

*Not an actual patient.



nSTRIDE[®] Autologous Protein Solution System

Treating Osteoarthritic Knee Pain



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Do you have knee pain?

Knee pain is a common symptom experienced by people of all ages. It can be caused by a traumatic event, or by normal wear and tear that can become worse over time.¹ The knee is a type of hinge joint formed by the tibia (shinbone), femur (thighbone), and patella (kneecap).

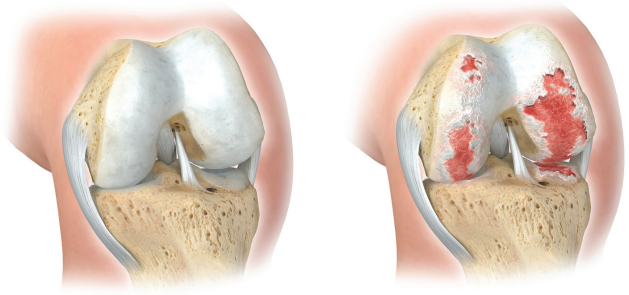
The ends of the bones in the knee joint are covered with cartilage, a tough lubricating tissue that helps provide smooth, pain-free motion to the joint.² When knee pain becomes worse over time, arthritis may be the cause.³⁻⁴ Symptoms of arthritis are pain, swelling, or stiffness in the joint and may be caused by inflammation.^{3,5} In Canada, 98% of initial knee replacements are due to osteoarthritis.⁶



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What is Osteoarthritis (OA)?

OA is the most frequent type of arthritis and most commonly affects the knee joint.³⁻⁴ Osteoarthritis is damage done to the joint over time.³⁻⁵ In a normal joint, cartilage provides cushioning between bones. As wear or a traumatic event occur, the cartilage layer can become thinner or frayed resulting in knee pain.⁴⁻⁵ Over time, pain increases as cartilage wears away and bones rub against each other.⁴ Osteoarthritis negatively impacts quality of life through pain, limited mobility, reducing the ability to work and diminishing self-esteem.⁴⁻⁵



What are the stages of OA?

OA symptoms can range from very mild to very severe and often limit your everyday activities:

Early⁶

Cartilage begins to wear down. Symptoms are generally mild, and may include pain that comes and goes.⁷⁻⁸

Moderate⁶

Joint fluid may lose its ability to lubricate and cushion the affected joint. You may have more pain and difficulty in movement.⁷⁻⁸

Late⁶

Areas of cartilage may totally wear away, causing bones to rub against each other.⁶⁻⁷ You may experience significant pain.⁷⁻⁸

Once OA pain starts it is hard to stop

nSTRIDE APS System is a novel therapy (from your own body) designed to treat pain^{9*} and slow the progression of cartilage degradation and destruction in the knee.^{10^} nSTRIDE APS System processes your own blood to provide a true novel output.

The output is injected directly into the knee joint distributing beneficial and good proteins.¹¹ In laboratory testing, these “good” proteins block and slow the degradation of cartilage treating the underlying cause of OA knee pain, unlike traditional therapies.^{10^} Your results may be different than those obtained in the laboratory.

- **Significantly reduces pain associated with Knee OA up to 2 years**^{9*, 12, 17}
- **Significantly improves mobility in the knee joint**^{9*, 12, 17} associated with OA
- **70% improvement in knee pain at 2 years following a single treatment**¹⁷



*Not an actual physician and patient.

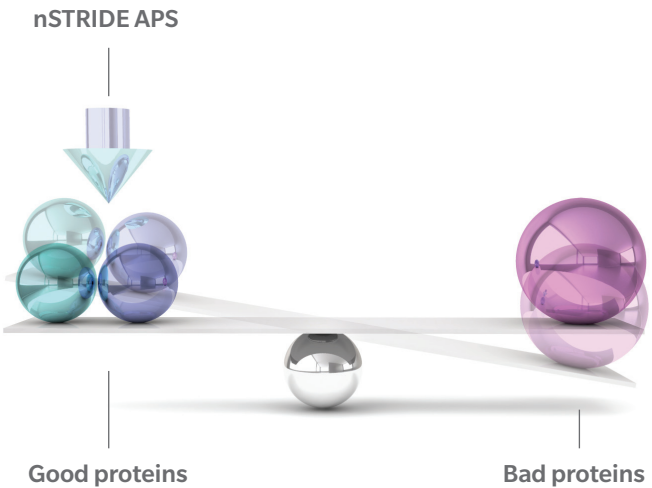
Science behind nSTRIDE APS System

In an osteoarthritic knee, inflammatory cytokines (“bad” proteins) outnumber anti-inflammatory cytokines (“good” proteins) causing an imbalance resulting in knee pain and cartilage degeneration.¹³

