

# Hyaluronsäuren lindern Schmerzen – Synvisc® lindert Schmerzen und schützt den Knorpel

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## Effects of Hylan G-F 20 supplementation on cartilage preservation detected by magnetic resonance imaging in osteoarthritis of the knee: a two-year single-blind clinical trial

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**BACKGROUND:** Although viscosupplementation is an effective symptomatic treatment for knee osteoarthritis (OA), the effect of longer term administration on articular cartilage has not been fully explored. We examined the effect of viscosupplementation with Hylan G-F 20 on knee cartilage over 2 years in patients with knee OA.

**METHODS:** In this prospective, single-blind, parallel control group pilot study, 78 patients with symptomatic knee OA (Kellgren-Lawrence grade II and III) were assigned to either intervention group (n = 39 receiving 4 courses of 3 × 2.0 ml of intra-articular Hylan G-F 20 injections at 6 month intervals) or control group (n = 39 receiving usual care for knee OA without injections). Magnetic resonance imaging of the study knee was performed at baseline, 12 and 24 months. Cartilage volume and defects were assessed using validated methods.

**RESULTS:** Fifty-five subjects (71%) completed 24 month follow up. Over 24 months, the intervention group had a reduced annual percentage rate of medial and lateral tibial cartilage volume loss (mean ± SD, -0.3 ± 2.7% and -1.4 ± 4.3%) compared with the control group (2.3 ± 2.6% and 1.4 ± 2.6%, P = 0.001 and 0.005 for difference, respectively). The intervention group also showed reduced cartilage defect score increment in the medial tibiofemoral compartment (0.1 ± 1.3) compared with the control group (0.8 ± 1.5, P = 0.05).

**CONCLUSIONS:** Six monthly intra-articular injections of Hylan G-F 20 administered to patients with symptomatic knee OA have a beneficial effect on knee cartilage preservation measured by both cartilage volume and cartilage defects. Hylan G-F 20 warrants further evaluation in larger clinical trials as a possible disease-modifying agent in the treatment of knee OA.

