

**Diltiazem Hcl Cas No. 75472-91-2**

Diltiazem is primarily used for controlling high blood pressure and treating chest pain in adults. This eMedTV page further discusses diltiazem uses, including how the drug works and several off-label uses of the medicine (such as treating migraines).

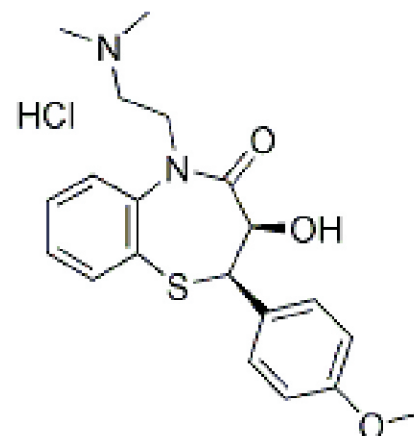
Active Pharmaceuticals Ingredients Manufacturers



Taj Pharma PDF

**Taj Pharmaceuticals Ltd.****Diltiazem Hcl****CAS No. : 75472-91-2****Chemical Formulas**

CBNumber :CB2734251  
 Chemical Name :DESACETYL DILTIAZEM HCL  
 CAS No :75472-91-2  
 Molecular Formula :C20H25ClN2O3S  
 Formula Weight :408.94



Diltiazem is a drug that is approved to treat high blood pressure and certain types of chest pain. This eMedTV article explains how diltiazem works, describes some potential side effects, and discusses how and when to take the medication.

Calcium is an important mineral in the function of the heart. Calcium enters the heart muscle cells through calcium channels, which are pores located in the cell membrane

Calcium ions prompt the heart muscle to contract, stimulate the natural pacemaker of the heart and influence conduction of current across heart cells.

Calcium channels also are found in blood vessels. These channels allow calcium ions to enter the cell. The result is constriction (narrowing) of the vessel.

Diltiazem belongs to a family of medications known as calcium channel blockers. It is used to treat high blood pressure and angina (chest pain). It works by relaxing blood vessels and by reducing the workload of the heart. The injectable form of this medication is sometimes used in the hospital to bring abnormal heart rhythms under control.

Your doctor may have suggested this medication for conditions other than the ones listed in these drug information articles. If you have not discussed this with your doctor or are not sure why you are taking this medication, speak to your doctor. Do not stop taking this medication without consulting your doctor.

If you are taking diltiazem and impotence occurs, make sure to talk to your doctor. This eMedTV page explains that up to 2 percent of men taking diltiazem experience impotence. This page also covers some treatment options your doctor may recommend.

**How To Use**

Diltiazem is primarily used for controlling high blood pressure and treating chest pain in adults. This eMedTV page further discusses diltiazem uses, including how the drug works and several off-label uses of the medicine (such as treating migraines).

**How should I use this medication ?**

The recommended dose of diltiazem can range from 30 mg to 360 mg daily. The capsules should not be chewed or crushed.

Many things can affect the dose of medication that a person needs, such as body weight, other medical conditions, and other medications. If your doctor has recommended a dose different from the ones listed here, do not change the way that you are taking the medication without consulting your doctor.



Taj Pharmaceuticals Ltd

**Diltiazem Hcl**

Cas No. 86408-45-9



It is important that this medication be taken exactly as prescribed by your doctor. If you miss a dose, take it as soon as possible and continue on with your regular schedule. If it is almost time for your next dose, skip the missed dose and continue on with your regular dosing schedule. Do not take a double dose to make up for a missed one.

Keep this and other medications out of the reach of children.

Do not give this medication to anyone else, even if they have the same symptoms as you do. It can be harmful for people to take this medication if their doctor has not prescribed it.

- # Diltiazem Hcl should be swallowed whole with a full glass of water unless your doctor directs you otherwise.
- # May be taken with or without meals.
- # Diltiazem Hcl must be taken as directed if used to prevent chest pain.
- # It is not effective if taken only when chest pain occurs.
- # Do not stop taking Diltiazem Hcl suddenly without your doctor's permission.
- # Your dose may need to be gradually decreased.



The primary use of diltiazem is for treatment (and sometimes prevention) of cardiac arrhythmias, including atrial fibrillation, atrial flutter and supraventricular tachycardia. Diltiazem is also used in management of some cats with the heart muscle disease hypertrophic cardiomyopathy. Diltiazem can lower high blood pressure; however, other calcium channel blockers are more effective for this purpose.

