

# THE JOINT PRESERVATION SPECIALISTS

#savethejoint™

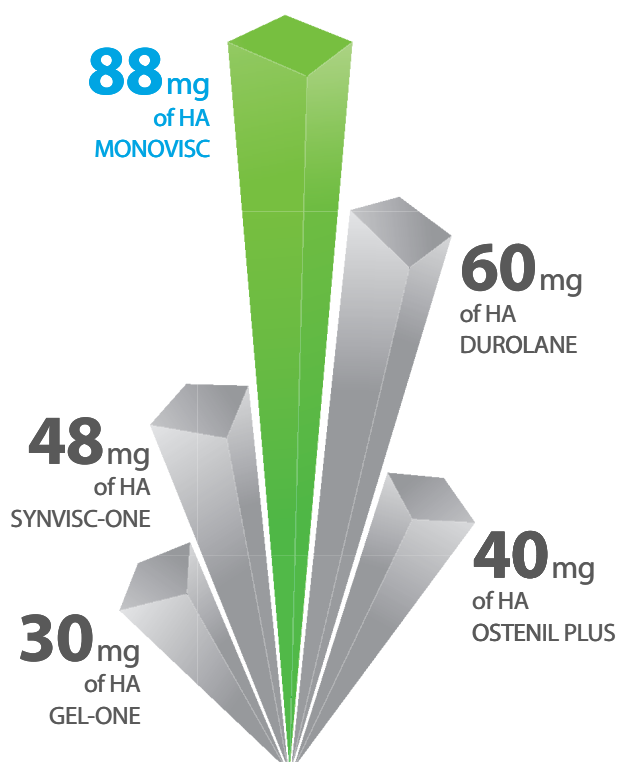
**MONOVISC®**



## MONOVISC®

is a single high dose viscosupplement injection approved for the treatment of OA in all Synovial Joints<sup>1</sup>

### MONOVISC DELIVERS A HIGHER DOSE OF HA<sup>2</sup>



### LIGHTLY CROSS-LINKED

MONOVISC is a sodium hyaluronate injection that is lightly cross-linked to increase residence time in the joint.<sup>1,3</sup>

### NON-AVIAN HA

MONOVISC is manufactured from ultra pure, high molecular weight sodium hyaluronate produced by bacterial fermentation.<sup>1</sup>

### #1 U.S. VISCOSUPPLEMENTS

MONOVISC is FDA approved and as a viscosupplement franchise, MONOVISC & ORTHOVISC are the most prescribed in the United States.<sup>4</sup>

JOINT OPERATIONS - THE JOINT PRESERVATION SPECIALISTS

T: 01793 575050 F: 01793 575040 E: [service@jointoperations.co.uk](mailto:service@jointoperations.co.uk)

