16 results" circled in red, followed by a pagination bar indicating "Page 1 of 2". The first result is titled "Cutaneous Adverse Events Associated With GLP-1 Receptor Agonists: A FAERS Database Analysis From 2018-2024." and includes the authors "Fat MN, Johnson HC, Farberg AS.", the journal "J Drugs Dermatol. 2026 Jan 1;25(1):11-16. doi: 10.36849/JDD.9448.", and the PMID "41493256".

PubMed Search Builder

`("Semaglutide"[Mesh]) AND "Drug-Related Side Effects and Adverse Reactions"[Mesh]`

Add to search builder AND

Search PubMed

`("Semaglutide"[Mesh]) AND "Drug-Related Side Effects and Adverse Reactions"` Search

Advanced Create alert Create RSS User Guide

Save Email Send to Sort by: Most recent Display options

16 results << < Page 1 of 2 > >>

☐ 1 Cutaneous Adverse Events Associated With GLP-1 Receptor Agonists: A FAERS Database Analysis From 2018-2024.

Cite Fat MN, Johnson HC, Farberg AS.
J Drugs Dermatol. 2026 Jan 1;25(1):11-16. doi: 10.36849/JDD.9448.
PMID: 41493256

Further Refine Search with Left Sidebar Filters

- Publication type
- Article type
- Gender
- Age