

Gel-One® Cross-Linked Hyaluronate

Effective Pain Relief

Gel-One® is a 100% cross-linked, high molecular weight gel used to treat mild to moderate Osteoarthritis of the knee. Gel-One provides **increased product durability, cushioning** and **resistance to diffusion**.¹

Durability and Viscoelasticity

The structure of Gel-One Cross-Linked Hyaluronate (HA) demonstrates characteristics that allow it to change its structure when an external force is added, and to return to its original structure when the external force is removed.

In laboratory studies, Gel-One has demonstrated **greater viscoelasticity** (Figure 1) than Synvisc/Synvisc-One®, Monovisc® and non-crosslinked HA, leading to **better shock absorption and product durability**.¹

Greater viscoelasticity results in a proven **91-day joint residency time**¹ and offers **26 weeks of pain relief** to patients.²

Cushioning

HA's elastic property in healthy synovial fluid protects cartilage by acting as a shock absorber and providing **cushioning**, when the joint is exposed to an axial force such as jumping.³

In a laboratory study, Gel-One produced a greater counter force than Synvisc/Synvisc-One and the non-cross-linked HA, indicating that **Gel-One compressed less** than the other HA materials (Figure 2).¹

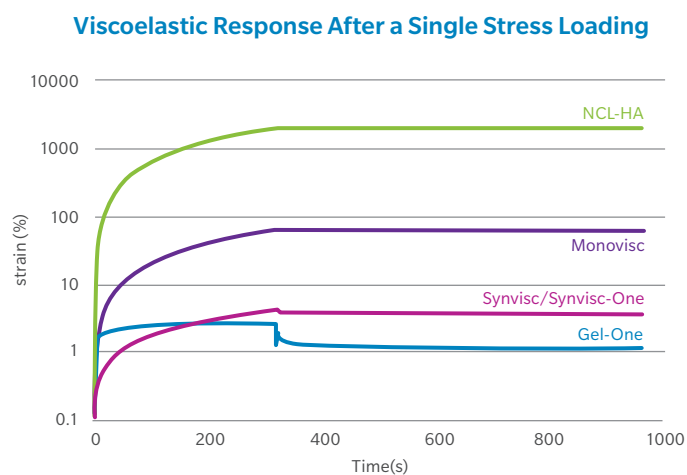


Figure 1

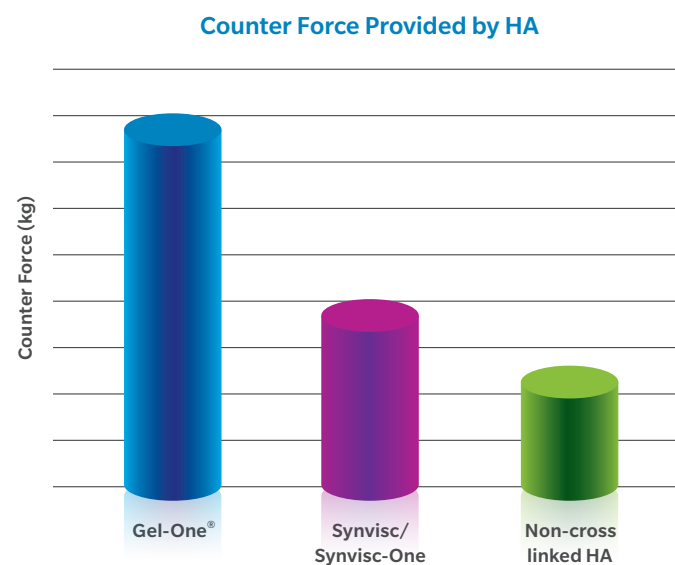


Figure 2: Counter force performance of Gel-One, Synvisc/Synvisc-One, and non-cross linked HA

Resistance to Diffusion

HA products can have different chemical structures which may impact its ability to diffuse through a membrane.

