

THE EFFECT OF OMEGA-3 FATTY ACID SUPPLEMENTATION ON RHEUMATOID ARTHRITIS.

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Rheumatoid Arthritis (RA) is a chronic inflammatory disorder characterized by specific inflammation in the lining of the joints. Over time, RA will lead to a degeneration of the joint tissue, resulting in chronic pain and loss of function in the joints, often with severe disability. RA has no cure. However, prescription drugs are available to manage the pain and reduce inflammation. These drugs often have negative side effects, which may affect compliance. Omega-3 fatty acids are essential fatty acids which, through a shared metabolic pathway, compete with the pro-inflammatory substrates formed from omega-6 fatty acids. Over a period of time diets high in omega-3 fatty acids, when compared to diets high in omega-6 fatty acids, may reduce the state of chronic inflammation by producing an anti-inflammatory group of mediators. This reduction in inflammation could result in improved function and pain control without the negative side effects of commonly prescribed drugs. Patients who have been diagnosed with rheumatoid arthritis demonstrated an improvement in joint health with a supplement of 2.5g-7g/day of omega-3 fatty acids, and a reduction in omega-6 fatty acid intake. The best results of improved joint movement and reduction in tenderness incorporate omega-3 supplements and continued but decreased use of drug therapies. This project will present the recent data on the therapeutic effect of omega-3 fatty acid supplementation, and the physiological mechanisms related to this therapeutic effect.