



**HMG-CoA REDUCTASE INHIBITORS**

Name	Initial Daily Dose	Dosage Range	Equivalent Doses	% LDL Reduction	Maximum LDL reduction @ max. daily dose <sup>†</sup>	Absolute Bioavailability/ Metabolism	Excretion	Available Strengths	Monthly dose & cost for 25% LDL reduction
Simvastatin <sup>‡</sup> (Zocor <sup>™</sup> )	20 mg	5-80 mg	20 mg	23-50	50% 9 with 80 mg	5%/ CYP3A4	13% (urine) 60% (feces)	5, 10, 20, 40, 80	20 mg @ 1 qd = \$88 40 mg @ ? qd = \$44
Pravastatin <sup>‡</sup> (Pravachol <sup>™</sup> )	40 mg	10-40 mg	40 mg	22-31	31% 9 with 40 mg	17%	20% (urine) 70% (feces)	10, 20, 40	40 mg @ 1 qd = \$85
Atorvastatin (Lipitor <sup>™</sup> )	10 mg	10-80 mg	10 mg	30-60	60% 9 with 80 mg	12%/ CYP3A4	<2% (urine)	10, 20, 40	10 mg @ 1 qd = \$45
Cerivastatin (Baycol <sup>™</sup> )	0.3 mg <sup>§</sup>	0.2-0.3 mg	0.3 mg	25-28	28% 9 with 0.3 mg	60%/ CYP3A4	24% (urine) 70% (feces)	0.2, 0.3	0.3 mg @ 1 qd = \$33
Fluvastatin (Lescol <sup>™</sup> )	20-40 mg	20-80 mg <sup>¥</sup>	80 mg	15-27	27% 9 with 80 mg	24%/ CYP2C9,weak	5% (urine) 90% (feces)	20, 40	40 mg @ 1 bid = \$62
Lovastatin <sup>‡</sup> (Mevacor <sup>™</sup> )	20 mg*	10-80* mg	40 mg	22-36	36% 9 with 80 mg	<5%/ CYP3A4	10% (urine) 83% (feces)	10, 20, 40	40 mg @ 1 qd = \$100

<sup>†</sup> These are expected LDL reductions - individual patients may experience different results.

<sup>§</sup> start with 0.2 mg if CrCl < 60 mL/min.

<sup>¥</sup> the 80 mg dose should be given as 40 mg bid.

\* give with food.

<sup>‡</sup> Only simvastatin, pravastatin, and lovastatin have demonstrated outcome evidence to reduce the risk of MI and risk of CHD mortality.

**All patients with CAD or DM should be treated with an HMG-CoA Agent to target LDL < 100 mg/dL.**

**Target LDL:** CHD or DM: < 100 mg/dL; No CHD and ≥ 2 risk factors: < 130 mg/dL; No CHD and < 2 risk factors: < 160 mg/dL.

**Monitoring:** perform fasting lipid profile and liver function tests before initiating therapy, at 6 and 12 weeks after initiation or after dose elevation, then every 6-12 months.

Discontinue drug if liver function test rise to 3 times upper limit of normal. Time to maximum effect is 4 weeks.

May cause photosensitivity; avoid prolonged exposure to the sun and other UV light; use sunscreens and wear protective clothing until tolerance is determined.

Anticoagulant effect of warfarin may be increased.

**Antihyperlipidemic Combination Therapy:** Bile acid sequestrants (Questran, Colestipol) decrease statin bioavailability by 50% if taken at the same time; take statin 1 hour before or 4 hours after bile acid sequestrant. Gemfibrozil, fenofibrate, and niacin in combination with statins may increase risk of myopathy; studies have been conducted with combination therapy; risk-benefit needs to be individualized; use lower statin dose in combination to decrease risk.

**Adverse Drug Reactions:** Mild transient elevations in liver enzymes have been reported with all agents (monitor as stated above). Myopathy, a rare but potentially serious reaction, can occur with any agent and should be considered in any patient with diffuse myalgias; risk is increased when statins are used in combination with azole antifungals, cyclosporine, gemfibrozil, erythromycin, or niacin; pravastatin appears to be safer in combination with these agents because it is not metabolized by the same cytochrome P450 isoenzyme.