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National Library of Medicine
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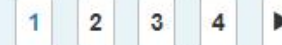
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Opioid Abuse and Addiction

Also called: Narcotics, Opiates



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Summary

Opioids, sometimes called narcotics, are a type of drug. They include strong prescription [pain relievers](#), such as oxycodone, hydrocodone, fentanyl, and tramadol. The illegal drug heroin is also an opioid. Some opioids are made from the opium plant, and others are synthetic (man-made).

A doctor may give you a prescription opioid to reduce pain after you have had a major injury or surgery. You may get them if you have severe pain from health conditions like cancer. Some doctors prescribe them for chronic pain.

Opioids can cause side effects such as drowsiness, mental fog, nausea, and constipation. They may also cause slowed breathing, which can lead to overdose deaths. If someone has signs of an overdose, call 9-1-1:

- The person's face is extremely pale and/or feels clammy to the touch

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Opioid intoxication



Opioid-based drugs include morphine, oxycodone, and synthetic (man-made) opioid narcotics, such as fentanyl. They are prescribed to treat pain after surgery or a dental procedure. Sometimes, they are used to treat severe cough or diarrhea. The illegal drug heroin is also an opioid. When abused, opioids cause a person to feel relaxed and intensely happy (euphoria). In short, the drugs are used to get high.

Opioid intoxication is a condition in which you're not only high from using the drug, but you also have body-wide symptoms that can make you ill and impaired.

Causes

Opioid intoxication may occur when a health care provider prescribes an opioid, but:

- The provider doesn't know the person is already taking another opioid at home.
- The person has a health problem, such as a liver or kidney problem, that may easily result in intoxication.
- The provider prescribes a sleep medicine (sedative) in addition to the opioid.
- The provider doesn't know that another provider already prescribed an opioid.

In people who use opioids to get high, intoxication may be caused by:

- Using too much of the drug
- Using an opioid with certain other drugs, such as sleep medicines or alcohol
- Taking the opioid in ways not normally used, such as smoked or inhaled through the nose (snorted)

Symptoms

Symptoms depend on how much of the drug is taken.

Symptoms of opioid intoxication can include:



Drugs: ASHP

Home → Drugs, Herbs and Supplements → Naloxone Injection

Naloxone Injection

pronounced as (nal ox' one)



[Why is this medication prescribed?](#)

[How should this medicine be used?](#)

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[What side effects can this medication cause?](#)

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[Brand names](#)

[Other names](#)

Why is this medication prescribed?

Naloxone injection and naloxone prefilled auto-injection device (Evzio) are used along with emergency medical treatment to reverse the life-threatening effects of a known or suspected opiate (narcotic) overdose. Naloxone injection is also used after surgery to reverse the effects of opiates given during surgery. Naloxone injection is given to newborns to decrease the effects of opiates received by the pregnant mother prior to delivery. Naloxone injection is in a class of medications called opiate antagonists. It works by blocking the effects of opiates to relieve dangerous symptoms caused by high levels of opiates in the blood.

How should this medicine be used?

Naloxone injection comes as a solution (liquid) to be injected intravenously (into a vein), intramuscularly (into a muscle), or subcutaneously (just under the skin). It also comes as a prefilled auto-injection device containing a solution to be injected intramuscularly or subcutaneously. It is usually given as needed to treat opiate overdoses.

You will probably be unable to treat yourself if you experience an opiate overdose. You should make sure that your family members, caregivers, or the people who spend time with you know how to tell if you are experiencing an overdose, how to use naloxone injection, and what to do until emergency medical help arrives. Your doctor or pharmacist will show you and your family members how to use the medication. You and anyone who may need to give the medication should read the instructions that come with the nasal injection. Ask your pharmacist for the instructions or visit the manufacturer's website to get the instructions.

[Naproxen](#)

[Naratriptan](#)

[Narcan ® see Naloxone Injection](#)

[Narcan ® see Naloxone Nasal Spray](#)

[Nardil ® see Phenezine](#)



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Herbs and Supplements: Natural Medicine Comprehensive Database

Cannabidiol



[What is it?](#)

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[Methodology](#)

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What is it?

Cannabidiol is a chemical in the Cannabis sativa plant, also known as marijuana. Over 80 chemicals, known as cannabinoids, have been identified in the Cannabis sativa plant. While delta-9-tetrahydrocannabinol (THC) is the major active ingredient, cannabidiol makes up about 40% of cannabis extracts and has been studied for many different uses. According to the U.S. Food and Drug Administration (FDA), because cannabidiol has been studied as a new drug, products containing cannabidiol are not defined as dietary supplements. But there are still products labeled as dietary supplements on the market that contain cannabidiol.

People take cannabidiol by mouth for anxiety, bipolar disorder, a muscle disorder called dystonia, seizures, multiple sclerosis, Parkinson's disease, and schizophrenia.

People inhale cannabidiol to help quit smoking.

How effective is it?

Natural Medicines Comprehensive Database rates effectiveness based on scientific evidence according to the following scale: Effective, Likely Effective, Possibly Effective, Possibly Ineffective, Likely Ineffective, Ineffective, and Insufficient Evidence to Rate.

The effectiveness ratings for **CANNABIDIOL** are as follows:

Insufficient evidence to rate effectiveness for...

- **Bipolar disorder.** Early reports suggest that taking cannabidiol daily does not improve manic episodes in people with bipolar disorders.
- **A muscle disorder called dystonia.** Early research suggests that taking cannabidiol daily for 6 weeks might improve dystonia by 20% to 50% in some people. Higher quality research is needed to confirm this.



Lab Tests

Blood Glucose Test

What is a Blood Glucose Test?

A blood [glucose](#) test measures the glucose levels in your blood. Glucose is a type of sugar. It is your body's main source of energy. A [hormone](#) called insulin helps move glucose from your bloodstream into your cells. Too much or too little glucose in the blood can be a sign of a serious medical condition. High blood glucose levels ([hyperglycemia](#)) may be a sign of [diabetes](#), a disorder that can cause [heart disease](#), [blindness](#), [kidney failure](#) and other [complications](#). Low blood glucose levels ([hypoglycemia](#)) can also lead to major health problems, including brain damage, if not treated.

Other names: blood sugar, self-monitoring of blood glucose (SMBG), fasting plasma glucose (FPG), fasting blood sugar (FBS), fasting blood glucose (FBG), glucose challenge test, oral glucose tolerance test (OGTT)

What is it used for?

A blood glucose test is used to find out if your blood sugar levels are in the healthy range. It is often used to help diagnose and monitor diabetes.

Why do I need a blood glucose test?

Your health care provider may order a blood glucose test if you have symptoms of high glucose levels ([hyperglycemia](#)) or low glucose levels ([hypoglycemia](#)).

Symptoms of high blood glucose levels include:

- Increased thirst
- More frequent urination
- Blurred vision
- Fatigue
- Wounds that are slow to heal



Related MedlinePlus Health Topics

- [Diabetes in Children and Teens](#)
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Summary

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A doctor may give you a prescription opioid to reduce pain after you have had a major injury or surgery. You may get them if you have severe pain from health conditions like cancer. Some doctors prescribe them for chronic pain.

Opioids can cause side effects such as drowsiness, mental fog, nausea, and constipation. They may also cause slowed breathing, which can lead to overdose deaths. If someone has signs of an overdose, call 9-1-1:

- The person's face is extremely pale and/or feels clammy to the touch
- Their body goes limp
- Their fingernails or lips have a purple or blue color
- They start vomiting or making gurgling noises
- They cannot be awakened or are unable to speak
- Their breathing or heartbeat slows or stops

Other risks of using prescription opioids include dependence and addiction. Dependence means feeling withdrawal symptoms when not taking the drug. Addiction is a chronic brain disease that causes a person to compulsively seek out drugs, even though they cause harm. The risks of dependence and addiction are higher if you abuse the medicines. Abuse can include taking too much medicine, taking someone else's medicine, taking it in a different way than you are supposed to, or taking the medicine to get high.

Opioid abuse, addiction, and overdoses are serious public health problems in the United States. Another problem is that more women are abusing opioids during pregnancy. This can lead to babies being addicted and going through withdrawal, known as neonatal abstinence syndrome (NAS). Opioid abuse may sometimes also lead to heroin use, because some people switch from prescription opioids to heroin.

The main treatment for prescription opioid addiction is medication-assisted treatment (MAT). It includes medicines, counseling, and support from family and friends. MAT can help you stop using the drug, get through withdrawal, and cope with cravings. There is also a medicine called naloxone which can reverse the effects of an opioid overdose and prevent death, if it is given in time.

To prevent problems with prescription opioids, be sure to follow your doctor's instructions when taking them. Do not share your medicines with anyone else. Contact your doctor if you have any concerns about taking the medicines.

NIH: National Institute on Drug Abuse

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- [Help, Resources and Information: National Opioids Crisis](#) (Department of Health and Human Services)
- [Narcotics](#) (Drug Enforcement Administration) - PDF
- [Opioid Addiction](#) (American Academy of Family Physicians)
Also in Spanish
- [Opioid Overdose](#) (Substance Abuse and Mental Health Services Administration)
- [Opioid Overdose Crisis](#) (National Institute on Drug Abuse)
Also in Spanish
- [Understanding the Opioid Epidemic](#) (Centers for Disease Control and Prevention)

Latest News

- [New! An Ambitious Research Plan to Help Solve the Opioid Crisis: HEAL Initiative](#) (09/12/2018, National Institute on Drug Abuse)
- [FDA Approves First Medication to Reduce Opioid Withdrawal Symptoms](#) (05/16/2018, National Institute on Drug Abuse)
- [Study Upends Conventional View of Opioid Mechanism of Action](#) (05/10/2018, National Institute on Drug Abuse)

Diagnosis and Tests

- [Drug Testing](#) (National Library of Medicine)
Also in Spanish
- [Signs of Painkiller Abuse and Addiction](#) *Easy-to-Read* (National Institute on Drug Abuse)
Also in Spanish

Prevention and Risk Factors

- [Opioid Overdose Prevention: Safety Advice for Patients & Family Members](#) (Substance Abuse and Mental Health Services Administration) - PDF
- [Prevent Opioid Misuse](#) (Centers for Disease Control and Prevention)
- [What to Ask Your Doctor Before Taking Opioids](#) (Food and Drug Administration)
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Morphine overdose

Opiate and opioid withdrawal

Opioid intoxication

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Surgeon General Outlines Opioid Plan
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Sometimes it's the famous, like Nick Jonas, Randy Jackson or Mary Tyler Moore. But mostly, it's regular people who have turned to NIH for care and want to share their stories. Often, too, NIH scientists will write about their efforts to cure disease.

