



Using Beta-Blockers to treat

High Blood Pressure and Heart Disease

Comparing Effectiveness, Safety, and Price

Beta-blockers are used by tens of millions of Americans

to treat high blood pressure and other heart ailments. The cost of these drugs varies from less than \$10 per month to more than \$200, so your choice of medicine could mean a big difference in expense. This report gives you information that could save you up to \$1,000 to \$2,000 a year, if you take a generic beta-blocker instead of a brand-name one.

To help you and your doctor choose the right beta-blocker if you need one, *Consumer Reports Health 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 BETA-BLOCKER?

If you only have high blood pressure and no other heart condition, diuretics (widely known as "water pills") are a good first option. But if you're already taking a diuretic and your blood pressure is still not low enough, adding another drug, including a beta-blocker, to your regimen can help.

In contrast, if you have angina, heart failure, or if you have had a heart attack – with or without high blood pressure – our *Best Buy* beta-blockers may well be a first step in your treatment. The table below gives you general guidance on blood pressure levels and treatment.

Our independent evaluations are based on scientific reviews conducted by the Oregon Health and Science University-based Drug Effectiveness Review Project. These materials were made possible by a grant from the state Attorney General Consumer and Prescriber Education Grant Program, which is funded by the multi-state settlement of consumer fraud claims regarding the marketing of the prescription drug Neurontin (gabapentin).

Our Recommendations

Beta-blockers are effective, life-saving medicines that are generally considered safe. They work by blocking the effects of normal amounts of adrenaline on the heart and blood vessels. Adrenaline speeds up the heart rate, makes the heart muscle contract more strongly, and constricts arteries throughout the body—which can raise blood pressure. Beta-blockers slow down the heart and reduce its workload, which helps to decrease blood pressure.

Choosing a beta-blocker, and its dosage, depends on what you need it for. Studies show that some beta-blockers are more effective and safer than others for certain conditions.

Taking effectiveness, safety, and cost into account, we have selected the following beta-blockers, at all appropriate doses, as *Consumer Reports Health Best Buy Drugs*:

- As a second drug for high blood pressure — *atenolol, metoprolol tartrate, nadolol, and propranolol*
- For angina — *atenolol, metoprolol tartrate, nadolol, and propranolol*
- After a heart attack — *atenolol, metoprolol tartrate, and propranolol*
- For mild heart failure — *bisoprolol, carvedilol, and metoprolol succinate*
- For severe heart failure — *carvedilol*

All of these medicines are available as low-cost generics. All have been proven to be either as effective or superior to other beta-blockers.

This information was published in March 2011.

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	<ul style="list-style-type: none"> ■ No treatment needed ■ Healthy lifestyle encouraged to maintain normal blood pressure
Prehypertensive	120-139	80-89	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ 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

Beta-Blockers Cost Comparison and Best Buy Indication — Examples*

\$ indicates the dose of that drug is available for a low monthly cost through programs offered by chain stores. For example, Kroger, Sam's Club, Target, and Walmart offer a month's supply of selected generic drugs for \$4 or a three-month supply for \$10. Other stores, such as Costco, CVS, Kmart, and Walgreens, offer similar programs. Some programs have restrictions or membership fees, so check the details carefully for restrictions and to make sure your drug is covered.