In a laboratory study, an in vitro mesh bag test was conducted to observe how long different HA products remained in the mesh bag over an extended period of time. **Gel-One did not flow outside of the mesh bag**, as the structure is able to incorporate fluid from its surrounding environment, increasing the total fluid volume. Conversely, the less cross-linked formulations of HA along with their fluid carriers diffused out of the mesh bag (Figure 3).^{1*}

*In this experiment the mesh bag represents the joint cavity

References

1. Data on file at Seikagaku Corporation.
Laboratory testing not necessarily indicative of clinical results.
2. Strand, V. *et al.* A multicenter, randomized controlled trial comparing a single intra-articular injection of Gel-One, a new cross-linked formulation of hyaluronic acid, to phosphate buffered saline for treatment of osteoarthritis of the knee. *Osteoarthritis and Cartilage*. 20: 350-356, 2012.
3. Balazs, E. A. Viscoelastic properties of hyaluronic acid and biological lubrication. *UnivMichigan Med Ctr. J.* 1968;255-259.



4298.1-US-en-Issue Date 2023-08

Residual volume ratio of HA products in PET mesh bag (Product + water absorbed into product)

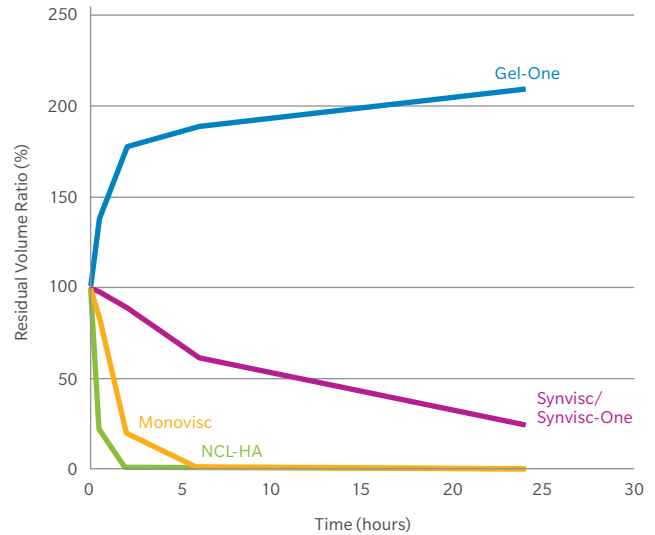


Figure 3

Indications For Use: Gel-One Hyaluronate is indicated for the treatment of pain in osteoarthritis (OA) of the knee in patients who have failed to respond adequately to non-pharmacologic therapy, nonsteroidal anti-inflammatory drugs (NSAIDs) or simple analgesics, e.g., acetaminophen.

Important Safety Information: Before using Gel-One Hyaluronate, ask your patients if they are allergic to hyaluronan products, cinnamon, or products from birds, such as feathers, eggs, and poultry. Gel-One Hyaluronate is only for injection into the knee, performed by a doctor or other qualified healthcare professional. Gel-One Hyaluronate injection should not be used in the presence of skin disease or infection around the area where the injection will be given. Gel-One Hyaluronate has not been tested to show pain relief in joints other than the knee or for conditions other than OA. Gel-One Hyaluronate has not been tested in patients who are pregnant, mothers who are nursing, or anyone under the age of 21. Strenuous or prolonged weight-bearing activities after treatment are not recommended. The effectiveness of repeat treatment cycles of Gel-One Hyaluronate has not been established. The side effects most commonly seen after injection of Gel-One Hyaluronate in the clinical trial were knee pain, swelling and/or knee effusion. These reactions are generally mild and do not last long. For complete instructions for use, see the package insert and visit www.zimmerbiomet.com. Gel-One Hyaluronate is indicated for the treatment of pain in osteoarthritis (OA) of the knee in patients who have failed to respond adequately to non-pharmacologic therapy, non-steroidal anti-inflammatory drugs (NSAIDs) or simple analgesics, e.g., acetaminophen.

All content herein is protected by copyright, trademarks and other intellectual property rights, as applicable, owned by or licensed to Zimmer Biomet or its affiliates unless otherwise indicated, and must not be redistributed, duplicated or disclosed, in whole or in part, without the express written consent of Zimmer Biomet. This material is intended for healthcare professionals. Distribution to any other recipient is prohibited. For indications, contraindications, warnings, precautions, potential adverse effects and patient counselling information, see the package insert or contact your local representative; visit www.zimmerbiomet.com for additional product information. Gel-One is a registered trademark of Seikagaku Corporation. ©2023 Zimmer Biomet



Learn More
About the Benefits
of Gel-One

