

Treating Elevated Cholesterol and Heart Disease **The Statins** Comparing Effectiveness, Safety, and Price

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Consumer Reports

BEST BUY DRU

If you have high cholesterol or are at risk of heart attack or stroke, your doctor may prescribe a "statin" – the most widely used type of cholesterol-lowering drug. There are six statins. Three are now available as less expensive generics – lovastatin, pravastatin and simvastatin. One new combination drug – Vytorin – combines simvastatin with another type of cholesterol-lowering drug.

To help you and your doctor choose the statin that is right for you, *Consumers Reports* has evaluated the drugs in this category based on their effectiveness, safety, and cost. This 2-page brief is a summary of an 18-page report you can access on the Internet at www.CRBestBuyDrugs.org. You can also learn about other drugs we've analyzed on this free Web site. Our independent evaluations are based on scientific reviews conducted by the Oregon Health and Science University-based Drug Effectiveness Review Project. Grants from the Engelberg Foundation and National Library of Medicine help fund *Consumer Reports Best Buy Drugs*.

DO YOU NEED A STATIN?

If your cholesterol is only marginally elevated and you're not at risk for heart disease, heart attack, or stroke, dietary and lifestyle changes may be enough to lower your "bad" (LDL, or Low Density Lipoprotein) cholesterol to a healthy level. So you might try that before taking a medicine. But if your LDL is too high and/or you are already at risk for heart disease and stroke (for example, if you smoke, have diabetes, or have coronary artery disease), your doctor is likely to prescribe a statin.

Latest advice on LDL cholesterol reduction					
Risk level and criteria*	Reduce LDL to:				
Low - No current heart disease - No or only one risk factor	- Below 160mg/dl - Below 130mg/dl is better				
Moderate - No current heart disease - Two risk factors	- Below 130mg/dl - Below 100mg/dl is better				
Moderate High - Two or more risk factors	- Below 130mg/dl - Below 100mg/dl is better				
High - Known heart disease - Diabetes - Multiple Risk Factors	- Below 100mg/dl - Below 70mg/dl is better				

* In addition to having an elevated LDL and/or low HDL, the most important risk factors for heart disease, heart attack and stroke are cigarette smoking and having diabetes or high blood pressure. Other risk factors include being overweight, getting little or no exercise; having elevated triglycerides or C-reactive protein levels, and having a family history of heart disease.

Our Recommendations

Statins are highly effective and generally safe medicines. In people at risk for heart disease or who have heart disease, they substantially lower the chances of a heart attack, stroke, and death.

The statins differ in their ability to reduce cholesterol and there is stronger evidence for some when it comes to reducing your risk of heart attack or death from heart disease or stroke. The statins also vary widely in cost – from about \$30 a month to \$170 a month. (See page 2)

Taking the evidence for effectiveness, safety, and cost into account, we have chosen four statins as *Consumer Reports Best Buy Drugs:*

- Generic lovastatin if you need to lower "bad" (LDL) cholesterol by less than 30%
- Generic pravastatin if you need to lower LDL cholesterol by less than 30%
- Generic simvastatin for some people who need less than 30% LDL reduction; for people who need 30% or greater LDL reduction and/or have heart disease or diabetes; and for some people who have had a heart attack or have acute coronary syndrome (chest pain and signs of coronary artery disease)
- Atorvastatin (Lipitor) for some people who have had a heart attack or have acute coronary syndrome; use for two years

Lovastatin is much less expensive than the other statins. Pravastatin and simvastatin have only recently become available as generics. Their cost will decline in the fall of 2006 and in early 2007. Lipitor is not available as a generic and is more expensive than the three generics.

Most people who need a statin should take the lowest dose that reduces their LDL cholesterol to an acceptable level. High doses of statins pose greater risk of muscle and liver problems. But some people – such as those who have had heart attacks – may need higher doses.

No matter what dose you take, if you have muscle aches and pains when taking a statin, contact your doctor immediately. Also, ask your doctor about splitting your statin pills. This can save you money.

This information was last updated in July 2006.

	Generic Name And Dose Per Day	Brand Name²	Average Monthly Cost ³	Average Expected LDL Reduction	Reduces the Risk of Heart Attack? ⁴	Mortality Reduction
Ī	Atorvastatin				Yes	Yes
Ţ	Atorvastatin 10mg	Lipitor	\$90	34-38%		
Ţ	Atorvastatin 20mg	Lipitor	\$129	42-46%		
Ţ	Atorvastatin 40mg	Lipitor	\$129	47-51%		
Y	Atorvastatin 80mg	Lipitor	\$128	46-54%		
	Ezetimibe/simvastatin				Yes⁵	Yes⁵
	Ezetimibe/simvastatin 10mg/10mg	Vytorin	\$105	45%		
	Ezetimibe/simvastatin 10mg/20mg	Vytorin	\$104	52%		
	Fluvastatin				Likely	Likely
	Fluvastatin 20mg	Lescol	\$77	22%		
	Fluvastatin 40mg	Lescol	\$75	25%		
	Lovastatin				Yes	Likely⁵
Ţ	Lovastatin 10mg	Generic	\$32	21%		
Ţ	Lovastatin 20mg	Generic	\$36	24-27%		
Ţ	Lovastatin 40mg	Generic	\$56	31%		
	Lovastatin 10mg	Mevacor	\$43	21%		
	Lovastatin 20mg	Mevacor	\$81	24-27%		
	Lovastatin 20mg longacting	Altoprev	\$99	30%	Yes ⁷	Likely ⁷
	Lovastatin 40mg longacting	Altoprev	\$108	36%		
Ţ	Pravastatin ⁸				Yes	Yes
	Pravastatin 10mg	Pravachol	\$120	18-25%		
	Pravastatin 20mg	Pravachol	\$114	23-29%		
	Pravastatin 40mg	Pravachol	\$168	26-34%		
	Rosuvastatin				Likely	Likely
	Rosuvastatin 10mg	Crestor	\$106	43-50%		
	Rosuvastatin 20mg	Crestor	\$105	52-55%		
Ţ	Simvastatin ⁸				Yes	Yes
	Simvastatin 10mg	Zocor	\$98	26-33%		
ĺ	Simvastatin 20mg	Zocor	\$169	30- 40%		
1	Simvastatin 40mg	Zocor	\$170	35-45%	Yes	

UNDERSTANDING GENERICS: A generic is a copy of a brand drug whose patent has expired. For example, in this table lovastatin is the generic version of the brand name drug Mevacor. As explained on page 1, generic pravastatin and sinvastatin only recently became available so we don't yet have the monthly costs for those two drugs. The prices given in this table are for the brand versions, Pravachol and Zocor. Generic drugs are less expensive. If you are prescribed a brand name drug that is available as a generic, ask your doctor or pharmacist why.

(1) Because of space limitations this table does not contain all dosage forms. For a full list, please see the full 18-page statin report at

- (1) Because of space infinite one does not contain an adding remained of a remain processing of a remained of the rem provided by Wolters Kluwer Health, Pharmaceutical Audit Suite
- (4) Nonfatal and fatal heart attack plus deaths attributed to heart disease.
- (5) The combination of these two drugs has not been proven but simvastatin has. The benefit is assumed for the combination.
- (6) Lovastatin has not been proven to reduce deaths, but the evidence strongly points in that direction.

(7) Based on the results for shorter-acting versions of the drugs.
(8) A generic version of pravastatin became available in April 2006. A generic version of simvastatin became available in June 2006. Future updates of our statin report and this brief will include the monthly costs for these medicines.