

## **A Fatty Acid Ester Complex (CMC) Improves Quality of Life Outcomes in Osteoarthritis (OA) Patients**

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Therapy for OA is mostly palliative and based on the use of analgesic or anti-inflammatory agents, e.g., NSAIDs. A need remains for therapies that will be safe, efficacious, and will modify the course of OA. Many studies show that fatty acids have various effects on immune and inflammatory responses. These may induce changes in membrane fluidity, antibody and cytokine production, adhesion molecule expression, and signal transduction pathways; suppress leukocyte function; trigger apoptosis; and, like NSAIDs, reduce production of prostaglandins and leukotrienes. As part of a double-blind, placebo-controlled trial, we examined the impact of 60d oral administration of a novel blend of fatty acid esters (CMC) on OA pain and mobility. Patients (n=100) with OA (chronicity avg of 9.2 yrs), ages 37 to 77 yrs, were randomized to receive daily capsules containing either CMC or vegetable oil placebo (P). A total of 137 joints were affected with OA. The MACTAR conventional questionnaire index was used for multi-joint, functional assessment while Lequesne's Disease Severity Index (LDSI) identified knee pain, stiffness, and function. Student's t test was used to assess responsiveness. After 30d, the CMC group (avg pre- 15.6; post- 10.4) experienced an improvement ( $p < 0.005$ ) in the MACTAR index compared to P (pre- 15.3; post- 13.1). The CMC group showed a reduction ( $p < 0.005$ ) in the LDSI (pre- 15.6; post- 10.6) compared to P (pre- 15.8; post- 13.9). The CMC subjects also reported significant improvements in flat ground walking and traversing up and down stairs. Benefits remained after 60d on CMC. It was also reported that significant and positive benefit occurred with 97% of the CMC group.