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## Article

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# Different Effects of SLCO1B1 Polymorphism on the Pharmacokinetics of Atorvastatin and Rosuvastatin

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Thirty-two healthy volunteers with different SLCO1B1 genotypes ingested a 20 mg dose of atorvastatin and 10 mg dose of rosuvastatin with a washout period of 1 week. Subjects with the SLCO1B1 c.521CC genotype (n=4) had a 144% (P<0.001) or 61% (P=0.049) greater mean area under the plasma atorvastatin concentration–time curve from 0 to 48 h (AUC<sub>0–48h</sub>) than those with the c.521TT (n=16) or c.521TC (n=12) genotype, respectively. The AUC<sub>0–48h</sub> of 2-hydroxyatorvastatin was 100% greater in subjects with the c.521CC genotype than in those with the c.521TT genotype (P=0.018). Rosuvastatin AUC<sub>0–48h</sub> and peak plasma concentration (C<sub>max</sub>) were 65% (P=0.002) and 79% (P=0.003) higher in subjects with the c.521CC genotype than in those with the c.521TT genotype. These results indicate that, unexpectedly, SLCO1B1 polymorphism has a larger effect on the AUC of atorvastatin than on the more hydrophilic rosuvastatin.

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