



# Mitochondria As Potential Targets of Flavonoids: Focus on Adipocytes and Endothelial Cells

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Auteur	Duluc, Lucie [1], Soleti, Raffaella [2], Clere, Nicolas [3], Andriantsitohaina, Ramaroson [4], Simard, Gilles [5]
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Mots-clés	Adipocyte [6], Apoptosis [7], Cardiovascular [8], Endothelial [9], Flavonoids [10], mitochondria [11], mitochondrial [12], Natural [13], Obesity [14], Ros [15]  Obesity is a major public health problem, resulting from an excess of energy storage and/or a default of energy expenditure leading to the increased occurrence of cardiovascular risk factors that favour the development of vascular complications. As a consequence, many studies are interested to find novel therapeutic chemical including flavonoids that appear to be promising natural compounds to treat obesity and its complications. Several in vitro studies addressed the mechanisms involved that might explain their beneficial effects, on adipocytes and endothelial cells, two cell types that play major role in obesity and its vascular complications. Besides the well-described antioxidant properties of flavonoids, at least a part of their beneficial effects on these cell types might be explained by their action on the regulation of mitochondrial function. In this review, we will therefore focus on the pathophysiological role of mitochondria in regulating endothelial and adipocyte functions. In addition, we will present some of the more promising flavonoids, important in human diet, including flavanols, flavonols, isoflavones, anthocyanins, flavanones and flavones; and their potential effects to improve endothelial or adipocyte functions via the mitochondria.
Résumé en anglais	
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