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With the best of good health to you and your family

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Esperamos que NIH MedlinePlus Salud se convierta en una fuente favorita de información confiable sobre la salud, siendo que la lea en la oficina de su médico, sala de salud, clínica o sala de espera del hospital. Mejor aún, esperamos que se suscriba gratuitamente.

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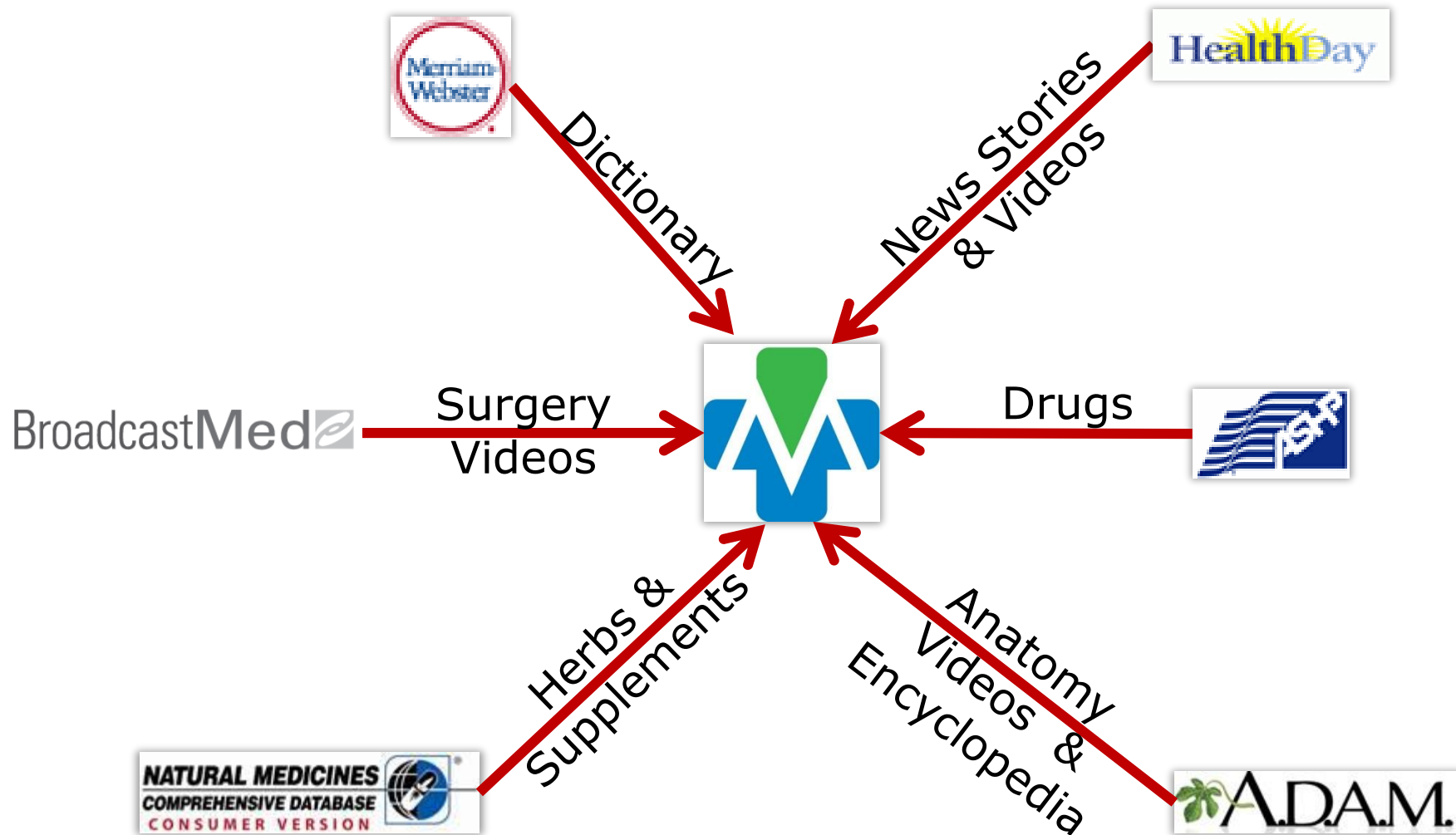
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Patricia Flatley Brennan, RN, PhD
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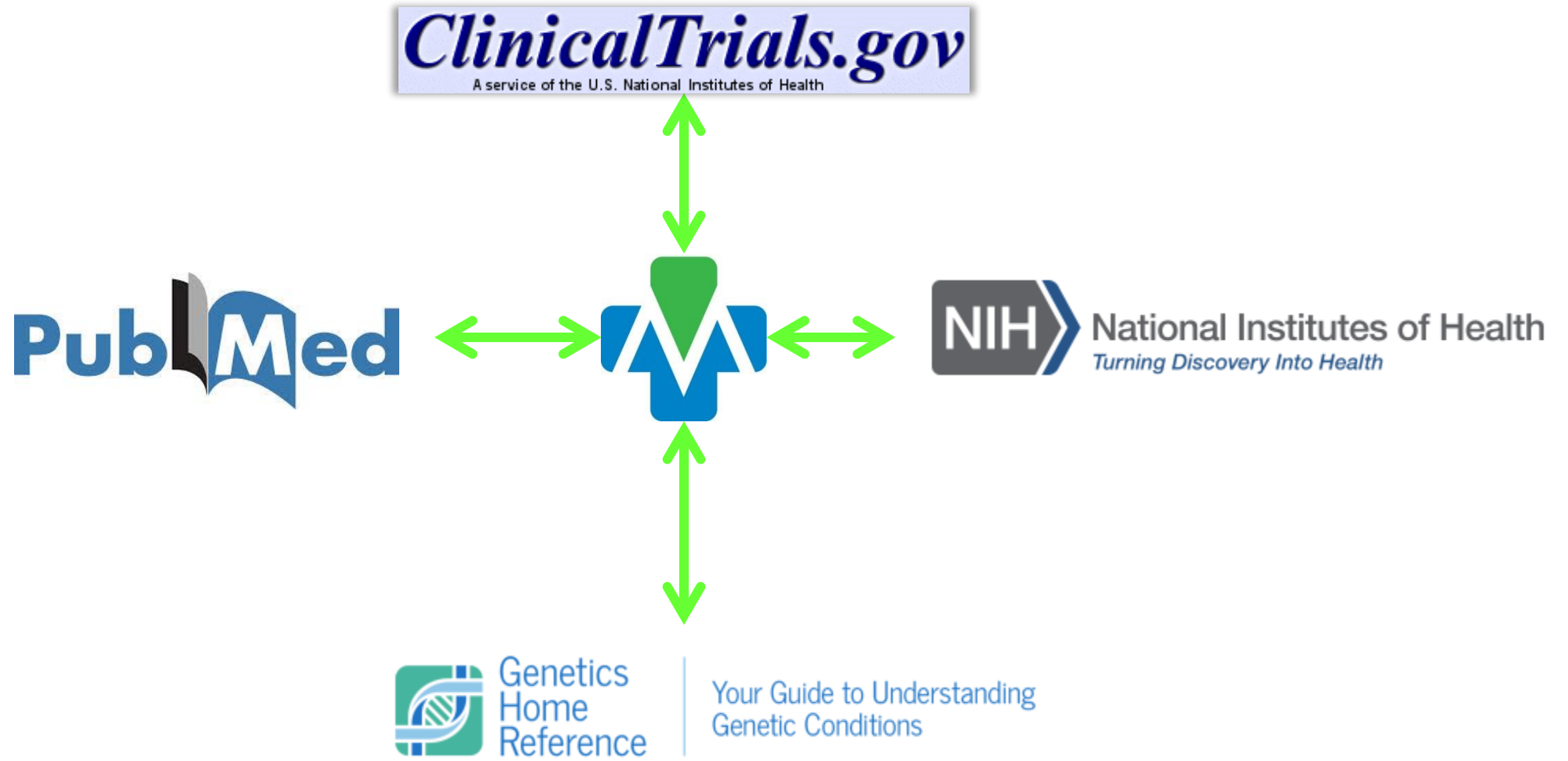


