

# SkyVisc Cross Link

## WHAT IS OSTEOARTHRITIS (OA) OF THE KNEE?

- Osteoarthritis (OA) is known as the most common chronic disease of the cartilage.  
As the cartilage breaks down due to wear-and-tear and/or mechanical stress, it causes swelling, pain, and inflammation, leading to extracellular matrix (ECM) loss.<sup>1</sup>
- Knee osteoarthritis (KOA) is a progressive joint disease that often involves intra- and periarticular structures<sup>2</sup> and is considered a pathology characterized by articular cartilage lesions, synovitis, subchondral sclerosis, and osteophytes<sup>3</sup>.
- Knee osteoarthritis (OA) is most often a slowly progressive joint disorder characterized by cartilage degeneration and inflammation<sup>4</sup>. Knee OA commonly results in knee pain and decreases patients' mobility (e.g. walking and stair climbing)<sup>5</sup>.
- The pain of osteoarthritis is usually related to activity. For osteoarthritis of the knee, activities such as climbing stairs, getting out of a chair, and walking long distances bring on pain. Morning stiffness usually lasts less than 30 minutes<sup>6</sup>. Patients often note that their knees "give way," a so-called instability symptom.

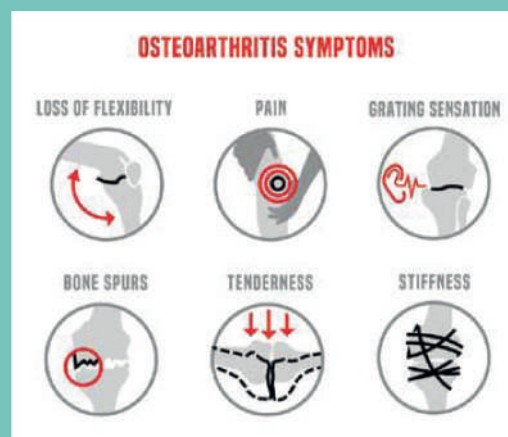
## WHAT ARE THE RISK FACTORS FOR OSTEOARTHRITIS ?

- Age is one of the most common risk factors<sup>7</sup>
- Biological age-related changes in the joint structures<sup>7</sup>
- Female sex (knee OA)<sup>8</sup>
- Obesity (knee OA)<sup>8</sup>
- Previous knee injury (knee OA)<sup>8</sup>
- Knee malalignment (knee OA)<sup>9,10</sup>
- Knee extensor muscle weakness (knee OA)<sup>11</sup>
- Cam deformity and mild dysplasia (especially in the middle-aged (55-65 years), but not in the older population (older than 65 years)) (hip OA)<sup>12</sup>
- Severe dysplasia (hip OA)

## WHAT ARE THE OA SYMPTOMS?

The joint pain of OA is typically described as being exacerbated by activity and relieved by rest. More advanced OA can cause pain at rest and during the night, leading to loss of sleep that further exacerbates pain. The cardinal symptoms that suggest a diagnosis of OA include

- Pain (typically described as activity-related or mechanical; may occur with rest in advanced disease; often deep, aching, and not well localized; usually of insidious onset).



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- Reduced function.
- Stiffness (of short duration, also termed "gelling," that is, short-lived stiffness after inactivity).
- Joint instability, buckling, or giving way.
- Patients also may complain of reduced movement, deformity, swelling in the absence of systemic features such as fever, crepitus, discomfort associated with increased age (OA is unusual before age 40 years), and, when pain persists, pain-related psychological distress<sup>13</sup>.

## OA STAGES

- Stage 0** (Pre-Osteoarthritis) – Asymptomatic.
- Stage 1** (Early or Doubtful) – Mild joint pain; No serious symptoms yet.
- Stage 2** (Mild or Minimal) – Pain with activity; Difficulty straightening and bending joints; Stiffness.
- Stage 3** (Moderate) – Frequent pain with movement; Stiffness in the morning or after sitting; visible swelling of joints possible.
- Stage 4** (Severe) – High pain with joint usage; Daily activities very difficult; Intense stiffness; Severe swelling and inflammation.



## WHAT IS SkyVisc™ CROSS?

- SkyVisc™ Cross is intended for the treatment of symptoms of human joint disorders such as osteoarthritis.
- SkyVisc™ Cross is indicated for viscoelastic replenishment or replacement of synovial fluid in human joints.
- Reduced joint pain and stiffness for up to 6 months.
- Highly purified cross-linked hyaluronic acid.
- Bacterial origin.
- One injection per treatment.
- Long-lasting pain relief up to 12 months.
- CE Certified.





## WHAT IS CROSS LINKED HYALURONIC ACID?

- In its natural state, HA is enzymatic and breaks down at rapid speeds. Therefore, in order to sustain turnover of the molecules, they must be chemically engineered to create a thicker gel in comparison to the usual liquid form.
- By transforming the liquid into a gel, polymer chains are crosslinked together to maintain shape for a longer period of time and slow the process of disintegrating.
- The more links that are created, the thicker the product becomes and more difficult it is for the body to breakdown and disintegrate.

## CLINICAL EXPERIENCE WITH HYALURONIC ACID IN ORTHOPAEDICS

- Hyaluronic acid (HA) has been used mostly in the treatment of cartilage and osteoarthritis.
- It has been used in several joints (knee, ankle, shoulder, hip, first carpometacarpal, etc.).
- It has shown transient benefits in pain relief and improved range of motion (minimum 6 months).
- It has rare adverse effects (mainly self-limited pain and swelling (spontaneously solved within 48 h)).
- It has shown promising results in the treatment of tendinopathies including enthesopathies.
- Intra-tendon injections might have deleterious effects<sup>16</sup>.



## TREATMENT WITH SkyVisc™ CROSS

The product should be administered according to the frequency determined by the physician, according to the recommended frequency decision, such as 6-8-12 months. The number of injections is a decision that your orthopedist needs to make.

## WHEN SHOULD YOU NOT TAKE SkyVisc™ CROSS?

- SkyVisc™ Cross should not be injected in patients with known sensitivity to any of the ingredients contained in the product.
- SkyVisc™ Cross should not be injected in patients with pre-existing infections of the skin in the region of the intended injection site.
- SkyVisc™ Cross should not be administered in patients with known systemic bleeding disorders or known infections of the index joint and infected and inflamed joints.
- SkyVisc™ Cross may contain trace amounts of gram-positive bacterial proteins, so it should not be administered to patients with a history of such allergies.

## SAFETY INFORMATION

If the patients have any known allergies, should ask doctor to decide treatment with SkyVisc™ Cross. Only medical professionals trained in accepted injection techniques for delivering agents to intra-articular synovial joint spaces should inject sodium hyaluronate for this application.

SkyVisc™ Cross is recommended for patients with Osteoarthritis and Joint Diseases. The product should not be used in pregnant or breast-feeding women, and children.

## Make Your Older Years To Your Golden Years



**Address:** Pendik - İstanbul / Türkiye • **Phone:** +90 850 840 75 46  
**E-Mail:** [info@skybiotechnology.com](mailto:info@skybiotechnology.com) • **Web:** <https://skybiotechnology.com>