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Antioxidant Role of High-Density Lipoprotein

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Message from the Guest Editor

In the last 25 years, evidence has accumulated that LDL, which has undergone oxidation or glucoxydation, is cytotoxic to endothelial cells, and once it has crossed the arterial endothelium, it can be rapidly taken up by monocyte macrophages and smooth muscle cells in the arterial subintima to form foam cells responsible for the initiation and propagation of atherosclerosis. During the same period, our views about HDL have undergone radical revision: evidence that its anti-atherogenic role is because it is critical for reverse cholesterol transport has proved insubstantial. Most excess cholesterol secreted by the liver is removed before cellular uptake by a process in which HDL is not rate-limiting. Attention continues to be directed towards HDL as an early acceptor of excess intracellular cholesterol, but at the same time, it has been widely reported that HDL can protect LDL and cell membranes against oxidative modification, which can contribute to numerous disease processes besides atheroma. This series of reviews and articles highlights the mechanisms and components contributing to the antioxidant role of HDL and the disease associations of HDL.



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Special Issue



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Message from the Editor-in-Chief

It has been recognized in medical sciences that in order to prevent adverse effects of "oxidative stress" a balance exists between prooxidants and antioxidants in living systems. Imbalances are found in a variety of diseases and chronic health situations. Our journal *Antioxidants* serves as an authoritative source of information on current topics of research in the area of oxidative stress and antioxidant defense systems. The future is bright for antioxidant research and since 2012, *Antioxidants* has become a key forum for researchers to bring their findings to the forefront.

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