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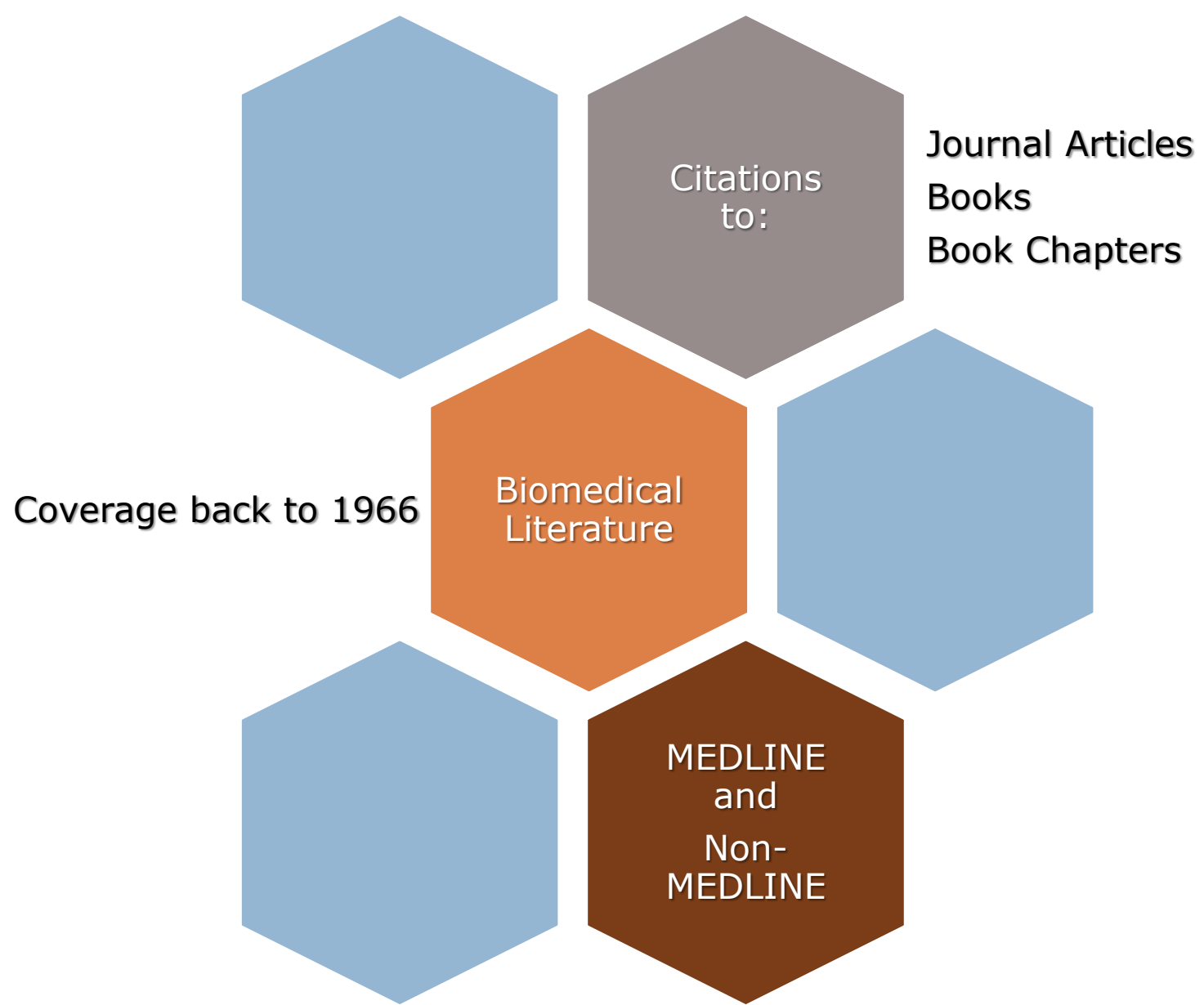
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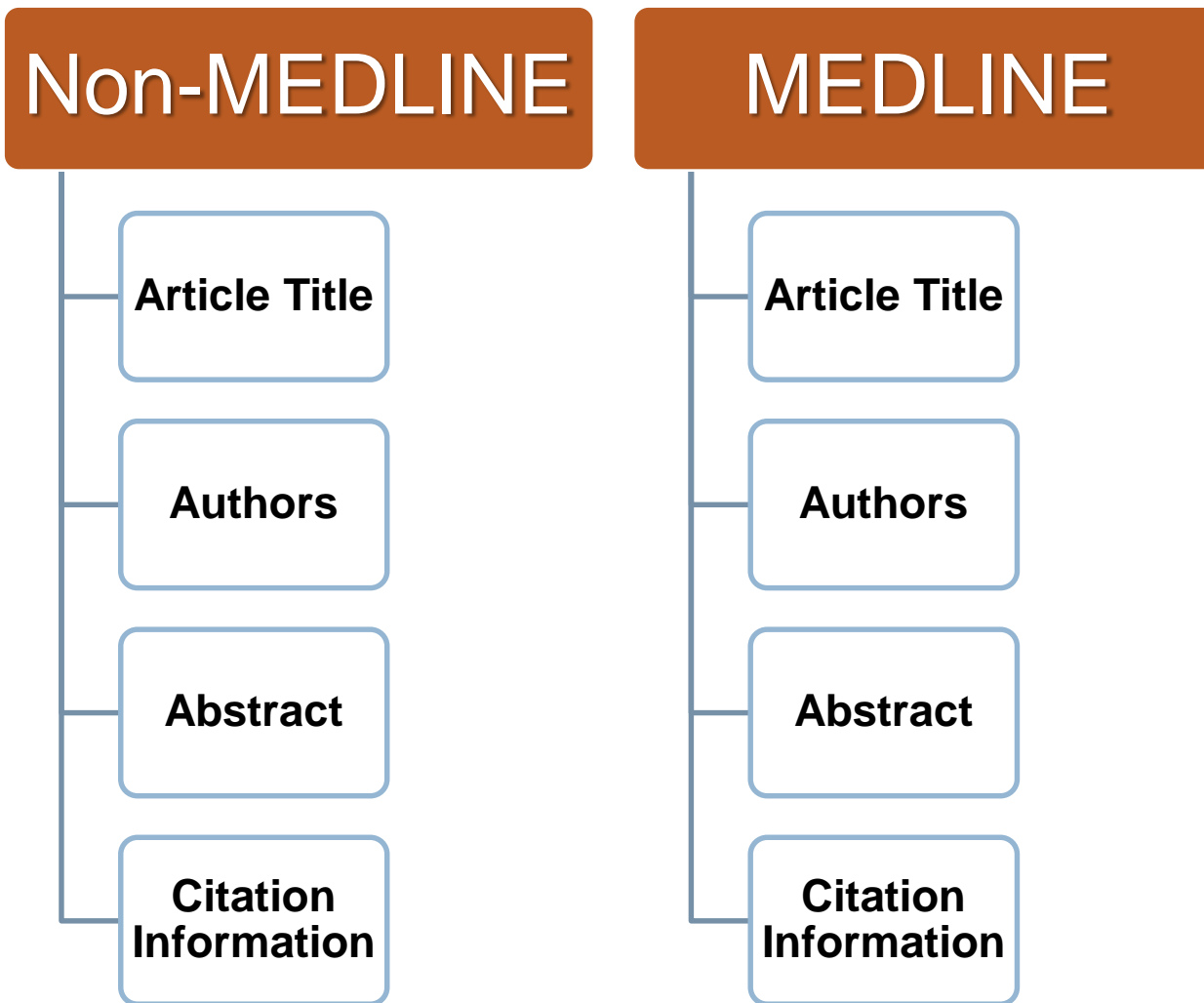


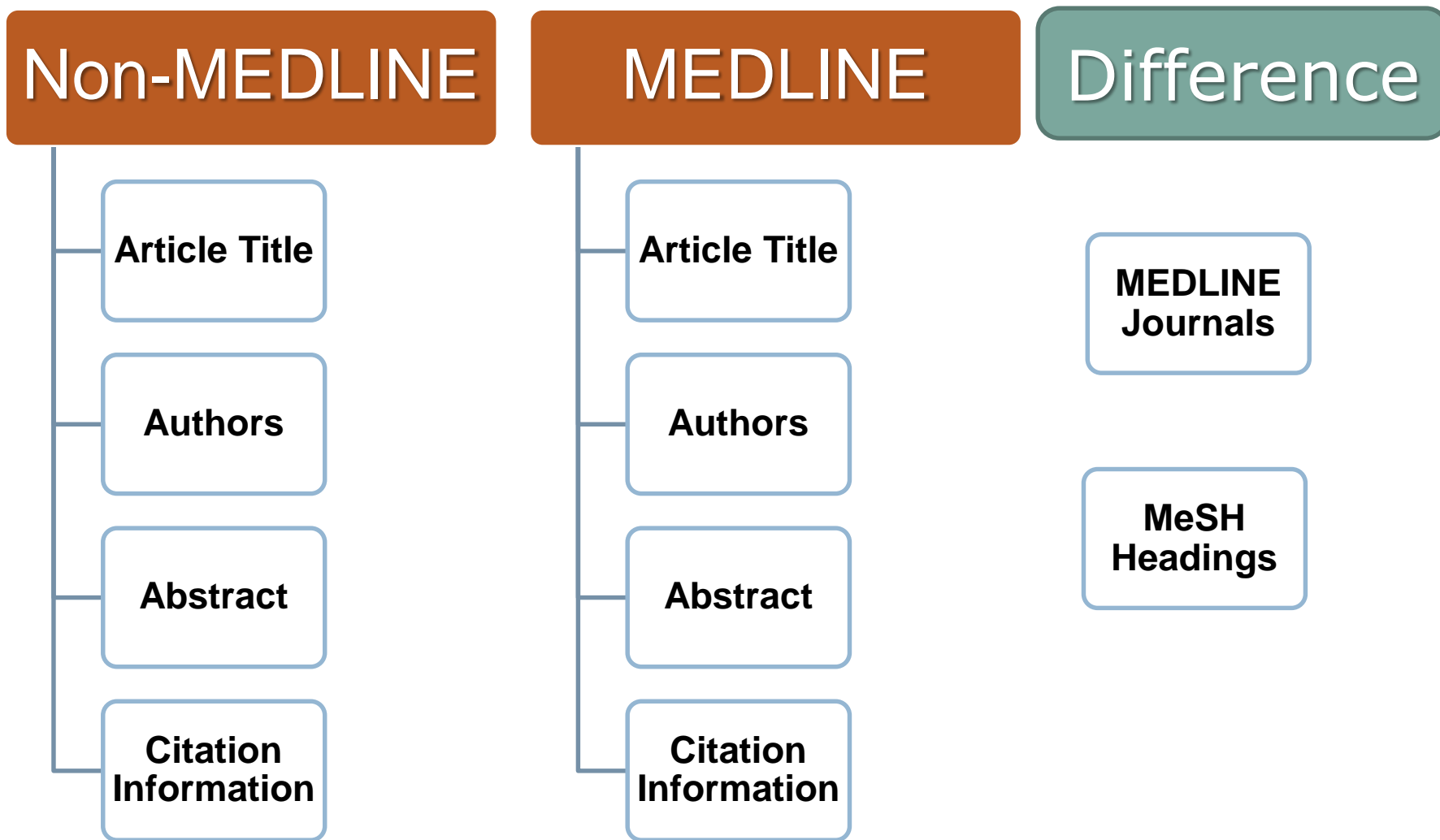
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Medical Subject Headings: MeSH

