

# Abstract

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## **Current concepts in the pathophysiology of fibromyalgia: the potential role of oxidative stress and nitric oxide.**

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**BACKGROUND:** Fibromyalgia (FM) is a common chronic pain syndrome with an unknown etiology. Recent years added new information to our understanding of FM pathophysiology. Researches on genetics, biogenic amines, neurotransmitters, hypothalamic-pituitary-adrenal axis hormones, oxidative stress, and mechanisms of pain modulation, central sensitization, and autonomic functions in FM revealed various abnormalities indicating that multiple factors and mechanisms are involved in the pathogenesis of FM.

**DISCUSSION:** Oxidative stress and nitric oxide may play an important role in FM pathophysiology, however it is still not clear whether oxidative stress abnormalities documented in FM are the cause or the effect. This should encourage further researches evaluating the potential role of oxidative stress and nitric oxide in the pathophysiology of FM and the efficacy of antioxidant treatments (omega-3 and -6 fatty acids, vitamins and others) in double blind and placebo controlled trials.

**CONCLUSION:** These future researches will enhance our understanding of the complex pathophysiology of this disorder.

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