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## **Eggshell membrane in the treatment of pain and stiffness from osteoarthritis of the knee: a randomized, multicenter, double-blind, placebo-controlled clinical study.**

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### **Abstract**

Natural Eggshell Membrane (NEM(R)) is a new novel dietary supplement that contains naturally occurring glycosaminoglycans and proteins essential for maintaining healthy articular cartilage and the surrounding synovium. The randomized, multicenter, double-blind, placebo-controlled Osteoarthritis Pain Treatment Incorporating NEM(R) clinical study was conducted to evaluate the efficacy and safety of NEM(R) as a treatment for pain and stiffness associated with osteoarthritis of the knee. Sixty-seven patients were randomly assigned to receive either oral NEM(R) 500 mg (n = 34) or placebo (n = 33) daily for 8 weeks. The primary endpoint was the change in overall Western Ontario and McMaster Universities (WOMAC) Osteoarthritis Index as well as pain, stiffness, and function WOMAC subscales measured at 10, 30, and 60 days. The clinical assessment was performed on the intent-to-treat population. Supplementation with NEM(R) produced an absolute rate of response that was statistically significant (up to 26.6%) versus placebo at all time points for both pain and stiffness, but was not significantly improved for function and overall WOMAC scores, although trending toward improvement. Rapid responses were seen for mean pain subscores (15.9% reduction, P = 0.036) and mean stiffness subscores (12.8% reduction, P = 0.024) occurring after only 10 days of supplementation. There were no serious adverse events reported during the study and the treatment was reported to be well tolerated by study participants. Natural Eggshell Membrane (NEM(R)) is an effective and safe option for the treatment of pain and stiffness associated with knee osteoarthritis. Supplementation with NEM(R), 500 mg taken once daily, significantly reduced both joint pain and stiffness compared to placebo at 10, 30, and 60 days.