

Diet-Induced Arteriosclerosis

Hunjadi et al. investigated whether [Matcha Green Tea](#) Powder modulates the [HDL](#) function and thereby influences the atherogenic process in an [animal model](#) with a strong influence on humans situation.

After a pretreatment phase based on a standard [diet](#), ten female NZW rabbits were fed a high-fat diet for 20 weeks. The treatment group was additionally administered 1% matcha during the whole experiment. Long-term matcha treatment led to lowered HDL cholesterol, impaired cholesterol transport manifested by reduced in vitro cholesterol efflux capacity, reduced CETP-mediated cholesterol ester (CE) transfer between HDL and triglyceride-rich particles, and reduced macrophage-specific in vivo transfer, where we observed increased absorption of cholesterol in the liver but a decreased secretion into bile. Pulse wave velocity, assessed by nuclear magnetic resonance, was increased in matcha-treated animals, and a similar trend was observed for atherosclerotic lesion formation.

Long-term matcha green tea treatment of hypercholesterolemic rabbits caused impaired reverse cholesterol transport and increased vascular stiffness, and susceptibility for atherosclerotic lesion development. ¹⁾

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Hunjadi M, Sieder C, Beierfuß A, Kremser C, Moriggl B, Welte R, Kastner C, **Mern DS**, Ritsch A. [Matcha Green Tea Powder does not Prevent Diet-Induced Arteriosclerosis](#) in New Zealand White Rabbits Due to Impaired Reverse Cholesterol Transport. Mol Nutr Food Res. 2021 Aug 14:e2100371. doi: 10.1002/mnfr.202100371. Epub ahead of print. PMID: 34391214.

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