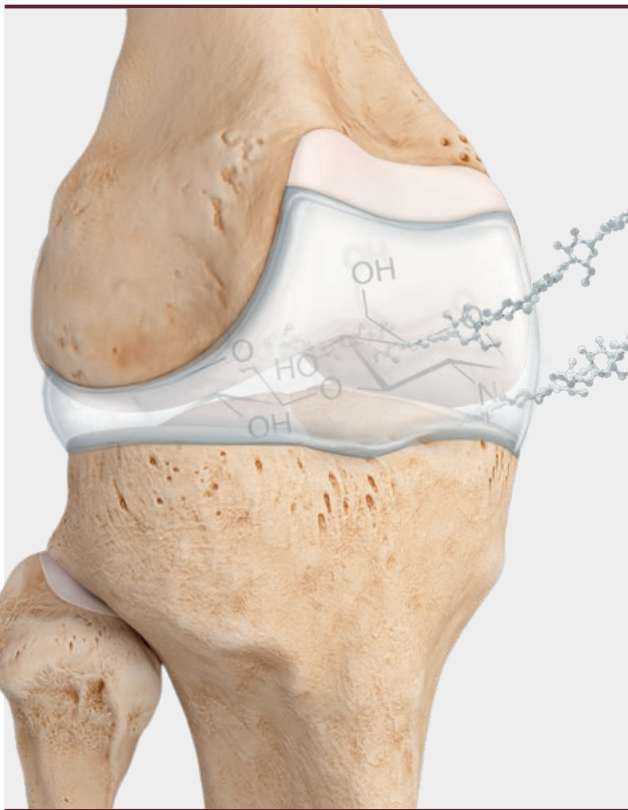


# Hyalur

## Biologic Hyaluronic Acid

### Introduction

In patients with degenerative joint disease (osteoarthritis), the viscoelasticity of the synovial fluid is significantly affected. This leads to mechanical stress of the joint and the degradation of articular cartilage, which results in limited joint mobility and pain. The lubricating and shock-absorbing properties of Hyalur contribute to pain reduction and improved joint mobility. This effect can last for several months after a treatment cycle of 3 intra-articular injections.<sup>1</sup>



### Features and Benefits

- Significantly reduced risk of allergy – high-quality hyaluronic acid of biofermentative origin (no materials of animal origin)
- Guarantee of originality – sealed hard cover blister
- Easy to handle – stable plunger with solid end fitting
- Injection safety – constant injection force during use

### Indications

The device is used in humans for injection into knee joints in order to restore the natural viscoelastic properties of synovial fluid (viscosupplementation). The device is indicated for treatment of pain and restricted movement as a consequence of degenerative or traumatic changes to the knee joint area.

### Superior Quality

Hyalur is a high-quality hyaluronic acid. The medical device is manufactured in accordance with European standards, based on the standards in the European Pharmacopoeia.

### Keypoints

- 1 % (10 mg sodium hyaluronate / ml)
- 1 600 kDa, non-crosslinked
- 2 ml Volume
- no animal origin
- higher quality standards than required

## Mechanism of Action

### Proposed Therapeutic Effect

- Inflammatory processes – anti-inflammatory: inhibits interleukin-1 $\beta$  expression and associated synthesis of metalloproteinases and reactive oxygen species<sup>2</sup>
- Cartilage degradation – chondroprotection: reduces chondrocyte apoptosis while increasing chondrocyte proliferation and proteoglycan and glycosaminoglycan synthesis<sup>2</sup>
- Compromised synovial fluid – synovial fluid improvement: promotes intrinsic production of HA, reduces friction and protects through shock absorption effects<sup>2</sup>

## Ordering Information

Description	Item Number
Hyalur	37277



## References

1. Maheu et al. Comparative efficacy and safety of two different molecular weight (MW) hyaluronans F60027 and Hylan G-F20 in symptomatic osteoarthritis of the knee (KOA). Results of a non inferiority, prospective, randomized, controlled trial. Clin Exp Rheumatol. 2011; 29(3):527-35 (Data were collected using a hyaluronic acid comparable to Hyalur.)
2. Reviewed in Altman et al. BMC Musculoskeletal Disorders (2015) 16:321. (Data were collected using a hyaluronic acid comparable to Hyalur.)