

# Librium

Chlordiazepoxide

Scientific Name:

1,4-benzodiazepin-2-amine 4-oxide hydrochloride

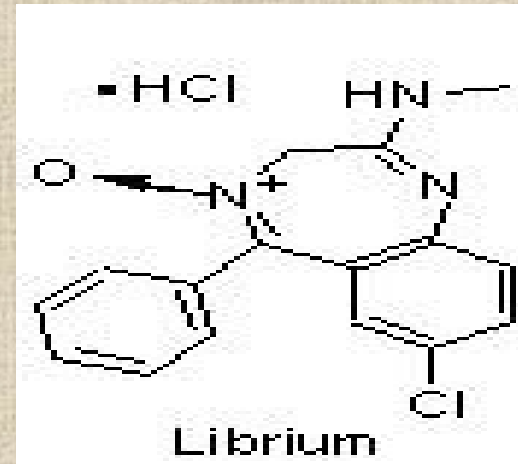
Pronunciation: klor dye az e POX ide

Brand: Libritabs, Librium, Mitran, Poxi

Usage Chlordiazepoxide is in a class of drugs called benzodiazepines. Chlordiazepoxide affects chemicals in the brain that may become unbalanced and cause anxiety or symptoms of alcohol withdrawal.

Chlordiazepoxide is used to relieve anxiety, nervousness, and tension associated with anxiety disorder. Chlordiazepoxide is also used to reduce symptoms associated with alcohol withdrawal.

CAS registry



# Founder of Librium

## Dr. Leo Sternbach

- Leo accidentally found Librium during his studies in a New Jersey based laboratory of Hoffmann-La Roche.
- Dr. Sternbach was studying the benzheptoxdiazines and synthesizing the drugs for their therapeutic effects.
- He treated one of the derivatives with methylamine, a primary amine.
- He labeled his results, a white crystalline water soluble powder Ro-5-0690 and shelved it for examination.
- He forgot about the compound for 18 months
- It wasn't until a lab assistant was cleaning up and found the compound and asked if it should be thrown away or sent for screening.
- Sternbach sent it to the Roche laboratory for further evaluation
- The report from the head of pharmacology Dr. Randall stated that the substance was a hypnotic, sedative.

# Testing of the drug

- 1958 the Ro 5-0690 compound also known as (methaminodiazepoxide or chlordiazepoxide) was administered to geriatric patients in large doses and was found to be primarily sedating.
- It caused ataxia and slurred speech
- The use of the drug was diminished following the results of the testing.
- Dr. Irvin Cohen and two clinical investigators in Galveston TX decided to participate in clinical trials of the drug in psychoneurotic patients who received office-based treatment.
- They were impressed with the drug's anxiolytic action, which occurred without any accompanying clouding of consciousness or intellectual dysfunction.
- Phase III testing in thousands of patients (prisons, clinics, and private offices) led to the approval by the FDA in February 1960.
- It was then marketed as Librium

## **What are the possible side effects of chlordiazepoxide?**

- **an allergic reaction (difficulty breathing; closing of the throat; swelling of the lips, face, or tongue; or hives);**
  - **sores in the mouth or throat;**
  - **yellowing of the skin or eyes;**
  - **a rash;**
  - **hallucinations or severe confusion; or**
  - **changes in vision.**
- **Chlordiazepoxide may increase the effects of other drugs that cause drowsiness, including antidepressants, alcohol, antihistamines, sedatives (used to treat insomnia), pain relievers, anxiety medicines, seizure medicines, and muscle relaxants**

A graphic of a spiral-bound notebook with a brown cover and a light beige page. The spiral binding is on the left side. The page contains the text "How does it work" at the top, followed by a horizontal line and a bullet point "• Mode of Action".

# How does it work

- 
- Mode of Action

A graphic of a spiral-bound notebook with a brown cover and a light beige page. The spiral binding is on the left side. The text "Used for treatment of" is centered on the page.

Used for treatment of

A spiral-bound notebook with a brown cover and a light beige page. The page is divided into two sections by a horizontal line. The top section contains the text "Cost & Sales".

# Cost & Sales