

KD Intra-Articular® Gel

Viscosupplementation Solution for Orthopaedics

KD
KEEP ON
DANCING!



When movement becomes a challenge

What goes wrong?



The human body is a highly complex and sensitive ensemble that works in its own rhythm. This finely tuned ensemble enables us to enjoy our lives and achieve our goals. Being flexible, agile, and mobile is essential. The obstruction of a part of the musculoskeletal system can make this significantly more challenging and become a handicap for the natural flow of life.

Osteoarthritis is the most common cause of disability in adults. More than 300 million cases of knee or hip osteoarthritis were reported worldwide in 2017. The reasons are various and always case dependent.

Once the cartilage layer has been damaged, the disease slowly brings us out of step and not only while dancing. The most common impact on human body is the cartilage tissue degeneration, which results in pain, movement restrictions and joint stiffness.



Back to active life with Hyaluronic Acid

Improve your mobility and well-being

Cartilage degradation is a consequence, not an original reason! The disease begins with decreasing of the quality of the joint fluid. Synovia is the viscous fluid found in the cartilage cavities. It is a natural part of the joint that helps to lubricate and cushion your joints and keeps them working smoothly.

The synovia contains hyaluronic acid, which is responsible for its viscoelastic properties and is an important player in inflammation inhibiting pathways. The decrease of concentration and quality of the hyaluronic acid in the diseased joints results in reduced functionality and pain. For this reason, intra-articular supplementation with hyaluronic acid is an auspicious approach to pain-free mobility.

KD Intra-Articular® Gel

Kinetic Dynamics of your movement

KD Intra-Articular® Gel is a high-quality viscoelastic gel, developed, manufactured, and sterilized with steam according to the high international manufacturing standards. It contains the required hyaluronic acid with the well-targeted molecular weight. Its integrity and quality are maintained by the double sterile barrier system. Due to the high purity, biological and non-animal origin of the components, our product does not have any known immunogenic or pathogenic potential. KD Intra-Articular® Gel is highly biocompatible and resorbable.



Your benefits with KD

As manufacturer ALBOMED is part of its products

Quality-oriented philosophy. As a German company with more than 25 years experience in manufacturing of viscoelastic liquids, ALBOMED fulfils the challenging requirements of the European market and provides its customers with products of excellent and certified quality.

Authentic business development strategy

based on fairness and competence.

ALBOMED cares

Our business partners get comprehensive regulatory, marketing and expert support. Customer feedback affects the product development.

Established international logistic pathways

Reliable delivery schedules for shipments all over the world.

Implemented post-market clinical follow-up strategy

for gathering of clinical evidence data, which includes investigations on clinical performance. Please see clinical data on the charts.

The simple handling

makes the application uncomplicated and fast, reduces the risk of infection and makes the surgery to a routine procedure.

Wide product range

for the following synovial joints: knee, hip, ankle, shoulder, elbow and hand. One partner, one solution for various indications and applications.

Well-targeted molecular weight

Pain relief, joint stiffness improvement and functionality increase with expected effect duration of 6 months after the treatment. Over 75% of patients experience a positive symptoms relief.

Anti-inflammatory effect

combined with chondroprotection and induction of endogenous production of hyaluronic acid leads to delay of total knee replacement.

Biofermented origin

Biocompatibility and resorbability without any known immunogenic or pathogenic potential.

The actual specifications

measured at the end of the production cycle. Recording of the key product parameters after sterilization ensures the accuracy of the values.

Ultra One

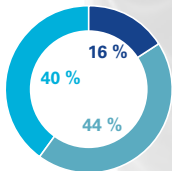
with the highest dosage (120 mg in one syringe) on the market.

Impressive clinical performance

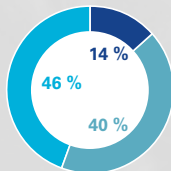
Pain, function and stiffness

NAPLES PERFORMANCE OBSERVATION (51 participants, 6 months follow-up)

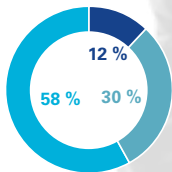
VAS PAIN IMPROVEMENT



WOMAC PAIN IMPROVEMENT

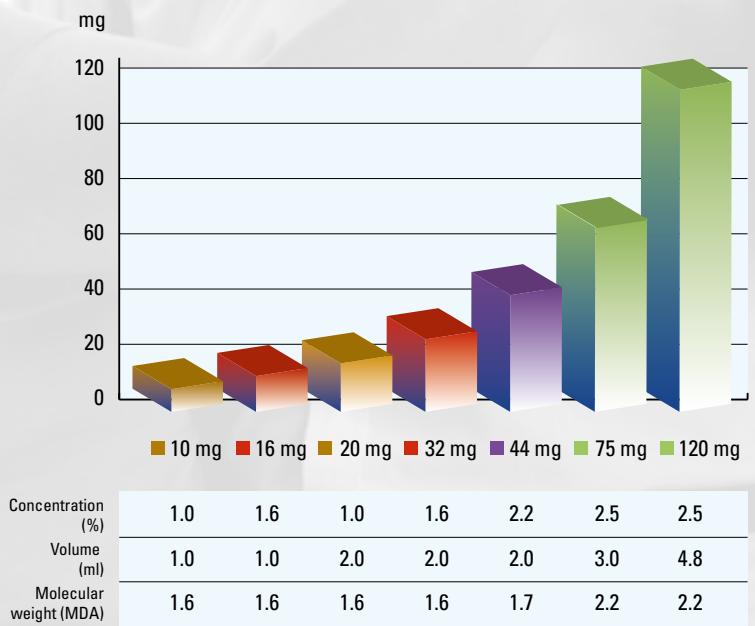


WOMAC STIFFNESS IMPROVEMENT



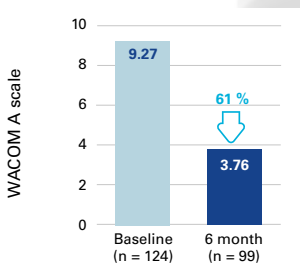
■ no
■ slight
■ important

CONCENTRATION & VOLUME

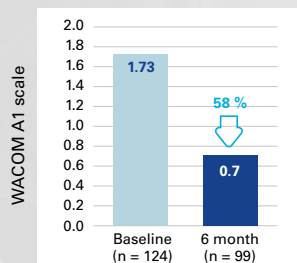


NO-DOLOR MULTICENTER STUDY (Interim results for 99 participants, 6 months follow-up)