The inflammatory proteins IL-1 and TNF α attack the cartilage.¹³ These “bad” proteins must be stopped simultaneously to decrease pain and slow cartilage degeneration.¹³

The nSTRIDE APS treatment introduces high levels of “good” proteins (IL-1ra, sIL-1R, sTNF-RI, and sTNF-RII)¹⁰ that is designed to overwhelm and block the inflammatory cytokines (bad proteins) IL-1 and TNF α .^{14^}

Animal and human studies have shown that nSTRIDE APS treatment decreases pain.^{9,12,17} In laboratory setting it has also been associated with decreased cartilage degeneration, unlike traditional therapies.^{10^} Again, your results may differ.



While balance is being restored to the knee, anabolic (building) growth factors (IGF-1 and TGF- β 1) are also introduced for beneficial cartilage health.¹¹

Therefore, nSTRIDE APS System creates a novel therapy which may reduce pain in the knee joint, may improve joint function and slow the destruction of cartilage.^{10^} This therapy is provided in a non-surgical, single treatment in the doctor’s office.

Frequently asked questions

What is nSTRIDE APS System?

nSTRIDE APS System is an autologous (from your own body) therapy which is designed to treat joint pain associated with knee osteoarthritis.

How does nSTRIDE APS treatment work?

nSTRIDE APS treatment introduces anti-inflammatory proteins to the knee joint. Positive outcomes are possible because the treatment may help stimulate presence of high concentrations of anti-inflammatory proteins.¹⁵ These “good” proteins may help stimulate a biologic cascade which has been shown to block cartilage destruction in osteoarthritis.^{10^} The pain in the joint may be reduced, and the joint function may be improved. The ongoing destruction of cartilage may also be slowed.^{10^} The nSTRIDE APS System is designed to be a single treatment therapy in the doctor’s office.

What is nSTRIDE APS System made of?

The nSTRIDE APS System is designed to process the patient’s own blood in the doctor’s office to concentrate white blood cells, platelets, and plasma proteins into a small volume of plasma. The output is approximately 2 to 3 cc of anti-inflammatory solution.

How is nSTRIDE APS treatment given?

2-3 cc of final output will be injected directly in the knee joint.

Are there side effects?

You may experience side effects (e.g., bruising, local pain or swelling) associated with the blood draw, knee injection, MRI or X-Ray procedures.

Will nSTRIDE APS treatment cure my OA?

There is no cure for OA.¹⁶ But successful treatment with nSTRIDE APS System may reduce or relieve your pain which may increase your mobility and comfort.¹² Your osteoarthritis may not improve or may get worse.

What are the main benefits of nSTRIDE APS treatment?

nSTRIDE APS System may significantly decrease or eliminate pain, reduce stiffness and help restore mobility and flexibility.^{9*, 12}

When will the treatment start to work?

Pain relief may be expected after one to two weeks.^{9*, 12}

Is nSTRIDE APS System safe?

Yes. Studies have demonstrated the safety of nSTRIDE APS System.^{9*, 12}

Will I be able to be active as usual during the course of my treatment?

It is recommended that you minimize your activity level for 14 days (but not to exceed pre-injection levels).

How long can I expect the benefits to last?

Based on preclinical and early clinical results, patients may expect to see benefits for up to 24 months.^{9*, 12, 17}

Who can be treated with the nSTRIDE APS System?

Patients with mild to moderate knee osteoarthritis can receive nSTRIDE APS therapy.

How many nSTRIDE APS treatments are required?

Clinical studies have demonstrated the effectiveness of one treatment lasting up to 24 months.^{9, 12, 17, *}



Not an actual patient.

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* Animal studies are not necessarily indicative of clinical performance.

^ Laboratory testing is not necessarily indicative of clinical outcomes.

As measured by WOMAC pain scores reported by patients continuing follow-up through 2 years (n = 22).

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