

Diltiazem is a calcium channel blocker used to treat high blood pressure, angina (chest pain), and certain heart rhythm disorders. It works by relaxing blood vessels and reducing the heart's workload.

🧪 Chemical Composition

- **Active Ingredient:** Diltiazem hydrochloride*
- **Molecular Formula:** $C_{22}H_{26}N_2O_4S \cdot HCl$
- **Drug Class:** Calcium channel blocker (non-dihydropyridine)
- **Formulations:**
 - Tablets: Immediate-release (30 mg, 60 mg)
 - Extended-release capsules: 120 mg, 180 mg, 240 mg, 300 mg
 - Injection: 5 mg/mL
 - Brand Names: Cardizem, Cartia XT, Tiazac, Dilt-XR, Matzim LA

💊 Dosage & Administration

- **Route:** Oral or intravenous
- **Typical Adult Dosage:**
 - *Hypertension:* 180–240 mg once daily (extended-release)
 - *Angina:* 30 mg 4 times daily (immediate-release) or 120–180 mg once daily
 - *Arrhythmia (IV):* Initial 0.25 mg/kg IV bolus over 2 minutes; may repeat or follow with infusion
- **Pediatric Use:** Rare; used under specialist supervision
- **Administration Tips:**
 - Take extended-release capsules whole; do not crush or chew
 - Monitor blood pressure and heart rate regularly

🌱 Medical Uses

- **Primary Indications:**
 - *Hypertension* (high blood pressure)
 - *Angina pectoris* (chronic stable and vasospastic)
 - *Atrial fibrillation* and *supraventricular tachycardia* (IV use)
 - *Anal fissures* (topical use in some cases)
- **Mechanism of Action:**
 - Inhibits calcium ion influx into cardiac and smooth muscle cells
 - Reduces myocardial oxygen demand and dilates coronary arteries

🚑 Side Effects

Common:

- Headache
- Dizziness
- Nausea
- Edema (swelling of hands/feet)

- Fatigue

****Serious:****

- Bradycardia (slow heart rate)
- Hypotension (low blood pressure)
- Heart block
- Liver enzyme elevation
- Allergic reactions (rash, itching)

🚀 Risks & Precautions

- **Contraindications:**
 - Severe hypotension
 - Sick sinus syndrome or AV block (without pacemaker)
 - Acute myocardial infarction with pulmonary congestion
- **Pregnancy & Breastfeeding:**
 - Use only if clearly needed; consult a physician
- **Drug Interactions:**
 - May interact with beta-blockers, digoxin, statins, and CYP3A4 inhibitors
- **Monitoring:**
 - Regular ECG, liver function tests, and blood pressure checks recommended

🌟 Patient Feedback & Complaints

****Positive Feedback:****

- Effective in controlling blood pressure and angina
- Convenient once-daily dosing (extended-release)
- Fewer side effects compared to some other heart medications

****Common Complaints:****

- Swelling in legs or ankles
- Fatigue or dizziness
- Slow heart rate
- Occasional constipation or nausea

📊 Summary Table

Category	Details
Drug Name	Diltiazem
Active Ingredient	Diltiazem hydrochloride
Use	Hypertension, angina, arrhythmia

Dosage arrhythmia	180–240 mg once daily (ER); 30 mg 4x/day (IR); IV for
Common Side Effects	Headache, dizziness, swelling, nausea
Serious Risks	Bradycardia, hypotension, heart block, liver issues
Patient Feedback	Effective; swelling, fatigue, slow heart rate
Contraindications	Severe hypotension, AV block, sick sinus syndrome

Sources: [Drugs.com](<https://www.drugs.com/diltiazem.html>), [Mayo Clinic](<https://www.mayoclinic.org/drugs-supplements/diltiazem-oral-route/description/drg-20071775>), [1mg](<https://www.1mg.com/medicines/diltiazem-232289>)