### **Diltiazem Hcl Side effects**

Although most people do not experience any problems while taking diltiazem, side effects are possible. This segment describes common and rare side effects of diltiazem, and explains which side effects may need immediate medical care.

While generally safe and effective when prescribed by a veterinarian, diltiazem can cause side effects in some animals. Diltiazem should not be used in animals with known hypersensitivity or allergy to the drug.

Diltiazem may interact with other medications. Consult with your veterinarian to determine if other drugs your pet is receiving could interact with diltiazem. Such drugs include digoxin, propranolol, cimetidine and cyclosporin.

Diltiazem may relax blood vessels or depress the heart contraction or rate to such a degree that some animals become weak due to low blood pressure.

Side effects include vomiting, diarrhea, loss of appetite and a slow heart rate. Any symptoms should be reported to your veterinarian.

Diltiazem must be given with care to animals with heart failure. High doses can depress heart muscle function.

Side effects are more likely when diltiazem is administered with other potent cardiovascular drugs, such as diuretics or other vasodilators (drugs that act to relax blood vessels).

Common side effects include headache, drowsiness, swelling of feet and ankles, constipation, nausea, sudden weight gain, and fatigue.

More serious, but less common side effects include, irregular or slow heartbeat, shortness of breath, and fatigue caused by heart failure.

There may be some drug interactions between Diltiazem HCL and aspirin, beta-blockers, digitalis preparations, carbamazepine, cyclosporine, digoxin, lithium, oral diabetes agents, phenytoin, rifampin, cimetidine, fluvoxamine, or ranitidine.



### What side effects are possible with this medication ?

Many medications can cause side effects. A side effect is an unwanted response to a medication when it is taken in normal doses. Side effects can be mild or severe, temporary or permanent. The side effects listed below are not experienced by everyone who takes this medication. If you are concerned about side effects, discuss the risks and benefits of this medication with your doctor.

The following side effects have been reported by at least 1% of people taking this medication. Many of these side effects can be managed, and some may go away on their own over time.

### DOSAGE

This page explains that the starting diltiazem dosage for treating high blood pressure or chest pain will be based on several factors. This page explores these factors and lists dosing guidelines for extended-release and short-acting diltiazem

# Medication should never be administered without first consulting your veterinarian.

# The typical dose administered to dogs is 0.25 to 0.5 mg per pound (0.5 to 1.0 mg/kg) every eight hours, but the dose is quite variable depending on the response and underlying medical condition.

# The typical dose administered to cats is 7.5 mg per cat three times daily.

# Frequently diltiazem is given with other drugs, especially in pets undergoing treatment for heart failure or arrhythmias (abnormal heart rhythm). In these situations, a lower initial dose may be prescribed to allow the pet time to adjust to the new medication.

Hypertension: Dosage needs to be adjusted by titration to individual patient needs. When used as monotherapy, usual starting doses are 120 to 240 mg once daily. Maximum antihypertensive effect is usually observed by 14 days of chronic therapy; therefore, dosage adjustments should be scheduled accordingly. The usual dosage range studied in clinical trials was 120 to 540 mg once daily. Current clinical experience with 540 mg dose is limited; however, the dose may be increased to 540 mg once daily.

# If overdose is suspected, contact your local poison control center or emergency room immediately.

# Symptoms of overdose may include dizziness, weakness, slowed or irregular heartbeat, nausea, drowsiness, confusion, and slurred speech.

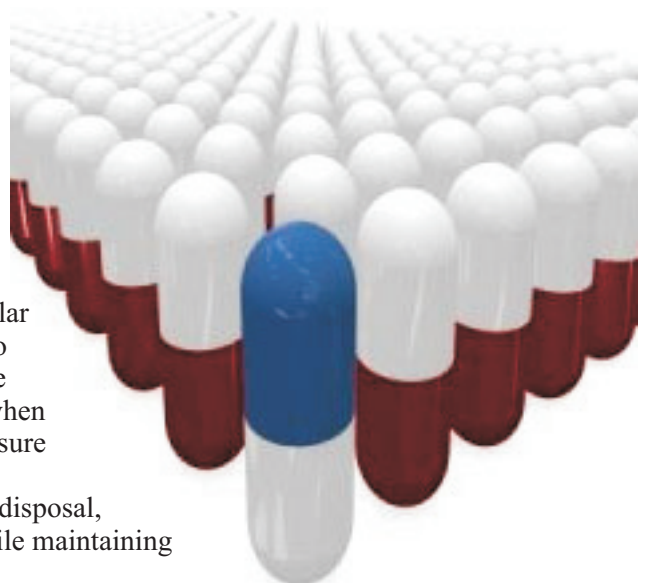
### Missed Dose

If you miss a dose, take as soon as remembered; do not take it if it is almost time for the next dose, instead, skip the missed dose and resume your usual dosing schedule.