Beta-blocker name, dosage strength, and form	Product name	Daily dosage frequency	Total daily dosage	Average monthly cost ²	Best Buy Indication
Acebutolol 200 mg capsule	Generic ¹	One	200 mg	\$20	
Acebutolol 200 mg capsule	Sectral	One	200 mg	\$102	
CR BEST BUY Atenolol 25 mg tablet	Generic	One	25 mg	\$6 \$	Angina, heart attack, 2nd drug for high blood pressure
CR BEST BUY Atenolol 25 mg tablet	Tenormin	One	25 mg	\$62	
CR BEST BUY Atenolol 50 mg tablet	Generic	One	50 mg	\$8 \$	Angina, heart attack, 2nd drug for high blood pressure
CR BEST BUY Atenolol 50 mg tablet	Tenormin	One	50 mg	\$61	
CR BEST BUY Betaxolol 10 mg tablet	Generic	One	10 mg	\$35	
CR BEST BUY Bisoprolol 5 mg tablet	Generic	One	5 mg	\$36 \$	Mild heart failure
CR BEST BUY Bisoprolol 5 mg tablet	Zebeta	One	5 mg	\$114	
CR BEST BUY Bisoprolol 10 mg tablet	Generic	One	10 mg	\$36	Mild heart failure
CR BEST BUY Bisoprolol 10 mg tablet	Zebeta	One	10 mg	\$112	
CR BEST BUY Carvedilol 3.125 mg tablet	Generic	Two	6.25 mg	\$45 \$	Mild and severe heart failure
CR BEST BUY Carvedilol 3.125 mg tablet	Coreg	Two	6.25 mg	\$167	
CR BEST BUY Carvedilol 6.25 mg tablet	Generic	Two	12.5 mg	\$49 \$	Mild and severe heart failure
CR BEST BUY Carvedilol 6.25 mg tablet	Coreg	Two	12.5 mg	\$161	
CR BEST BUY Carvedilol 12.5 mg tablet	Generic	Two	25 mg	\$47 \$	Mild and severe heart failure
CR BEST BUY Carvedilol 12.5 mg tablet	Coreg	Two	25 mg	\$169	
CR BEST BUY Metoprolol succinate 25 mg sustained-release tablet	Generic	One	25 mg	\$31 \$	Mild heart failure
CR BEST BUY Metoprolol succinate 25 mg sustained-release tablet	Toprol XL	One	25 mg	\$46	
CR BEST BUY Metoprolol succinate 50 mg sustained-release tablet	Generic	One	50 mg	\$32 \$	Mild heart failure
CR BEST BUY Metoprolol succinate 50 mg sustained-release tablet	Toprol XL	One	50 mg	\$47	
CR BEST BUY Metoprolol succinate 100 mg sustained-release tablet	Generic	One	100 mg	\$46 \$	Mild heart failure
CR BEST BUY Metoprolol succinate 100 mg sustained-release tablet	Toprol XL	One	100 mg	\$66	
CR BEST BUY Metoprolol tartrate 25 mg or 50 mg tablet	Generic	One	25 or 50 mg	\$3-4 \$	Angina, heart attack, 2nd drug for high blood pressure
CR BEST BUY Nadolol 20 mg tablet	Generic	One	20 mg	\$11 \$	Angina, 2nd drug for high blood pressure
CR BEST BUY Nadolol 20 mg tablet	Corgard	One	20 mg	\$94	
CR BEST BUY Nadolol 40 mg tablet	Generic	One	40 mg	\$10	Angina, 2nd drug for high blood pressure
CR BEST BUY Propranolol 10 mg tablet	Generic	Two	20 mg	\$8	Angina, heart attack, 2nd drug for high blood pressure
CR BEST BUY Propranolol 20 mg tablet	Generic	Two	40 mg	\$8	Angina, heart attack, 2nd drug for high blood pressure
CR BEST BUY Propranolol 40 mg tablet	Generic	Two	80 mg	\$60	Angina, heart attack, 2nd drug for high blood pressure

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

1. "Generic" indicates that this drug is sold by its generic name. For example, in this table, for the first drug listed, acebutolol, is the generic or chemical name and Sectral is the brand name. Both are available and they have the same active ingredient. In column 2, when the word "generic" appears, the price given is for the generic version. Note that the generic will almost always cost much less than the brand-name version.
2. Prices reflect nationwide retail average for January 2011, rounded to the nearest dollar. Information derived by *Consumer Reports Health Best Buy Drugs* from data provided by Wolters Kluwer Pharma Solutions, which is not involved in our analysis or recommendations.