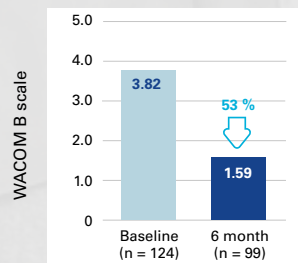
61% JOINT PAIN REDUCTION



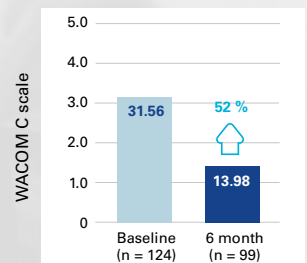
58% PAIN REDUCTION DURING MOVEMENT



53% STIFFNESS REDUCTION



52% INCREASE OF PHYSICAL FUNCTION



Wilcoxon test: $p < 0.001$ versus baseline

At 6 months: 87% of the patients were very satisfied or satisfied with the treatment
90% of the patients felt better during the treatment
57% reduction of analgesics

KD KEEP ON DANCING!

REFERENCES

1. Epidemiological science: Global, regional and national burden of osteoarthritis 1990-2017: a systematic analysis of the Global Burden of Disease Study 2017, *Annals of the Rheumatic Diseases* (2020)
2. Hunter DJ, Bierma-Zeinstra S: *Osteoarthritis* (2019)
3. Reid MC: Viscosupplementation for osteoarthritis: a primer for primary care physicians (2013)
4. Roque V, Agre M, Barroso J: Managing knee osteoarthritis: efficacy of hyaluronic acid injections (2013)
5. Arrich J, Piribauer F, Mad P: Intra-articular hyaluronic acid for the treatment of osteoarthritis of the knee: systematic review and meta-analysis (2005)
6. Murphy L et al.: Lifetime risk of symptomatic knee osteoarthritis (2008)
7. McArthur BA et al.: Long term safety, efficacy, and patient acceptability of hyaluronic acid injection in patients with painful osteoarthritis of the knee (2012)
8. Theiler R, Brühlmann P: Overall tolerability and analgesic activity of intra-articular sodium hyaluronate in the treatment of knee osteoarthritis (2005)
9. Berenbaum F et al.: A randomised, double-blind, controlled trial comparing two intra-articular hyaluronic acid preparations differing by their molecular weight in symptomatic knee osteoarthritis (2012)
10. Iannitti T et al.: Intra-articular injections for the treatment of osteoarthritis: focus on the clinical use of hyaluronic acid (2011)
11. Murphy L et al.: One in four people may develop symptomatic hip osteoarthritis in his or her lifetime (2010)
12. Clegg TE et al.: Viscosupplementation with hyaluronic acid in the treatment for cartilage lesions: a review of current evidence and future directions (2012)
13. Foti C et al.: A prospective observational study of the clinical efficacy and safety of intra-articular sodium hyaluronate in synovial joints with osteoarthritis (2011)
14. Bellamy N et al.: Viscosupplementation for the treatment of osteoarthritis of the knee (2006)
15. Hatoum HT et al.: Cost-effectiveness analysis of intra-articular injections of a high molecular weight bioengineered hyaluronic acid for the treatment of osteoarthritis knee pain (2014)
16. Wang Y et al.: Nutrition and degeneration of articular cartilage (2013)
17. Altman R et al.: Anti-Inflammatory Effects of Intra-Articular Hyaluronic Acid: A Systematic Review (2019)
18. Strauss E et al.: The efficacy of intra-articular hyaluronan injection after the microfracture technique for the treatment of articular cartilage lesions (2009)
19. Chang KV et al.: Effectiveness of intra-articular hyaluronic acid for ankle osteoarthritis treatment: a systematic review and meta-analysis (2013)
20. ALBOMED: Benefit-Risk Assessment of KD Intra-Articular® Gel, rev 09/2020 (2020)

KD Product Line

Specification	1.0 %	1.0 %	1.6 %	1.6 %	2.2 %	2.5 %	2.5 %
Sodium hyaluronate	10 mg	20 mg	16 mg	32 mg	44 mg	75 mg	120 mg
Molecular weight* (MDa)	1.6	1.6	1.6	1.6	1.7	2.2	2.2
Viscosity* (mPas)	25 000	25 000	50 000	50 000	300 000	500 000	500 000
Osmolality (mOsm/kg)	270-400	270-400	270-400	270-400	270-400	270-400	270-400
Storage	2-25 °C	2-25 °C	2-25 °C	2-25 °C	2-25 °C	2-25 °C	2-25 °C
pH	6.8-7.4	6.8-7.4	6.8-7.4	6.8-7.4	6.8-7.4	6.8-7.4	6.8-7.4
Volume (ml)	1.0	2.0	1.0	2.0	2.0	3.0	4.8
Shelf life (months)	42	42	42	42	42	42	42

*mean value after steam sterilization