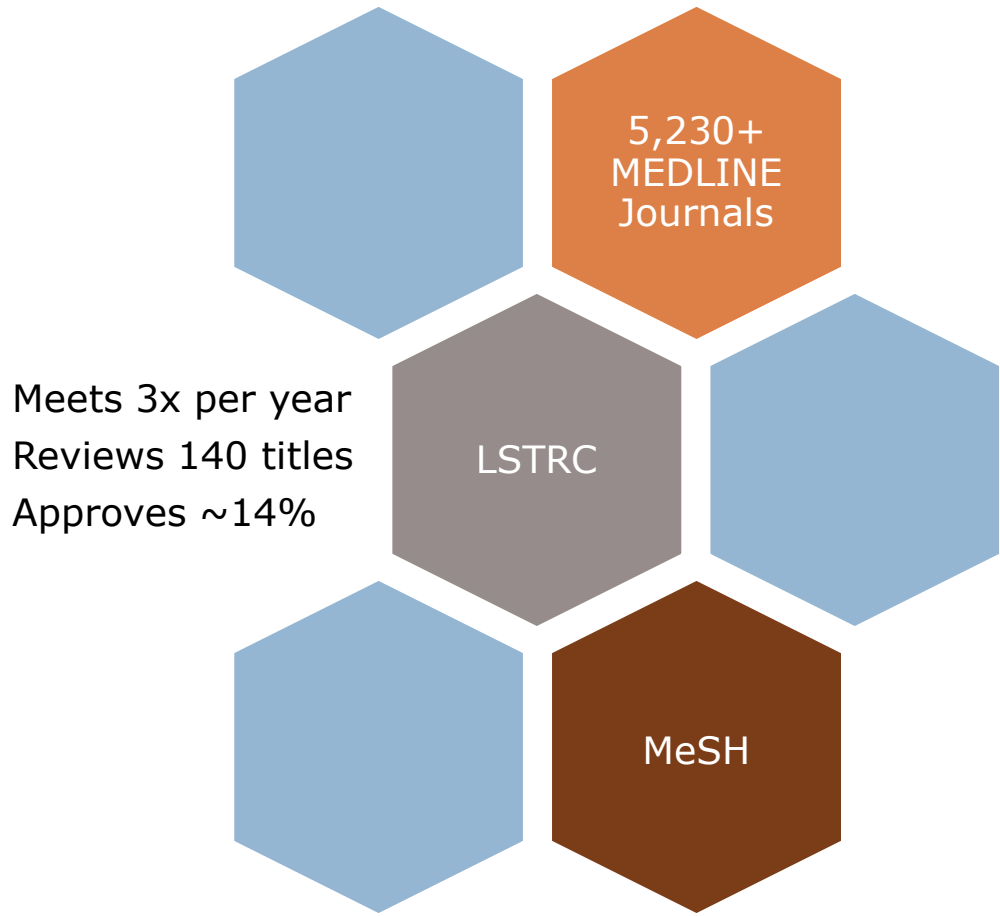
PubMed's controlled vocabulary

28,000+ terms

Entry Terms = synonyms

Hierarchy

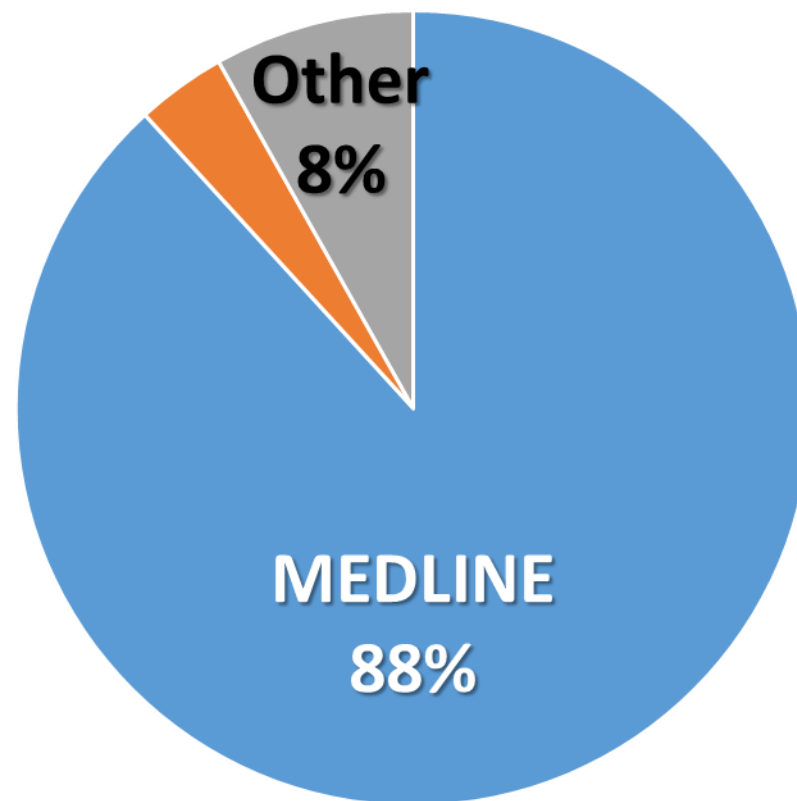




What's in PubMed?

Future MEDLINE

4%



Other
8%

MEDLINE
88%

Other includes:

- records for online books & chapters
- out of scope articles

Let's take a look at PubMed.gov!



U.S. National Library of Medicine



PubMed Labs launched in October 2017

NIH U.S. National Library of Medicine NCBI National Center for Biotechnology Information kathi My NCBI Log out

This is PubMed Labs, a test site. For PubMed go to pubmed.gov.

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Search

What is PubMed Labs?

PubMed Labs is a test site where we are *experimenting* with new features and tools that eventually may be incorporated in PubMed, in their current or a revised form based on the input we receive. Please try the site and [let us know](#) what you think.

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What is PubMed Labs?

PubMed Labs is a test site where we are



U.S. National Library of Medicine



multiple sclerosis

multiple myeloma

progressive multiple sclerosis

multiple system atrophy

multiple sclerosis treatment

What is PubMed Labs?

PubMed Labs is a test site where we are *experimenting* with new features and tools that eventually may be incorporated in PubMed, in their current or a revised form based on the input we receive. Please try the site and [let us know](#) what you think.





progressive multiple sclerosis



Search

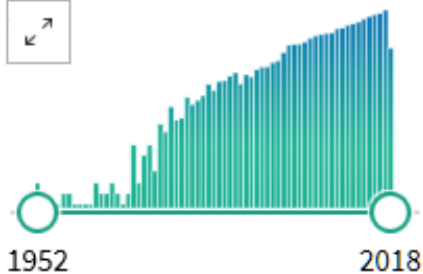
RESULTS BY YEAR

8,185 results

Sort by

Best match

Most recent



TEXT AVAILABILITY

- Abstract
- Free full text
- Full text

ARTICLE TYPE

- Review
- Clinical trial

Relapsing and progressive forms of multiple sclerosis: insights from pathology.Dutta R and Trapp BD. *Curr Opin Neurol* 2014 - *Review*.

differences during relapsing and **progressive** phases of **multiple sclerosis**. RECENT FINDINGS: The clinical course of **multiple sclerosis**..., while effective during the relapsing phase, have little benefit for **progressive multiple sclerosis** patients. Development of...

Treatment of progressive multiple sclerosis: what works, what does not, and what is needed.Feinstein A, et al. *Lancet Neurol* 2015 - *Review*.

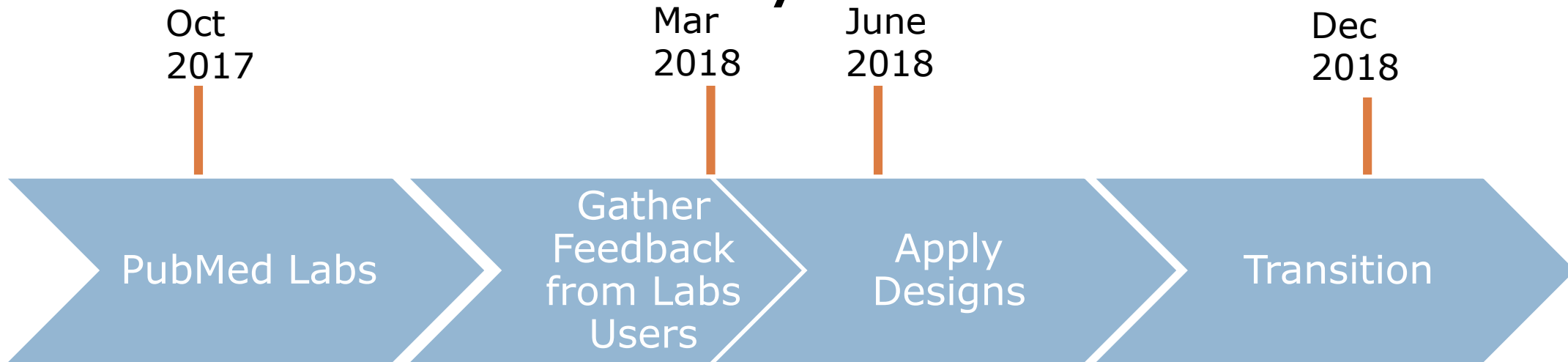
Disease-modifying drugs have mostly failed as treatments for **progressive multiple sclerosis**. Management of the disease... symptoms in **progressive multiple sclerosis**, which translates to few proven therapeutic options in the clinic. A new strategy that...

