



Our Recommendations

Calcium Channel Blockers (CCBs) are used by millions of Americans to treat high blood pressure, angina, and certain heart rhythm abnormalities. The monthly cost for these drugs varies from less than \$20 to more than \$200. This report gives you information that will help you: (a) determine when you might need a CCB; (b) choose the right CCB and dosage; and (c) save \$1,000 or more per year if you are currently taking or have been prescribed an expensive brand-name CCB.

To help you and your doctor choose the right calcium channel blocker if you need one, *Consumer Reports Best Buy Drugs* has evaluated the drugs in this category based on their effectiveness, safety, and cost. This 2-page brief is a summary of a 20-page report you can access for free on the Internet at ConsumerReportsHealth.org/BestBuyDrugs. This Web site also has other free reports about other drugs we've analyzed.

DO YOU NEED A CALCIUM CHANNEL BLOCKER?

CCBs are typically not prescribed as initial or first-line treatment in people with high blood pressure who have no other form of heart disease. Instead, CCBs are often used as a second or third drug to help lower blood pressure when other drugs have failed to bring levels down enough.

CCBs should be considered as initial treatment (usually in combination with other drugs) for people who have high blood pressure plus angina and/or a high risk of stroke. CCBs should not be taken by people with heart failure (often called congestive heart failure).

CCBs are effective medicines that have been shown to lower blood pressure and help prevent and treat the symptoms of angina (chest pain). In addition, some CCBs are effective in controlling certain heart rhythm problems.

Taking effectiveness, safety, dosing convenience, and cost into account, we have chosen the following four CCBs as *Consumer Reports Best Buy Drugs*. They can save you \$1,000 to \$1,700 per year if you are already taking or have been prescribed an expensive brand-name CCB.

- For high blood pressure – *diltiazem CD, diltiazem SR, felodipine SR, nifedipine SR, and verapamil SR*
- For angina – *nifedipine SR*
- For heart rhythm abnormalities – *diltiazem CD, diltiazem SR, and verapamil SR*

All these medicines are available as low-cost or moderately priced generic drugs. All are as effective as other CCBs. And all are long-acting pills that need to be taken just once a day.

CCBs are generally safe drugs, but they can cause some side effects, most commonly dizziness, headache, flushing, and swollen ankles. Bleeding gums may also occur. Serious side effects include breathing problems; an irregular, fast heart beat; or a dangerously slow heart rate. Starting with as low a dose as possible can reduce your risk of side effects.

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Blood Pressure Levels and Treatment Guidance

Blood Pressure Classification	Systolic Measure (mm Hg)	Diastolic Measure (mm Hg)	General Treatment Guidance
Normal	Below 120	Below 80	- No treatment needed - Healthy lifestyle encouraged to maintain normal blood pressure
Prehypertensive	120-139	80-89	- Lifestyle changes needed: weight loss, quitting smoking, low-salt and low-fat diet, curb excessive alcohol use, and increased exercise - Drug treatment not indicated except if you have diabetes, kidney, or heart disease
Stage 1 High Blood Pressure	140-159	90-99	- Lifestyle changes urged, same as above - Drug treatment needed. Doctor may start with one medicine (usually a diuretic) to see if it does the job
Stage 2 High Blood Pressure	160 or above	100 or above	- Contact your doctor immediately - Drug treatment needed. Two or more medicines usually required to bring blood pressure down - Lifestyle changes, as described above, are a critical component of your treatment

Source: Chobanian AV, Bakris GL, Black HR, et al., "The seventh report of the Joint National Committee on prevention, detection, evaluation and treatment of high blood pressure," *Journal of the American Medical Association*, 2003; 289(19):2560-2572

