

Diltiazem (Cardizem, Cartia XT, Tiazac) Considerations for Use*

US/FDA Approved Indication: Heart Rate Control for Atrial Fibrillation

Mechanism of Action	Blocks calcium-dependent contractions in cardiac and peripheral smooth muscle leading to vasodilation; slows cardiac conduction through the AV node
Dosing[†]	<p><u>Acute setting</u>: 0.25 mg/kg (average 20 mg) IV over 2 min; may give 2nd bolus (0.35 mg/kg, average 25 mg) can be given 15 minutes later if HR > 100 bpm), then 5 to 15 IV mg/hr.</p> <p>Continuous IV therapy should not be administered for longer than 24 hours</p> <p><u>Non-acute setting or maintenance</u>: 120 to 480 mg PO daily.</p> <p>Can switch to slow-release drug, which is available and preferred.</p> <p><u>Elderly</u>: Initiate dosage at the lower end of the adult range</p> <p><u>Hepatic Impairment</u>: May accumulate; dose based on clinical response</p> <p><u>Renal Impairment</u>: No dosage adjustment needed</p>
Contraindications	<ul style="list-style-type: none"> • acute MI and pulmonary congestion • hypotension (SBP <90) • sick sinus syndrome without pacemaker • 2nd or 3rd degree AV block without pacemaker
Major Side Effects	hypotension, heart block, HF
Dosage forms and Strengths	<p><u>PO</u>:</p> <p>30 mg, 60 mg, 90 mg, 120 mg immediate-release tablets</p> <p>120 mg, 180 mg, 240 mg, 300 mg, 360 mg, 420 mg extended-release capsules</p> <p>120 mg, 180 mg, 240 mg extended-release tablets</p> <p><u>IV</u>:</p> <p>100 mg powder for injection</p> <p>125 mg/25 mL, 50 mg/10 mL, 25 mg/5 mL, 5 mg/mL solution for injection</p>
Special Notes	<p>Many diltiazem products are not equivalent on a mg:mg basis; monitor response and side effects when interchanging between products.</p> <p>Cardizem LA is a chronotherapeutic product; give at bedtime to blunt early morning surge in blood pressure</p>
Counseling	Contents of extended-release capsules may be sprinkled over food, but do not chew or crush contents

*Refer to prescribing information for more complete information.

†Dosages given in the table may differ from those recommended by the manufacturers.

Sources:

1. American College of Cardiology (ACC), American Heart Association (AHA), and the European Society of Cardiology (ESC). *ACC/AHA/ESC 2006 Guidelines for the Management of Patients With Atrial Fibrillation*. Washington, DC: American College of Cardiology.
2. Heart Rhythm Society. *AF360 Pocket Guide: Practical Rate and Rhythm Management of Atrial Fibrillation*. 2010, Washington, DC: Heart Rhythm Society.
3. *Tarascon Pocket Pharmacopoeia*®2012.