Clinical trials in progressive multiple sclerosis: lessons learned and future perspectives.Ontaneda D, et al. *Lancet Neurol* 2015 - *Review*.

Progressive multiple sclerosis is characterised clinically by the gradual accrual of disability of relapses and... effective disease-modifying treatment for **progressive multiple sclerosis**

Feedback

PubMed 2.0 release roadmap and beyond



ClinicalTrials.gov

What do we mean by “Clinical Trial?”

- **Clinical trials** are research studies where people **volunteer to test** new treatments.
- People are assigned to one or more **interventions** (which may include a placebo) so that researchers can **evaluate the effects** on the volunteers.

ClinicalTrials.gov tracks clinical trials and observational studies around the world.



Are your patrons interested in clinical trials?



Uses of ClinicalTrials.gov

The screenshot shows the ClinicalTrials.gov website. At the top left is the NIH logo and the text "U.S. National Library of Medicine". The "ClinicalTrials.gov" logo is prominently displayed. A navigation bar includes links for "Find Studies", "About Studies", "Submit Studies", "Resources", and "About Site". A blue banner below the navigation bar contains the text: "ClinicalTrials.gov is a database of privately and publicly funded clinical studies conducted around the world." Below this banner, on the left, is a section titled "Explore 269,061 research studies in all 50 states and in 203 countries." followed by a disclaimer: "ClinicalTrials.gov is a resource provided by the U.S. National Library of Medicine. IMPORTANT: Listing a study does not mean it has been evaluated by the U.S. Federal Government. Read our disclaimer for details. Before participating in a study, talk to your health care provider and learn about the risks and potential benefits." On the right is a search box titled "Find a study (all fields optional)". It includes a "Recruitment status" section with radio buttons for "Recruiting and not yet recruiting studies" and "All studies" (which is selected). Below are input fields for "Condition or disease" (with a hint: "For example: breast cancer"), "Other terms" (with a hint: "For example: NCT number, drug name, investigator name"), and "Country". Each input field has a clear button (X). At the bottom of the search box are "Search" and "Advanced Search" buttons.

- Identify trials to participate
- Track progress of a trial and find summary results when available

ClinicalTrials.gov Demo 1: Finding a study

Find a study (all fields optional)

Status ⓘ

Recruiting and not yet recruiting studies

All studies

Condition or disease ⓘ (For example: breast cancer)

Opiate Dependence X

Other terms ⓘ (For example: NCT number, drug name, investigator name)

Country ⓘ

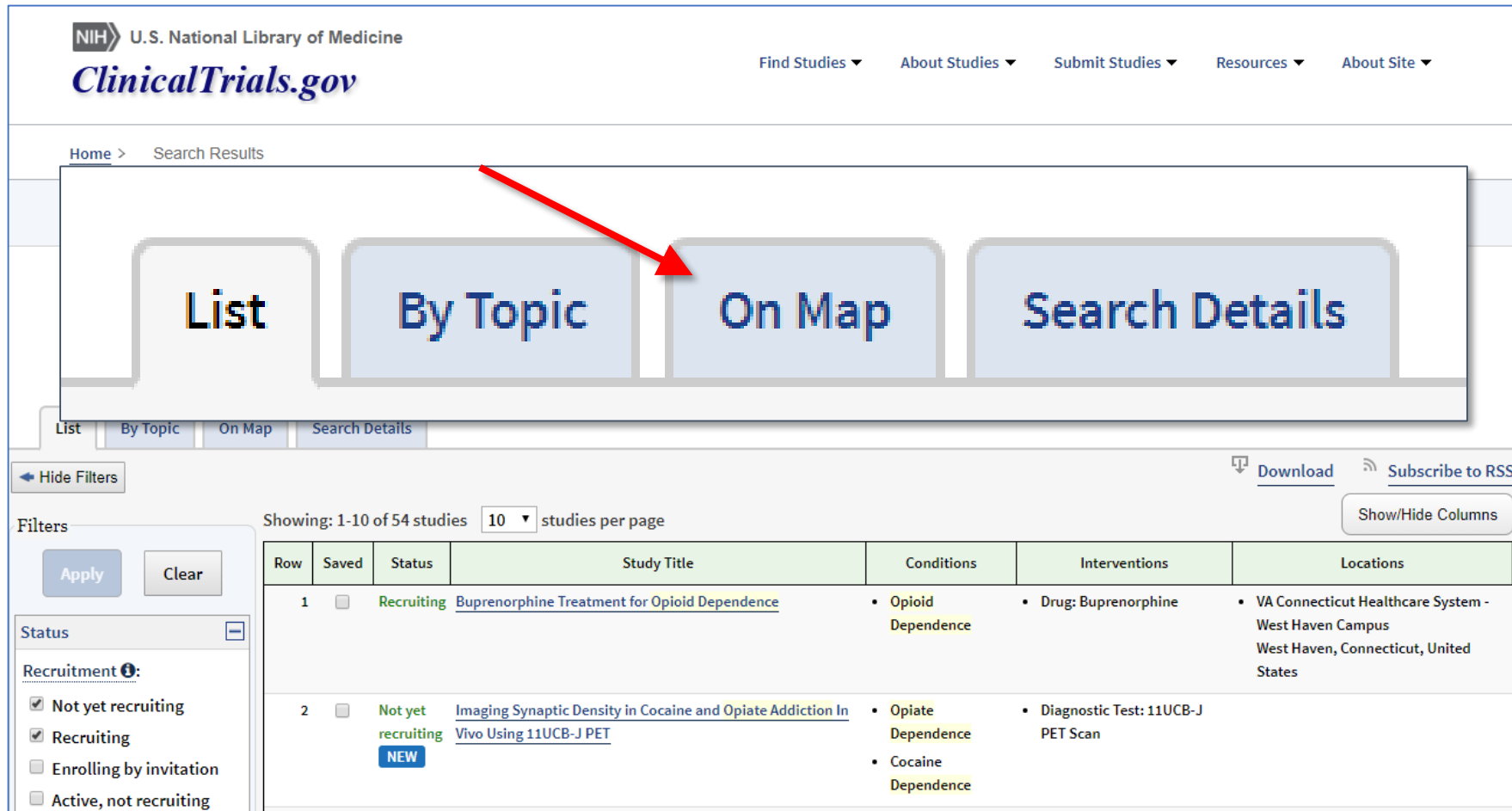
X

[Advanced Search](#)



- Use the Find a study form on clinicaltrials.gov to find all **Recruiting** trials for **opiate dependence**.

ClinicalTrials.gov Demo 1: Finding a study(cont.)



The screenshot shows the ClinicalTrials.gov search results page. At the top, the NIH logo and 'U.S. National Library of Medicine' are visible, along with the 'ClinicalTrials.gov' logo. Navigation links include 'Find Studies', 'About Studies', 'Submit Studies', 'Resources', and 'About Site'. The breadcrumb trail shows 'Home > Search Results'. A red arrow points to the 'On Map' button in a row of filter buttons: 'List', 'By Topic', 'On Map', and 'Search Details'. Below the filters, there are options for 'Download' and 'Subscribe to RSS', and a 'Show/Hide Columns' button. The main content area shows a table of search results with columns for Row, Saved, Status, Study Title, Conditions, Interventions, and Locations. The first study is 'Buprenorphine Treatment for Opioid Dependence' and the second is 'Imaging Synaptic Density in Cocaine and Opiate Addiction In Vivo Using 11UCB-J PET'.

