



## Oxidative stress and free radical damage in neurology /

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Monografía

The role of free radicals and oxidative stress in neurological disorders has only recently been recognized, leaving clinical neurologists to seek in vain for information on the subject even in major textbooks. What published information there is may consist of brief reminders of the possible association of superoxidase dismutase with familial amyotrophic lateral sclerosis and nitrous oxide with migraine. With luck they may also find information on the purported role of free radicals in the pathogenesis of traumatic brain injury. Oxidative Stress and Free Radical Damage in Neurology sets the record straight, focusing on clinical and research issues regarding the interplay of free radicals and the human nervous system. Crucially, the chapters cover numerous antioxidants and their possible therapeutic role in neurological disorders. Key illnesses such as epilepsy, multiple sclerosis and Parkinson's are analyzed, and chapters also examine more general issues such as the link between free radicals and inflammation of the central nervous system. Clinicians and laboratory researchers alike will find that this book augments their understanding not only of the widespread involvement of free radicals in the central nervous system but also of some uncertainties surrounding whether free radical damage in neurology plays a primary or secondary role

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**Contenido:** 1. The role of free radicals in the nervous system -- 2. Why is the nervous tissue vulnerable to oxidative stress? -- 3. Free radicals in perinatal hypoxic-ischemic encephalopathy: A fine balance -- 4. Oxidative Stress in Neonatal Hypoxic-Ischemic Encephalopathy -- 5. Oxidative stress in multiple sclerosis pathology and therapeutic potential of Nrf2 activation -- 6. Free Radicals in Central Nervous System -- 7. The Role of Reactive Oxygen Species in the Pathogenesis of Traumatic Brain Injury -- 8. Distinct roles of cyclooxygenases-1 and -2 in

inflammatory and excitotoxic brain injury -- 9 . Stroke and Oxidative Stress -- 10. Free Radicals in Epilepsy -- 11. Neurological disorders associated with iron misdistribution: The therapeutic potential of siderophores -- 12. Oxidative stress in Parkinson's disease -- 13. Tetrahydrobiopterin Deficiency -- 14. Radicals Attack the Ear .The Toll: A Loss of Hearing -- 15. Mitochondrial Encephalomyopathies -- 16. Potential role of oxidative damage in neurological manifestations of acute intermittent porphyria. Pischik E and Kauppinen R.

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