

## The effects of baicalein and baicalin on mitochondrial function and dynamics: A review.

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### Abstract

Mitochondria play an essential role in cell survival by providing energy, calcium buffering, and regulating apoptosis. A growing body of evidence shows that mitochondrial dysfunction and its consequences, including impairment of the mitochondrial respiratory chain, excessive generation of reactive oxygen species, and excitotoxicity, play a pivotal role in the pathogenesis of different diseases such as neurodegenerative diseases, neuropsychiatric disorders, and cancer. The therapeutical role of flavonoids on these diseases is gaining increasing acceptance. Numerous studies on experimental models have revealed the favorable role of flavonoids on mitochondrial function and structure. This review highlights the promising role of baicalin and its aglycone form, baicalein, on mitochondrial function and structure with a focus on its therapeutic effects. We also discuss their chemistry, sources and bioavailability.

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