NIH U.S. National Library of Medicine
ClinicalTrials.gov

Find Studies ▾ About Studies ▾ Submit Studies ▾ Resources ▾ About Site ▾

Home > Search Results

List By Topic **On Map** Search Details

Hide Filters Download Subscribe to RSS Show/Hide Columns

Showing: 1-10 of 54 studies 10 studies per page

Row	Saved	Status	Study Title	Conditions	Interventions	Locations
1	<input type="checkbox"/>	Recruiting	Buprenorphine Treatment for Opioid Dependence	• Opioid Dependence	• Drug: Buprenorphine	• VA Connecticut Healthcare System - West Haven Campus West Haven, Connecticut, United States
2	<input type="checkbox"/>	Not yet recruiting NEW	Imaging Synaptic Density in Cocaine and Opiate Addiction In Vivo Using 11UCB-J PET	• Opiate Dependence • Cocaine Dependence	• Diagnostic Test: 11UCB-J PET Scan	

Filters

Apply Clear

Status

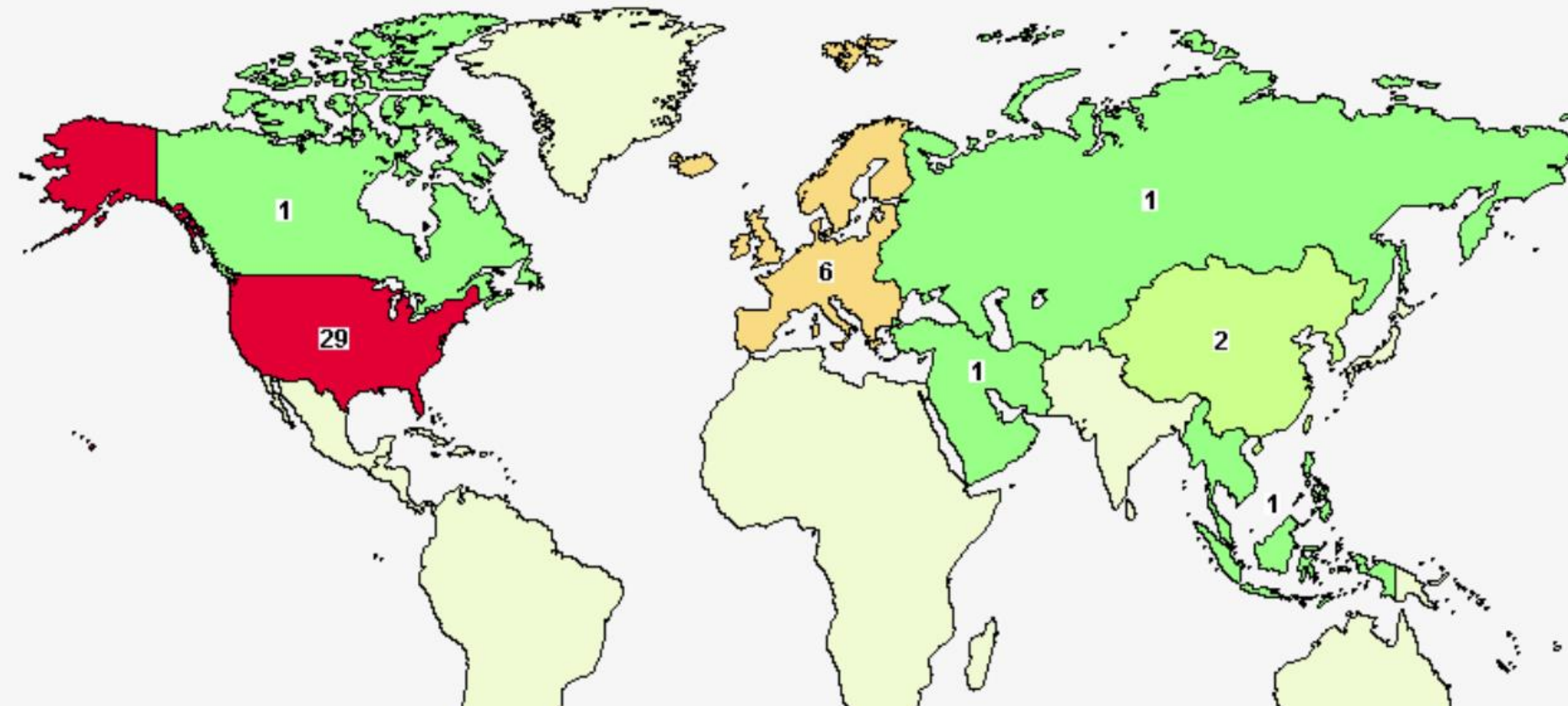
Recruitment ⓘ

- Not yet recruiting
- Recruiting
- Enrolling by invitation
- Active, not recruiting

[List](#)[By Topic](#)[On Map](#)[Search Details](#)

[A similar map is available for all studies in ClinicalTrials.gov](#)

Click on the map below to show a more detailed map (when available) or search for studies (when map not available).



Many filter options:

- Study status
- Eligibility criteria
- Study type
- Study results
- Study phase and more...

Filters

Apply Clear

Status

Recruitment ⓘ:

- Not yet recruiting
- Recruiting
- Enrolling by invitation
- Active, not recruiting
- Suspended
- Terminated
- Completed
- Withdrawn
- Unknown status[†]

Expanded Access ⓘ:

Eligibility Criteria

Age ⓘ:

years OR

Age Group ⓘ:

- Child (birth–17)
- Adult (18–64)
- Older Adult (65+)

Sex ⓘ:

- All
- Female
- Male

Accepts Healthy Volunteers ⓘ

Study Type

Study Results

Show/Hide Columns

Row	Saved	Status	Study Title	Conditions	Interventions	Locations
1	<input type="checkbox"/>	Recruiting	Comparing Interventions for Opioid Dependent Patients Presenting in Medical Emergency Departments	<ul style="list-style-type: none">Opioid Dependence	<ul style="list-style-type: none">Behavioral: Strengths-based Case Management (SBCM)Behavioral: Screening, Assessment, and Referral (SAR)	<ul style="list-style-type: none">Bellevue Hospital Center New York, New York, United States
2	<input type="checkbox"/>	Recruiting	Facilitating Rapid Naltrexone Initiation	<ul style="list-style-type: none">Opioid Dependence	<ul style="list-style-type: none">Drug: CI-581-aDrug: CI-581-b	<ul style="list-style-type: none">New York State Psychiatric Institute New York, New York, United States
3	<input type="checkbox"/>	Recruiting	The Life STORRIED Study	<ul style="list-style-type: none">Opioid DependenceCommunicationRisk BehaviorNarrative Medicine	<ul style="list-style-type: none">Other: Narrative Enhanced Risk Tool (NERT)Other: probabilistic risk communication tool (PRT)	<ul style="list-style-type: none">Mayo Clinic Rochester, Minnesota, United StatesNorthwell Health Manhasset, New York, United StatesUniversity of Pennsylvania Philadelphia, Pennsylvania, United States
4	<input type="checkbox"/>	Recruiting	A Strategy to Improve Success of Treatment Discontinuation in Buprenorphine Responders	<ul style="list-style-type: none">Opioid-use Disorder	<ul style="list-style-type: none">Drug: VivitrolDrug: Buprenorphine	<ul style="list-style-type: none">Substance Treatment and Research Service(STARS) Columbia University New York, New York, United States
5	<input type="checkbox"/>	Recruiting	Buprenorphine as Adjunct to Outpatient Induction Onto Vivitrol	<ul style="list-style-type: none">Opioid-use Disorder	<ul style="list-style-type: none">Drug: BuprenorphineDrug: NaltrexoneDrug: Vivitrol	<ul style="list-style-type: none">Substance Treatment and Research Service (STARS), Columbia University New York, New York, United States
6	<input type="checkbox"/>	Recruiting	Extended-Release Naltrexone Opioid Treatment at Jail Re-Entry	<ul style="list-style-type: none">Heroin DependenceOpioid-Related Disorders	<ul style="list-style-type: none">Drug: Extended-Release Naltrexone	<ul style="list-style-type: none">Bellevue Hospital Center New York, New York, United StatesNYC Department of Corrections: Rikers Island Jail Facilities New York, New York, United States

Trial record 1 of 54 for: Recruiting, Not yet recruiting Studies | Opiate Dependence

[Previous Study](#) | [Return to List](#) | [Next Study](#) ▶

Buprenorphine Treatment for Opioid Dependence

The safety and scientific validity of this study is the responsibility of the sponsor and investigators. Listing a study does not mean it has been endorsed by the U.S. Federal Government. [Know the risks and potential benefits](#) of studies and talk to your health care provider before participating. Read [disclaimer](#) for details.

Sponsor:

Yale University

Collaborator:

United States Department of Defense

Information provided by (Responsible Party):

Yale University

An individual ClinicalTrials.gov study record includes:

- Description
- Study design
- Arms and interventions
- Outcome measures
- Inclusion and exclusion criteria
- Contact information

Finding Good Evidence for Medical Treatments is Complicated

- 1. Not all trials are published**
- 2. Publications do not always report on all outcome measures**
- 3. Researchers make changes after starting the study that might affect the interpretation of the findings**

Uses of ClinicalTrials.gov (continued)

The screenshot shows the ClinicalTrials.gov website. At the top left is the NIH logo and the text "U.S. National Library of Medicine". The "ClinicalTrials.gov" logo is prominently displayed. A navigation bar contains links for "Find Studies", "About Studies", "Submit Studies", "Resources", and "About Site". A blue banner below the navigation bar states: "ClinicalTrials.gov is a database of privately and publicly funded clinical studies conducted around the world." Below this banner, on the left, is a section titled "Explore 269,061 research studies in all 50 states and in 203 countries." followed by a disclaimer: "ClinicalTrials.gov is a resource provided by the U.S. National Library of Medicine. IMPORTANT: Listing a study does not mean it has been evaluated by the U.S. Federal Government. Read our disclaimer for details. Before participating in a study, talk to your health care provider and learn about the risks and potential benefits." On the right is a search box titled "Find a study (all fields optional)". It contains several filters: "Recruitment status" with radio buttons for "Recruiting and not yet recruiting studies" and "All studies" (selected); "Condition or disease" with a text input field and a clear button (X); "Other terms" with a text input field and a clear button (X); and "Country" with a dropdown menu and a clear button (X). At the bottom of the search box are "Search" and "Advanced Search" buttons.

