



Antioxidants

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## Antioxidant Role of High-Density Lipoprotein

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The fact that the presence of high-density lipoprotein (HDL) in serum and tissue fluid can prevent oxidative damage was first discovered in the context of the lipid peroxidation of low-density lipoprotein (LDL), which is relevant to its participation in atherogenesis. Several HDL components were found to be involved in the anti-oxidative mechanism, including the strongly detergent structural protein apolipoprotein A1, which provides a safe environment for the release of lysophospholipids. Critically important in the metabolism of lipid peroxides before they could adduct to and damage proteins was, however, paraoxonase1 (PON1), almost exclusively located on HDL. PON1 activity and genetic isoforms were then reported to be associated with a wide range of diseases, particularly infectious, inflammatory and neoplastic, implicating HDL in their pathogenesis or in protective responses against them. This collection contains reviews and reports of this rapidly expanding field.

