

TAURINE SUPPLEMENTATION IN RHEUMATIC DISEASES: A REVIEW

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Rheumatic diseases are characterized by elevated inflammation and oxidative stress, leading to the investigation of antioxidant compounds for treating these conditions, yielding conflicting results [5]. Taurine, identified as a potential antioxidant, anti-inflammatory, and anti-apoptotic agent, was isolated in 1827 from ox bile (*Bos taurus*) [4]. While taurine is considered a conditionally essential amino acid in most mammals, including humans, rodents, and select primates, it is sourced from endogenous biosyntheses and dietary intakes, such as meat, seafood, and human milk [3]. Taurine, commonly used as an energy-enhancing beverage, has been demonstrated to enhance athletic performance [2]. Recent systematic reviews have highlighted taurine's ability to ameliorate rheumatoid arthritis (RA) in animal models. A comprehensive analysis of 18 studies on taurine in RA models and in vivo treatment demonstrated its efficacy in controlling RA through mechanisms that include inflammation suppression, oxidative stress reduction, and apoptosis induction [1].

An extensive literature search in PubMed, Scielo, and LILACS was conducted without any language restriction until July 2024, excluding review articles and in vivo and in vitro studies [5].

Unfortunately, no article was retrieved for this review after the comprehensive database search [5].

In conclusion, no study on taurine supplementation in patients with rheumatic diseases is available in the medical literature. However, experimental works demonstrate a potential benefit of this amino acid in RA [5]. Future studies on taurine in human RA are expected.

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