- Find summary results of completed trials



PubMed.gov

ClinicalTrials.gov

ClinicalTrials.gov Demo 2: Finding study results

Find a study (all fields optional)

Status ⓘ

Recruiting and not yet recruiting studies

All studies

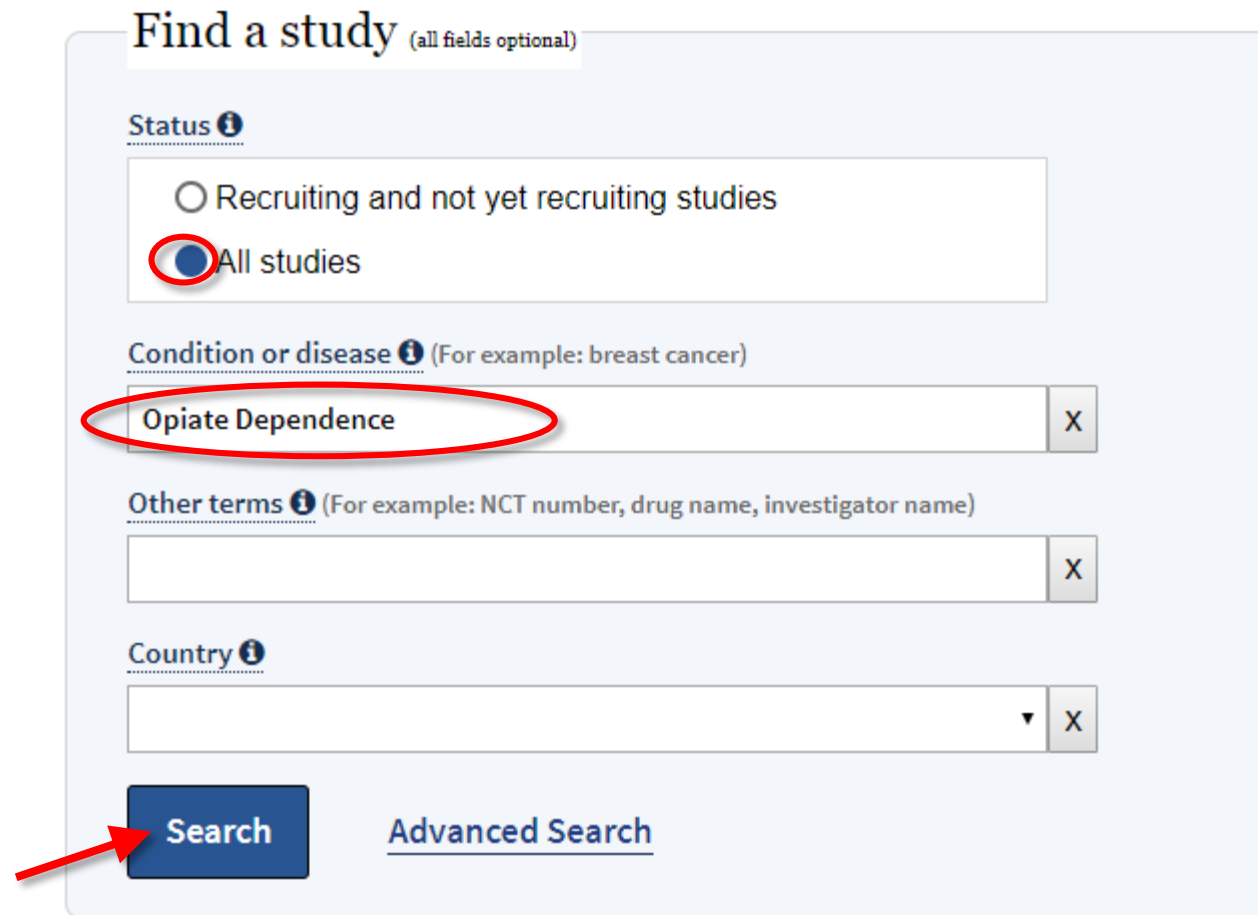
Condition or disease ⓘ (For example: breast cancer)

Opiate Dependence X

Other terms ⓘ (For example: NCT number, drug name, investigator name)

Country ⓘ

Search [Advanced Search](#)



ClinicalTrials.gov Demo 2: Finding study results

Filters

Apply Clear

Recruitment Status +

Eligibility Criteria +

Study Type +

Study Results -

All

With Results

Without Results

Study Phase +

Funder Type +

Apply Clear

Showing: 1-10 of 535 studies 10 studies per page

Study ID	Saved	Status	Study Title
1	<input type="checkbox"/>	Active, not recruiting NEW	Salivary Cytokine Profile as a Biomarker for Dental Pain
2	<input type="checkbox"/>	Recruiting NEW	Handgrip Strengthening Exercise in Treatment of the Patients With Primary Subacromial Impingement Syndrome
3	<input type="checkbox"/>	Recruiting NEW	Evaluation of Aromatherapy on Academic Stress
4	<input type="checkbox"/>	Not yet recruiting NEW	The Effect of Daily Consumption of Extra Virgin Olive Oil on Blood Glucose Amount in Diabetic Patients

ClinicalTrials.gov Demo 2: Finding study results

The screenshot shows the ClinicalTrials.gov search results page. At the top, there are navigation tabs: 'List', 'By Topic', 'On Map', and 'Search Details'. Below these is a 'Hide Filters' button. On the left, there is a 'Filters' section with 'Apply' and 'Clear' buttons. Under 'Recruitment Status', the following options are listed: 'Not yet recruiting', 'Recruiting', 'Enrolling by invitation', 'Active, not recruiting', and 'Suspended'. The main table shows a list of studies. A red arrow points from the 'Completed' status in the third row to a callout box. The callout box contains the text 'Completed' in red and 'Has Results' in blue with a blue underline. The third row of the table shows the study title: 'Efficacy and Safety of Ryanodex® (EGL-4104) as Adjuvant Treatment in Subjects With Exertional Heat Stroke (EHS)'. Other rows show partial titles like '...plementation' and '...Malodor'.

Row	Save	Study Title
1	<input type="checkbox"/>	...
2	<input type="checkbox"/>	...plementation
3	<input type="checkbox"/>	Completed Efficacy and Safety of Ryanodex® (EGL-4104) as Adjuvant Treatment in Subjects With Exertional Heat Stroke (EHS)

ClinicalTrials.gov Demo 2: Finding study results

Study Details Tabular View **Study Results** Disclaimer ? How to Read a Study Record


Study Type:	Interventional
Study Design:	Allocation: Randomized; Intervention Model: Parallel Assignment; Masking: Double (Participant, Investigator); Primary
Condition:	Vitamin D Deficiency
Interventions:	Drug: Application of topical vitamin d3 (Top-D) Other: Application of Aloe vera gel

▶ **Participant Flow**
Show Participant Flow

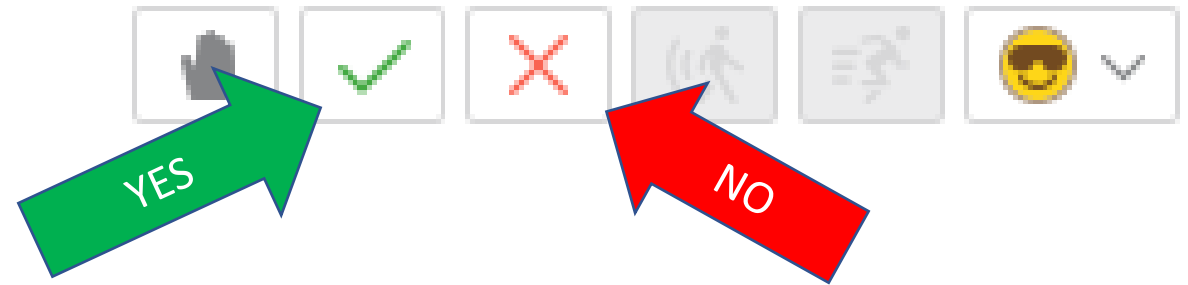
▶ **Baseline Characteristics**
Show Baseline Characteristics

▶ **Outcome Measures**
1. Primary: Level of Serum 25 OHD Level Pre-treatment and Post Treatment [Time Frame: baseline and 5 months]
Show Outcome Measure 1

▶ **Serious Adverse Events**
Show Serious Adverse Events



Are your patrons interested in information about genetics and genetic conditions?





Genetics Home Reference

Genetics information for the general public



Genetics Home Reference

- For everyone
- Designed to answer questions like:
 - What mutations are associated with what condition(s)?
 - What is the pattern of inheritance for a specific disease?
 - How do I find a test for a genetic disease?
- *Help Me Understand Genetics*: an introduction to the fundamentals of human genetics



Your Guide to Understanding
Genetic Conditions

 × 🔍

[Health Conditions](#)

[Genes](#)

[Chromosomes & mtDNA](#)

[Resources](#)

[Help Me Understand Genetics](#)

Demo: Genetics Home Reference

ghr.nlm.nih.gov



With search or browse find **opioid addiction**

1. What genes are associated with opioid addiction?
2. Where would I go (what online resource) to find a genetic test?

Opioid addiction

[Printable PDF](#)[Open All](#)[Close All](#)

▼ Description

Opioid addiction is a long-lasting (chronic) disease that can cause major health, social, and economic problems. Opioids are a class of drugs that act in the nervous system to produce feelings of pleasure and pain relief. Some opioids are legally prescribed by healthcare providers to manage severe and chronic pain. Commonly prescribed opioids include oxycodone, fentanyl, buprenorphine, methadone, oxymorphone, hydrocodone, codeine, and morphine. Some other opioids, such as heroin, are illegal drugs of abuse.

Opioid addiction is characterized by a powerful, compulsive urge to use opioid drugs, even when they are no longer required medically. Opioids have a high potential for causing addiction in some people, even when the medications are prescribed appropriately and taken as directed. Many prescription opioids are misused or diverted to others. Individuals who become addicted may prioritize getting and using these drugs over other activities in their lives, often negatively impacting their professional and personal relationships. It is unknown why some people are more likely to become addicted than others.

Related Information

[What does it mean if a disorder seems to run in my family?](#)

[What is the prognosis of a genetic condition?](#)

[Genetic and Rare Diseases Information Center](#)

► Description

► Frequency

▼ Genetic Changes

The causes of opioid addiction are complex. This condition results from a combination of genetic, environmental, and lifestyle factors, some of which have not been identified.