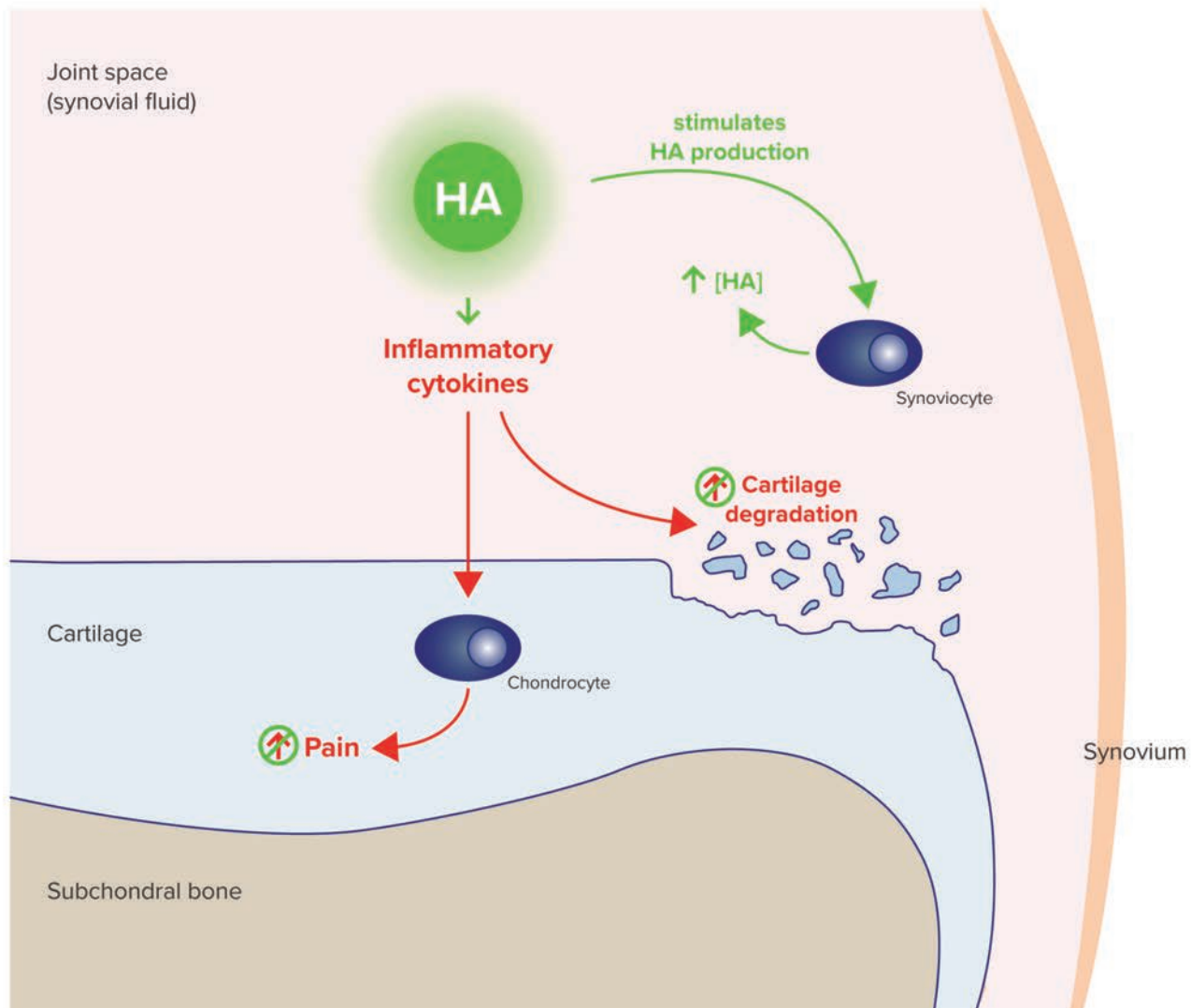
[www.jointoperations.co.uk](http://www.jointoperations.co.uk)

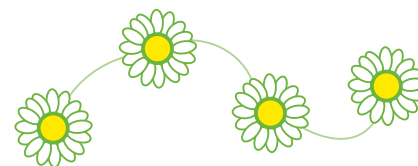


# THE JOINT PRESERVATION SPECIALISTS

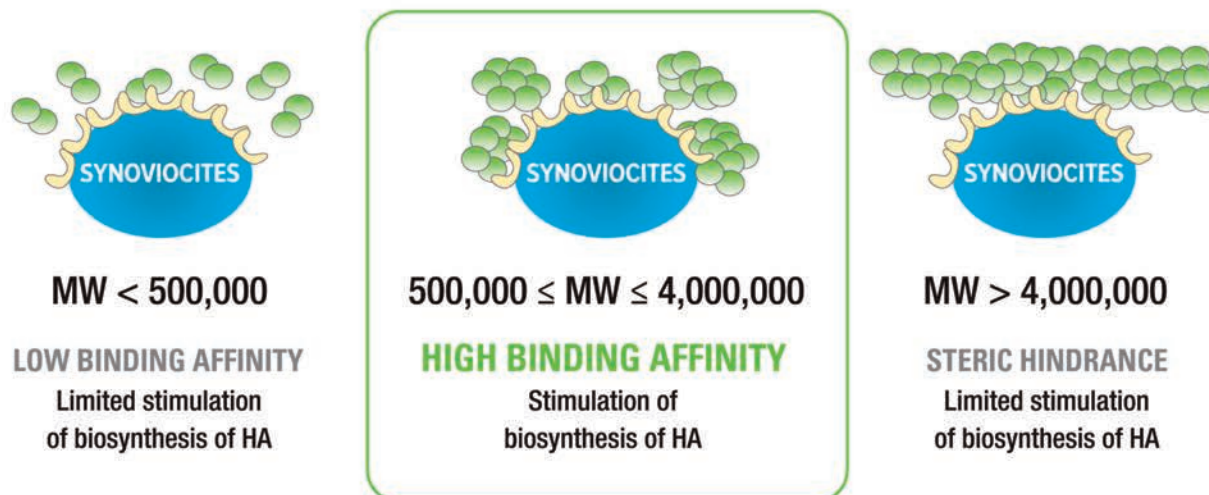
## Hyaluronic acid (HA) reduces pain and inflammation in the joint<sup>5</sup>

- >> Harmful inflammatory cytokines produce an inflammatory response which causes pain and is destructive to the joint<sup>5</sup>
- >> HA inhibits inflammatory cytokines, which reduces pain and decreases cartilage degradation<sup>5</sup>
- >> HA stimulates the production of endogenous HA and has the potential to protect and restore the chondral matrix<sup>5</sup>



