

WHAT ARE THE BENEFITS OF RECEIVING BIOVISC TREATMENT?

Successful treatment with Biovisc should reduce pain in an osteoarthritic knee, resulting in increased mobility and improving joint function. Because it is a local treatment given as intra articular injection in joint cavity, Biovisc should not interfere with any concomitant medicine that the patient may take.

COULD THERE BE ANY SIDE EFFECTS WITH BIOVISC INJECTION?

Following the injection, some patients may experience a mild local reaction like transient pain, heat, redness and swelling. If these symptoms occur, rest the affected joint and apply an ice pack on your knee for 10-15 minutes or as recommended by your doctor. For most of the patients, symptoms subside within days. In case of severe or persistent symptoms, you should consult your doctor.

In the first 48 hours of Biovisc injection, patient should avoid activities such as jogging, heavy lifting, prolong standing, however normal daily activities can be resumed.



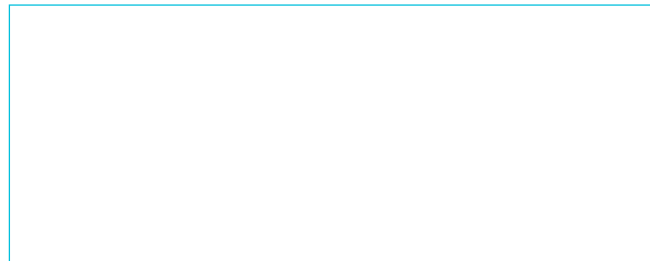
HOW LONG CAN I EXPECT THE BENEFITS OF BIOVISC TO LAST?

Each patient may react differently to Biovisc treatment. Usually three to five injections given at weekly intervals can provide most patients with pain relief for up to 6 months. Patient may choose Single Injection regimen also to manage their arthritic joints. The duration of pain relief for patient may vary and if effective, treatment can be repeated usually after 6 months.

VISCO-SUPPLEMENTATION WITH BIOVISC

SYMPTOM	TREATMENT CYCLE	PRODUCT	OUTCOME
JOINT PAIN	5 INJECTIONS	BIOVISC ORTHO 20	PAIN RELIEF AND IMPROVED MOBILITY
	3 INJECTIONS	BIOVISC ORTHO PLUS 40	
	1 INJECTIONS	BIOVISC ORTHO SINGLE 60	

For further inquiry please contact your surgeon.



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BIOVISC

Biovisc is choice of treatment for the symptoms of mild to moderate osteoarthritis.

It can be used in the knee, or in any other synovial joints. This leaflet gives you some basic information about synovial joints, osteoarthritis and about Biovisc. If you have any questions after you have read this leaflet, please ask your doctor.



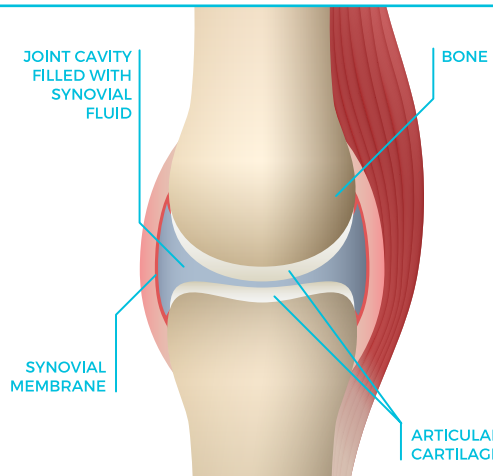
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ORTHOPAEDIC

WHAT IS OSTEOARTHRITIS?

Osteoarthritis is the most common type of disease where joints wear out. When the smooth cushion between bones (cartilage) breaks down, joints can get painful, swollen and hard to move.

WHAT IS SYNOVIAL JOINT?

A synovial joint is the type of joint found between bones that move against each other, such as the joints of the limbs e.g. shoulder, hip, elbow and knee. Synovial joints are the most flexible type of joint between bones, because the bones are not physically connected and can move more freely in relation to each other.



In Synovial joints bone ends are covered with smooth gristly material called cartilage which acts as a shock absorber cushion and reduces friction as the bones move over each other.

Synovial joint is filled with clear sticky substance called synovial fluid which nourishes and lubricates the cartilage surfaces as they move against each other, like oil lubricating a piston.

FUNCTIONS OF SYNOVIAL FLUID

- Synovial fluid lubricates the articulating joints and reduce the friction
- It absorb the shock and protect the Cartilage
- It supply and provide nutrition to Cartilage

The most important constituent of Synovial fluid is Hyaluronic acid which is synthesized by the synovial membrane and secreted into the joint cavity. Presence of high molecular weight Hyaluronic acid provides synovial fluid, required viscosity to perform all three functions at same time.

WHAT HAPPENS IN OSTEOARTHRITIS?

In normal joint, healthy concentration of Hyaluronic acid in synovial fluid is maintained due to balance between production of new hyaluronic acid and break down of old Hyaluronic acid. But in Osteoarthritis, the breakdown of Hyaluronic acid become faster which cause imbalance and decrease in Hyaluronic acid level in synovial fluid. Patients with knee Osteoarthritis have one-half to one-third less hyaluronic acid than normal.

As a result synovial fluid become watery and lost its functional ability. Thinning of Synovial fluid fails to exhibit protective mechanism toward cartilage which lead to wear of cartilage. Altogether, thinning of Synovial fluid and Cartilage wear lead to symptoms of Osteoarthritis which include pain, joint stiffness and swelling.

WHAT IS BIOVISC?

Biovisc is viscous gel formulated with high molecular weight injectable grade hyaluronic acid from bio-fermentation origin which is indicated in the symptomatic treatment of osteoarthritis. Hyaluronic Acid used in Biovisc is from non-animal origin and biocompatible material. Biovisc is administered intra-articularly into the synovial space of affected joint.

HOW DOES BIOVISC WORK?

In osteoarthritis, hyaluronic acid present in the liquid inside healthy joints (synovial fluid), is reduced. This loss changes the viscosity and elasticity properties of the fluid that affects its natural cushioning and lubricating properties. Introduction of Biovisc increases the viscosity of the Synovial fluid, restoring its lubricating, shock-absorbing and filtering properties. Hence, it has been shown to be beneficial in osteoarthritis for the management of pain and improvement in physical function of joints.

WHEN CAN PATIENT EXPECT PAIN RELIEF AFTER INJECTION?

Patient may not experience any pain relief immediately after the first injection, but Patient will begin to feel less pain and stiffness over the next few weeks. Each patient's response to Biovisc may vary, depending on individual factors like severity level of Osteoarthritis, degree of pain, and pre-existing medical conditions. Some patients may experience reduction in pain within the first week after treatment begins while other may experience pain relief after their third injection of Biovisc, in multiple injection regimen.