Many of the genes that are thought to play a role in opioid addiction are involved in the endogenous opioid system, which is the body's internal system for regulating pain, reward, and addictive behaviors. It consists of opioid substances produced naturally within the body (called endogenous opioids) and their receptors, into which opioids fit like keys into locks. Opioids introduced from outside the body (called exogenous opioids), including opioid medications and heroin, also exert their effects by acting on these receptors. Variations in the genes that provide instructions for making opioid receptors have been studied extensively as genetic risk factors for opioid addiction. Researchers suspect that differences in the receptors' structure and function influence how the body responds to opioids.

Opioid receptors are found in the nervous system, where they are embedded in the [outer membrane](#) of nerve cells ([neurons](#)). When endogenous or exogenous opioids attach (bind) to the receptors, the interaction triggers a series of chemical changes within and between neurons that leads to feelings of pleasure and pain relief. **The mu (μ) opioid receptor, which is produced from the [OPRM1](#) gene, is the primary receptor for most opioid drugs.** Common variations in the [OPRM1](#) gene appear to influence how the body responds to opioids, including the amount of an opioid medication needed to achieve pain relief. At least in some populations, these variations have also been associated with the risk of opioid addiction.

Related Information

[What is a gene?](#)

[What is a gene mutation and how do mutations occur?](#)

[How can gene mutations affect health and development?](#)

More about [Mutations and Health](#)

Opioid addiction is a complex disorder, and nongenetic factors also play a critical role. Factors that have been shown to increase the risk of opioid addiction include a history of substance abuse; depression or other psychiatric disorders; childhood abuse or neglect; and certain personality traits, including impulsivity and sensation-seeking. Living in poverty and in a rural area, associating with others who abuse opioids or other substances, and having easy access to prescription or illegal opioids also contribute to a person's risk of opioid addiction. It is likely that a combination of health, social, economic, and lifestyle factors interact with genetic factors to determine an individual's risk.

▼ Learn more about the genes associated with opioid addiction

ABCB1 AVPR1A BDNF COMT CSNK1E CYP2B6 DRD2 DRD3 DRD4
FKBP5 GABRG1 GAD1 GAL GRIN2A HTR1B OPRD1 OPRK1 OPRL1
OPRM1 PDYN PNOC

▶ Inheritance Pattern

▶ Diagnosis & Management Resources

▶ Other Names for This Condition

▶ Additional Information & Resources

▼ Diagnosis & Management Resources

▶ Formal Treatment/Management Guidelines (1 link)

▼ Genetic Testing (2 links)

- [Genetic Testing Registry: Opioid dependence 1](#)
- [Genetic Testing Registry: Opioid-Related Disorders](#)

▶ Other Diagnosis and Management Resources (5 links)

▶ General Information from MedlinePlus (5 links)

Related Information

[How are genetic conditions diagnosed?](#)

[How are genetic conditions treated or managed?](#)

[What is genetic testing?](#)

[How can I find a genetics professional in my area?](#)




Help Me Understand Genetics

An introduction to fundamental topics related to human genetics, including illustrations and basic explanations of genetics concepts.

[Printable PDF \(6MB\)](#)[Open All](#)[Close All](#)[▶ Cells and DNA](#)[▶ Mutations and Health](#)[▶ How Genes Work](#)[▶ Gene Families](#)

Genetics

- [Genetics Home Reference: opioid addiction](#)  (National Library of Medicine)

Images

[Home](#) → [Health Topics](#) → [Opioid Abuse and Addiction](#)

Opioid Abuse and Addiction

Also called: Narcotics, Opiates



On this page

Basics

- [Summary](#)
- [Start Here](#)
- [Latest News](#)
- [Diagnosis and Tests](#)
- [Prevention and Risk Factors](#)
- [Treatments and Therapies](#)

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Get Opioid Abuse and Addiction updates by email 

GO

Summary

Opioids, sometimes called narcotics, are a type of drug. They include strong prescription [pain relievers](#), such as oxycodone, hydrocodone, fentanyl, and tramadol. The illegal drug [heroin](#) is also an opioid. Some opioids are made from the opium plant, and others are synthetic (man-made).

References and abstracts from MEDLINE/PubMed (National Library of Medicine)

- [Article: The Neurobiology of Opioid Addiction and the Potential for Prevention...](#)
- [Article: Strategies for Reducing Opioid-Overdose Deaths - Lessons from Canada.](#)
- [Article: Suicide: A Silent Contributor to Opioid-Overdose Deaths.](#)



U.S. National Library of Medicine

Learning Resources Database



U.S. National Library of Medicine

What is it?

- Database that brings together NLM materials in one place
- API allowing libraries to link to NLM content



Scope

- Videos
- Tutorials
- Webinars
- Other materials produced by NLM

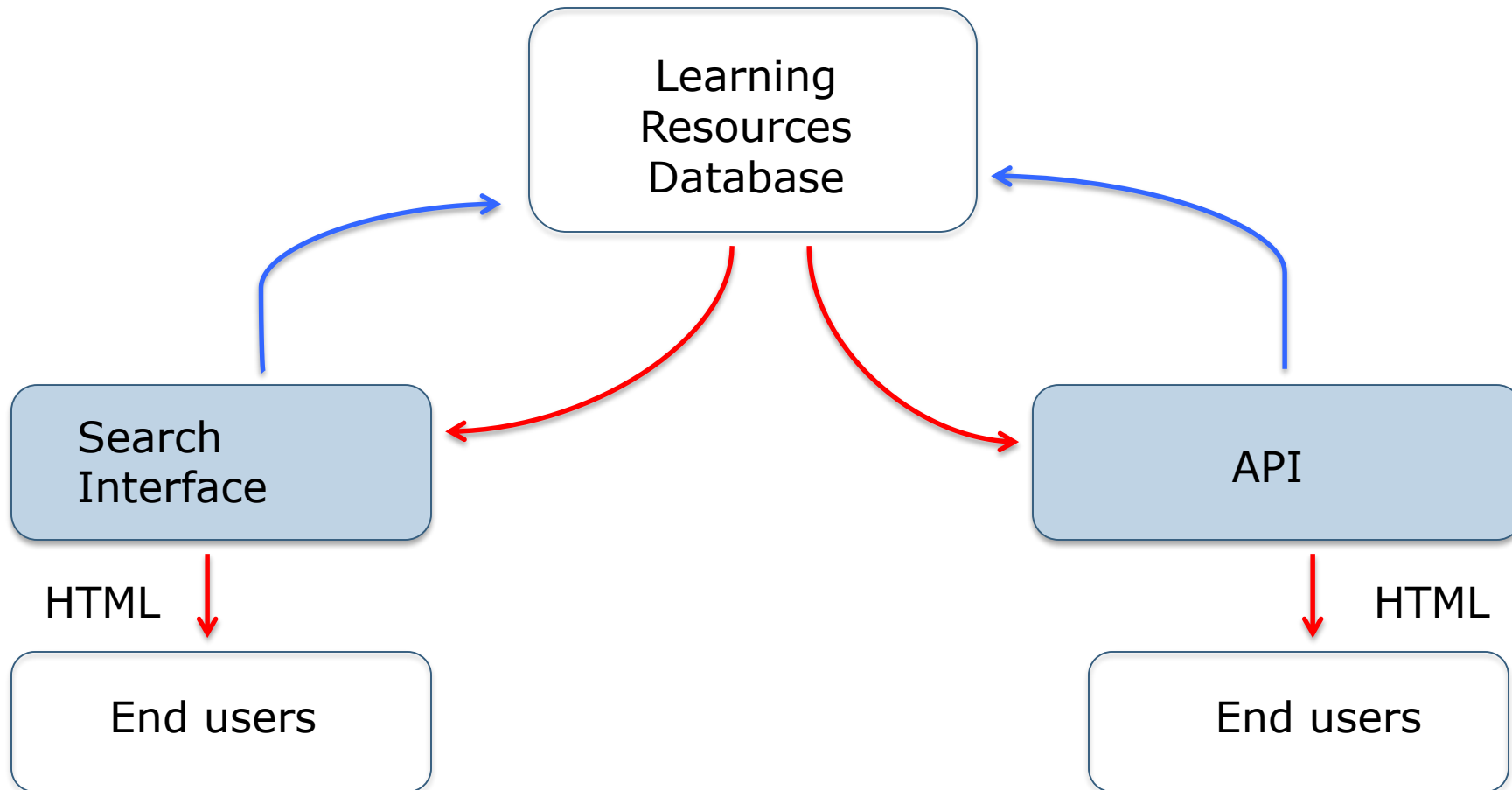
Examples: PubMed Quick Tours, videos on using the RxNorm API, finding clinical research in ClinicalTrials.gov.



Components

- Search Interface
 - Where users can search for resources
- REST API
 - Provides URIs that allow searching by title, subject, description, keywords
 - Returns JSON that web pages can parse and display for end users





Where do I find it?

- [Learn.nlm.nih.gov](https://learn.nlm.nih.gov)
- Linked under Upcoming Training on the new [NLM homepage](#)



Using the API to Embed Content

1. Determine the content you would like to embed.
2. Create the URL for the call to the API.
 - Example for the PubMed subject area:
<https://learn.nlm.nih.gov/rest/search?subjects=S019080>
3. Embed this URL into the code for the final page.



NLM Support Center

NLM Support Center

Q What can we help you with?

 e.g. Error in pubmed citation

 Search

[Write to the help desk](#)

The Knowledge Base contains numerous support references, created by our support professionals who have resolved issues for our customers. It is constantly updated, expanded, and refined to ensure that you have access to the very latest information.

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[Genes & Genomes](#)

[Clinical Trials](#)

[Getting NLM Data](#)

[Grants & Funding](#)

[History of Medicine](#)