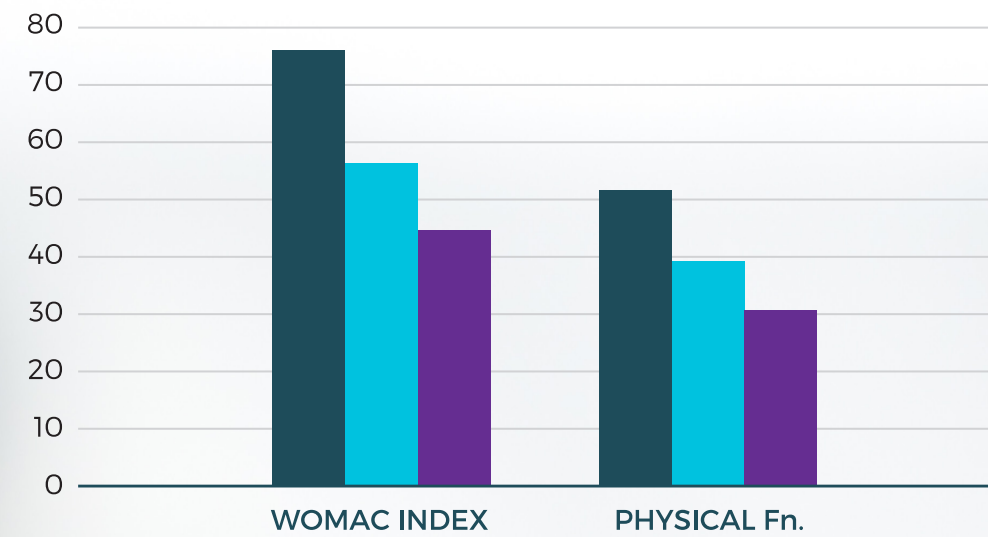
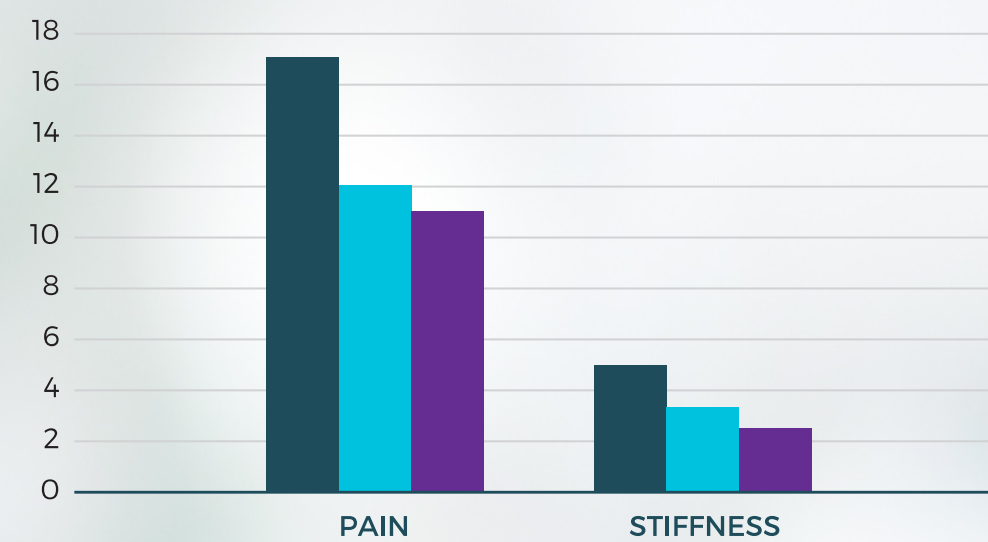


	Base Line	3 Months	6 Months <sup>5</sup>
WOMAC INDEX	75	53	45
PHYSICAL Fn.	52	38	31



	Base Line	3 Months	6 Months <sup>5</sup>
PAIN	17	12	11
STIFFNESS	5.3	3.3	2.7



## Why OPTIVISC?

- **Intra-articular Injection Segment**
  - a. 20 mg. & 40 mg. for Multiple Injection regime
  - b. 60 mg. & 90 mg. for Single Injection Treatment
- **Superior Formulation**  
High Molecular Weight Formulation with Higher Viscosity & HA concentration as per requirement
- **Quality Certification**  
(CE) available for entire range
- **Patient Results** (depicted above) shows adequate benefit for those suffering from OA



**5%** of world population is affected by OA and it accounts for **2.4%** of all **Years Lived with Disability (YLD) Score**



<sup>1</sup> RMD Open 2015; 1:e000071. Doi: 10.1136/rmdopen-2015- 000071

<sup>2</sup> Masuko et al. Int. J Gen Med 2009 : 2 : 77-81

<sup>3</sup> Altman et al. BMC Musculoskeletal Disorders (2015) 16:321 DOI 10.1186/s12891-015-0775-z

<sup>4</sup> www.ncbi.nlm.nih.gov › pmc › articles › PMC5952125

<sup>5</sup> Data on File. WOMAC Score at the end of 6 months after Injection with Optivisc Single Shot (90Mg.)



IAHA provides a moderate but **real benefit** for patients with Knee OA.<sup>1</sup>

HA in Optivisc acts as Lubricant and Shock Absorber



Symptoms of OA present as pain in and around the joints, morning stiffness, restricted joint movements associated with muscle weakness. Knee OA is associated with disrupted sleep, depression, increased sedentary behavior, less physical activity, obesity and decreased the quality of life.<sup>4</sup>

HA in Optivisc interferes with Prostaglandins and Cytokines that promotes inflammation

HA in Optivisc can slow down the disease (osteoarthritis) progression<sup>2</sup>



**Optivisc** reduces pain by **36.9%**



**Optivisc** reduces stiffness by **48.9%**



**Optivisc** improves mobility (physical function) by **39.7%**



Chondroprotection was the most frequent mechanism reported, followed by proteoglycan and glycosaminoglycan synthesis, for anti-inflammatory, and analgesic actions of HA.

HA-cluster of differentiation 44 (CD44) receptor binding was the most frequently reported biological cause of the mechanisms presented.

High molecular weight HA was seen to be superior to lower molecular weight HA products.

HA derived through a biological fermentation process is also described as having favorable safety outcomes over avian-derived HA products.<sup>3</sup>