Do not "double-up the dose to catch up.

### Diltiazem Hcl Pharmacology

Hypertension is associated with increased cardio- and cerebrovascular morbidity and mortality; antihypertensive drugs have been shown to reduce the risk of adverse cardio- and cerebrovascular events. These events tend to be more common during the morning hours, a time when both normo- and hypertensives show a circadian peak in blood pressure (BP). Although clinicians have a number of safe and well-tolerated antihypertensive agents in various classes and formulations at their disposal, few are designed to specifically attenuate the morning BP surge while maintaining 24-h efficacy.





### Pharmacology and use :

Diltiazem, a benzothiazepine calcium-channel blocker, is used alone or with an angiotensin-converting enzyme inhibitor, to treat hypertension, chronic stable angina pectoris, and Prinzmetal's variant angina. Diltiazem is similar to other peripheral vasodilators. Diltiazem inhibits the influx of extra cellular calcium across the myocardial and vascular smooth muscle cell membranes possibly by deforming the channel, inhibiting ion-control gating mechanisms, and/or interfering with the release of calcium from the sarcoplasmic reticulum. The decrease in intracellular calcium inhibits the contractile processes of the myocardial smooth muscle cells, causing dilation of the coronary and systemic arteries, increased oxygen delivery to the myocardial tissue, decreased total peripheral resistance, decreased systemic blood pressure, and decreased afterload. For the treatment of Hypertension.

### Mechanism Of Action :

Possibly by deforming the channel, inhibiting ion-control gating mechanisms, and/or interfering with the release of calcium from the sarcoplasmic reticulum, diltiazem, like verapamil, inhibits the influx of extracellular calcium across both the myocardial and vascular smooth muscle cell membranes. The resultant inhibition of the contractile processes of the myocardial smooth muscle cells leads to dilation of the coronary and systemic arteries and improved oxygen delivery to the myocardial tissues.

Diltiazem hydrochloride is a white to off-white crystalline powder with a bitter taste. It is soluble in water, methanol, and chloroform.

Diltiazem hydrochloride injection is a clear, colorless, sterile, nonpyrogenic solution. It has a pH range of 3.7 to 4.1.

Diltiazem hydrochloride injection is for direct intravenous bolus injection and continuous intravenous infusion.

Each mL contains: 5 mg Diltiazem Hydrochloride, USP, 0.75 mg Citric Acid Anhydrous, USP, 0.65 mg sodium citrate dihydrate USP, 50 mg sorbitol NF, and water for injection, USP q.s. sodium hydroxide or hydrochloric acid is used to adjust pH

Note /Government Notification: These chemicals are designated as those that are used in the manufacture of the controlled substances and are important to the manufacture of the substances. For any (Control Substance) products Import and Export \*\*\* subjected to your country government laws /control substance ACT.

Information: The information on this web page is provided to help you to work safely, but it is intended to be an overview of hazards, not a replacement for a full Material Safety Data Sheet (MSDS). MSDS forms can be downloaded from the web sites of many chemical suppliers. Also that the information on the PTCL Safety web site, where this page was hosted, has been copied onto many other sites, often without permission. If you have any doubts about the veracity of the information that you are viewing, or have any queries, please check the URL that your web browser displays for this page. If the URL begins "www.tajapi.com/www/Denatonium Benzoate.htm/" the page is maintained by the Safety Officer in Physical Chemistry at Oxford University. If not, this page is a copy made by some other person and we have no responsibility for it.

The Controlled Substances Act (CSA) was enacted into law by the Congress of the United States as Title II of the Comprehensive Drug Abuse Prevention and Control Act of 1970.[1] The CSA is the federal U.S. drug policy under which the manufacture, importation, possession, use and distribution of certain substances is regulated. The Act also served as the national implementing legislation for the Single Convention on Narcotic Drugs

This document plus the full buyer/ prescribing information, prepared for health professionals can be found at:

<http://www.tajapi.com>

or by contacting the sponsor, Taj Pharmaceuticals Limited., at:  
91 022 30601000.

This leaflet was prepared by  
Taj Pharmaceuticals Limited,  
Mumbai (India).  
MPSTJ278

Last revised: 29 August 2009