Calcium Channel Blockers – Cost Comparison and Best Buy Indication – Examples*

Generic name, dosage strength, and form	Brand Name ¹	Drug a Generic (Yes) or Branded Generic (BG) ²	Frequency per day ³	Average monthly cost ⁴	Best Buy Indication
Amlodipine 5 mg tablet	Norvasc	No	One	\$75	
Amlodipine 10 mg tablet	Generic	Yes	One	\$42	
 Diltiazem CD 120 mg capsule ⁵	Generic	Yes	One	\$30	Heart rhythm abnormalities, high blood pressure
Diltiazem CD 120 mg capsule	Cardizem CD	No	One	\$96	
 Diltiazem CD 180 mg capsule	Generic	Yes	One	\$35	Heart rhythm abnormalities, high blood pressure
Diltiazem CD 180 mg capsule	Cardizem CD	No	One	\$115	
 Diltiazem SR 60 mg capsule	Generic	Yes	One	\$22	Heart rhythm abnormalities, high blood pressure
Diltiazem SR 60 mg capsule	Cardizem SR	No	One	\$NA ⁷	
 Diltiazem SR 90 mg capsule	Generic	Yes	One	\$28	Heart rhythm abnormalities, high blood pressure
 Felodipine SR 5 mg tablet	Generic	Yes	One	\$41	High blood pressure
 Felodipine SR 10 mg tablet	Generic	Yes	One	\$71	High blood pressure
Isradipine 5 mg capsule	Generic	Yes	Two	\$122	
Nicardipine 30 mg capsule	Generic	Yes	Three	\$42	
Nicardipine SR 30 mg capsule	Cardene SR	No	Two	\$100	
Nifedipine 10 mg capsule	Generic	Yes	Three	\$75	
Nifedipine 10 mg capsule	Procardia	No	Three	\$135	
 Nifedipine SR 30 mg tablet	Generic	Yes	One	\$38	Angina and high blood pressure
Nifedipine SR 30 mg tablet	Procardia XL	No	One	\$75	
 Nifedipine SR 60 mg tablet	Generic	Yes	One	\$59	Angina and high blood pressure
Nifedipine SR 60 mg tablet	Procardia XL	No	One	\$136	
Nisoldipine SR 20 mg tablet	Generic	Yes	One	\$81	
Nisoldipine SR 20 mg tablet	Sular	No	One	\$112	
 Verapamil SR 120 mg tablet	Generic	Yes	One	\$36	Heart rhythm abnormalities, high blood pressure
Verapamil SR 120 mg capsule	Verelan	No	One	\$124	
 Verapamil SR 180 mg tablet	Generic	Yes	One	\$36	Heart rhythm abnormalities, high blood pressure
Verapamil SR 180 mg capsule	Verelan	No	One	\$125	
 Verapamil SR 100 mg capsule	Generic	Yes	One	\$69	Heart rhythm abnormalities, high blood pressure
 Verapamil SR 100 mg capsule	Generic (PM) ⁶	Yes	One	\$64	Heart rhythm abnormalities, high blood pressure
Verapamil SR 100 mg capsule	Verelan PM	No	One	\$93	
 Verapamil SR 200 mg capsule	Generic	Yes	One	\$95	Heart rhythm abnormalities, high blood pressure
 Verapamil SR 200 mg capsule	Generic (PM)	Yes	One	\$76	Heart rhythm abnormalities, high blood pressure
Verapamil SR 200 mg capsule	Verelan PM	Yes	One	\$114	

* Selected drugs and dosages only. For a complete price list of CCBs, go to ConsumerReportsHealth.org/BestBuyDrugs to download the free, full 20-page report.

1. "Generic" indicates that this drug is sold as a generic under the generic or chemical name.
2. "Yes" means it is a generic, sold under the chemical name. "BG" means it is a branded generic, which is still a generic copy of an original drug. "No" means it is a brand-name drug not yet available as a generic or a branded generic.
3. Frequency per day reflects usual frequency; some medicines may be used more or less frequently.
4. Prices reflect nationwide cash prices of retail average for February 2009, rounded to the nearest dollar. Information derived by *Consumer Reports Best Buy Drugs* from data provided by Wolters Kluwer Health, Pharmaceutical Audit Suite®. Wolters Kluwer Health is not involved in our analysis or recommendations.
5. "SR" stands for sustained release, "CD" stands for continuous delivery.
6. PM is a type of extended-release formulation that is usually taken at night in order to reduce high blood pressure in the morning hours.
7. "NA" stands for not available.

NOTE: The information contained in the *Consumer Reports Best Buy Drugs*™ reports is for general informational purposes and is not intended to replace consultation with a physician or other health-care professional. Consumers Union is not liable for any loss or injury related to your use of the reports. The reports are intended solely for individual, non-commercial use and may not be used in advertising, promotion, or for any other commercial purpose.