

EVALUATION OF THE EFFICACY OF THE
JOINT SUPPLEMENTS GLUCOSAMINE &
CHONDROITIN IN THE TREATMENT
OF OSTEOARTHRITIS OF THE
KNEE JOINT

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ABSTRACT

Osteoarthritis (OA) of the knee is a major source of disability worldwide with rising prevalence. Medical management of OA involves the use of analgesics and non steroidal anti inflammatory drugs (NSAIDS). These drugs only provide symptomatic relief and their long term usage could result in numerous toxic side effects and vital organ damage. They do not play any role to alter or slow down the disease process. Glucosamine and Chondroitin are substances that naturally occur in the body. They are key components of cartilage structure and are commercially available as "joint supplements". These preparations are widely touted in the lay press as remedies for OA minus the side effects of conventional drugs. However uncertainty about their efficacy exists among the medical community. The objective of this review is to critically evaluate the efficacy of Glucosamine and Chondroitin, both as single agents or in combination for the treatment of OA of the knee. Data search was done using various electronic data bases to select studies which were reviewed within the context of evidence based medicine. Only randomized and controlled double blind trials on patients with OA of the knee were selected. These trials compared Glucosamine, Chondroitin or their combination with placebo head to head. Results from the trials reviewed as regards the effectiveness of these two preparations were conflicting. Trials that reported large effects on joint pain and minimal joint space narrowing were often hampered by poor study quality and small sample sizes, whereas large methodologically sound trials found only small or no effects at all. However results from a few small studies focusing on Glucosamine and Chondroitin being used as topical creams for local application over the knee joint were more promising and showed consistent positive effects. Currently these joint supplements are classified as '**nutriceuticals**' and thus do not fall under purview of the FDA. It is thought that in the interest of the large consumer base of these popular preparations, Glucosamine and Chondroitin be brought into the fold of the FDA for better product quality control, supervision and monitoring of R & D and tighter control and direction of future trials with the hope of a more consistent outcome.