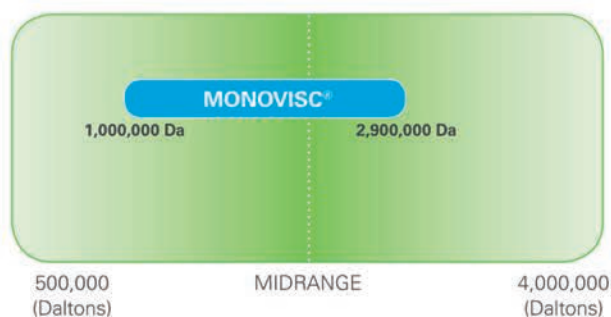


Preclinical studies suggest that strong binding affinity of hyaluronic acid (HA) stimulates endogenous HA production<sup>6</sup>



Model of hyaluronic acid binding to receptors on the surface of synovial fibroblasts, HA, hyaluronic acid; MW, molecular weight (Adapted from Smith and Ghosh)<sup>6</sup>

**MOLECULAR WEIGHT RANGE FOR STIMULATING ENDOGENOUS BIOSYNTHESIS OF HA<sup>6</sup>**



>> Low MW (MW < 500,000 Da) molecules of HA appear to bind only weakly to surface receptors, resulting in limited stimulation of endogenous HA biosynthesis by osteoarthritic synoviocyte cells<sup>6</sup>

>> Data suggests that high MW (MW > 4,000,000 Da) molecules of HA cannot bind strongly to synoviocyte surface receptors due to steric hindrance, limiting their ability to stimulate HA biosynthesis<sup>6</sup>

>> Data suggests that HA molecules with MW between 500,000 Da – 4,000,000 Da bind strongly to synoviocyte surface receptors, stimulating endogenous HA biosynthesis<sup>6</sup>

# THE JOINT PRESERVATION SPECIALISTS

Clinically proven long lasting pain relief through 6 months<sup>7,9</sup>

- >> MONOVISC delivers a **65% improvement** in WOMAC pain at Week 26 relative to baseline ( $p = 0.0352$ )<sup>7</sup>
- >> MONOVISC delivers an **85% responder rate** in the OMERACT-OARSI Responder Index through 26 Weeks<sup>8</sup>
- >> MONOVISC patients experienced a clinically meaningful reduction in OA knee pain within 2 weeks of their injection<sup>\*\*9</sup>



\*Study design: The referenced clinical study was a randomized, double-blind, saline-controlled, three-arm, multicenter clinical trial. A total of 368 patients with knee osteoarthritis (KL grades I-III) were treated (150 received MONOVISC).<sup>7</sup>

\*\*Study design: The referenced clinical study was a randomized, double-blind, saline-controlled, multicenter clinical trial. A total of 369 patients with knee osteoarthritis (KL grades II-III) were treated (184 received MONOVISC).<sup>9</sup>



#savethejoint™



**MONOVISC**®

MONOVISC® is a registered trademark of Anika Therapeutics, Inc., Bedford, MA 01730 U.S.A.

#### REFERENCES

1. Monovisc Instructions for use. 2. Instructions for use for Monovisc, Durolane, Synvisc-One, Gel-One, Ostenil Plus. 3. Clinical Efficacy and Safety of MONOVISC™: A lightly cross-linked highly concentrated hyaluronan specially formulated for single injection in osteoarthritis. White Paper Study conducted by Michael J. Daley, PhD. 2013 4. IQVIA US Prescription Data Accessed April 2018 5. Nicholls M.A., et. Al. The Disease-Modifying Effects of Hyaluronan in the Osteoarthritic Disease State. Clin Med Insights Arthritis Musculoskelet Disord. 2017; 10:1179544117723611. 6. Smith MM, Ghosh P. The synthesis of hyaluronic acid by human synovial fibroblasts is influenced by the nature of the hyaluronate in the extracellular environment. Rheumatol Int. 1987; 7(3):113-22. 7. Hangody L, Szody R, Lukasik P, et al. Cartilage 2017 May; doi: 10.1177/1947603517703732. 8. CINGAL 13-01, a randomized, double-blind, placebo-controlled, active comparator Phase 3 study 9. Petterson SC, Plancher KD. Knee Surg Sports Traumatol Arthrosc (2018). <https://doi.org/10.1007/s00167-018-5114-0>

For further information on adverse reactions, precautions and contraindications please refer to the full prescribing information.

JOINT OPERATIONS - THE JOINT PRESERVATION SPECIALISTS

T: 01793 575050 F: 01793 575040 E: [service@jointoperations.co.uk](mailto:service@jointoperations.co.uk)

[www.jointoperations.co.uk](http://www.jointoperations.co.uk)

