

St. Luke Hospital's autologous bone marrow stem cell therapy is different!

Orthopedic specialist from Samsung Medical Center

Designated as a stem cell research and educational institution

Treatment satisfaction rate 93%, recommendation rate 96%

Sterile clean system to prevent secondary infections

We believe treatment can lead to a cure!



2017 Spine & Joint Korea Excellent Brand Award



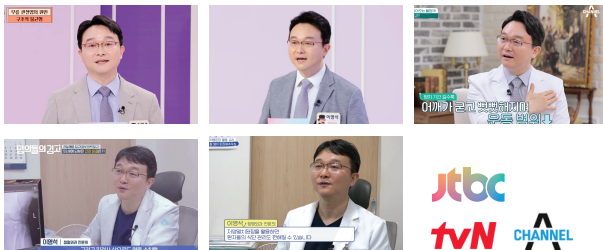
Experience in over 2,000 surgeries and procedures

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Orthopedic specialist from Samsung Medical Center
Outpatient professor of orthopedics at Samsung Medical Center
Published SCI papers



TV appearances, Medical Consulting



Post-Surgery Precautions

- Allow sufficient rest and recovery time after the surgery.
- Maintain a healthy lifestyle with a nutritious diet and regular exercise.
- Avoid vigorous exercise. Indoor cycling and swimming, which do not put stress on the knee, are recommended.
- Avoid getting the treated area wet to manage the wound properly.
- If swelling and fever in the treated knee persist for more than 3-4 days, please visit the hospital.
- Regular hospital visits are recommended for rehabilitation Therapy.

FAQ's

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Q. Are stem cell injections safe? Any side effects?

Bone marrow is aspirated from the patient's own iliac crest. The iliac crest is not very deep and is easily accessible, making the **procedure safe and straightforward**. Additionally, **injections into the knee are very safe**, so there is no need to worry. The process is similar to receiving a hyaluronic acid injection, ensuring safety. Since the bone marrow tissue comes from the patient's own body, there is no risk of immune rejection, resulting in minimal side effects.

Q. Where can stem cells be obtained?

Stem cells can be obtained from bone marrow and adipose tissue. Bone marrow stem cells are widely used in the field of orthopedics **due to their strong proliferative ability, excellent chondrogenic potential, and ease of storage and transport**. Most clinical results have also been reported to be excellent. Adipose tissue has the advantage of being obtainable from various sites than bone marrow. When comparing the same volume, adipose tissue contains approximately 500 times more stem cells than bone marrow. However, it has been reported that the **chondrogenic potential of adipose tissue** stem cells is not as good as that of bone marrow stem cells.

Q. How is it different from traditional stem cell therapy?

Traditional stem cell therapy involves checking the cartilage through surgery and then injecting the stem cells. After treatment, you must use crutches because you cannot put weight on the knee until the cartilage regenerates. This requires a lengthy rehabilitation period after surgery. **The treatment is also costly, and you need to rest for at least three months without working**, making it very difficult to decide on the treatment. However, with autologous bone marrow stem cell therapy, stem cells are extracted from your own body and injected into your knee. As a result, **you can walk immediately after the procedure and resume daily activities right away**.

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Slow Down Osteoarthritis Progression with Autologous Bone Marrow Stem Cell Injections!

Autologous Bone Marrow Stem Cell Therapy

B M A C



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Scientifically Proven (SCI-grade Papers) Effectiveness of Autologous Bone Marrow Aspirate Concentrate Injection Therapy





Medical Foundation St. Luke Hospital

Autologous Bone Marrow Stem Cell Therapy (BMAC)

This treatment involves extracting bone marrow from the patient's anterior superior iliac spine centrifuging and concentrating the bone marrow aspirate, and then injecting it into the knee joint.

Delayed Osteoarthritis Progression	Rapid Pain Relief through Inflammation reduction
Cartilage Regeneration Effect	Short Hospital Stay (Walking Possible the Next Day)
Injection Treatment Using Local Anesthesia	Quick Return to Daily Activities
Autologous Bone Marrow Stem Cell	Suitable for All Ages
Cost-Effective	Improve Joint Function

Who Benefits from This Therapy?


	
KL-Grades 2	KL-Grades 3
ICRS Grades 3	ICRS Grades 4

- ✓ Patients with degenerative osteoarthritis showing joint space narrowing, bone spurs, or bone deformities (KL grades 2-3)
- ✓ Patients with cartilage damage exceeding 50% or with progressing calcification (ICRS grades 3-4)



How is the Procedure Performed?




- 1 Bone Marrow Stem Cell Extraction
- 2 Transfer the extracted bone marrow into a kit

- 3 Centrifugation for separation
- 4 Removal of separated bone marrow plasma

- 5 Extraction of bone marrow aspirate concentrate containing bone marrow cells
- 6 Injection of Bone Marrow Aspirate Concentrate (BMAC) including extracted stem cells

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Scientifically Proven (SCI-grade Papers) Effectiveness of Autologous Bone Marrow Aspirate Concentrate Injection Therapy

Heliyon



Effectiveness of a single intra-articular bone marrow aspirate concentrate (BMAC) injection in patients with grade 3 and 4 knee osteoarthritis

George S. Theodoropoulos^{1,2,3,4}, George D. Chlidas^{1,2,3,4}, Ioannis M. Karamalis^{1,2,3,4}, Ioannis A. Georgakopoulos^{1,2,3,4}, Maria S. Theodoridou^{1,2,3,4}, Panagiotis A. Pappasopoulos^{1,2,3,4}, Olga M. Sideridou^{1,2,3,4}

4. Discussion

Orthobiologics has emerged as a therapeutic option with special emphasis on regenerating damaged or diseased tissue, correcting the systems biology and delaying or

Table 1. Summary of results, 121 patients (121 knees).

Outcome Instrument	Pre-treatment	Post-treatment	p value
NPS	8.33 (range 5–10)	4.49 (range 1–10)	<0.001
OAS	20.20 (range 7–39)	32.29 (range 16–48)	<0.001

NPS: Numeric Pain Scale; OAS: Oxford Knee Score.

Check out firsthand treatment testimonials from our patients!

Adam's testimonial




Real Stories of Degenerative Osteoarthritis
 "Found a way to reduce the pain and walk more in Korea! After BMAC injection therapy."

- 38-year-old male, Stage 2 degenerative osteoarthritis, British
- Suffered from knee pain for 20 years
- Able to walk freely after treatment

Kang Jeom Soon's testimonial




Degenerative Arthritis (Stage 3) Real Story
Autologous Bone Marrow Stem Cell Injection Treatment

- 72-year-old female, Stage 3 degenerative osteoarthritis
- Received autologous bone marrow aspiration concentrate injection treatment
- Has experience with stem cell treatments at other hospitals

Kim Eun Sil's testimonial




Real Story Stem Cell Injection Therapy?
 Was worried due to unfamiliarity and anxiety

- 62-year-old female, Stage 2 degenerative osteoarthritis
- Has undergone multiple hyaluronic acid injections treatments

Jeong Do Kyun's testimonial




Degenerative Osteoarthritis Real Story
 "Vegetative state for 3 weeks due to an accident With bolts embedded in bones, torn ligaments, Could no longer undergo surgery"

- 61-year-old male, Stage 3 degenerative osteoarthritis
- In a brain-dead state for 3 weeks, unable to undergo knee surgery
- Received injections and medication treatment for 4-5 years

Bang Yoon Ho's testimonial




Degenerative Osteoarthritis Real Story
 "I was thinking, is total knee replacement surgery the only option for me? But, after trying autologous bone marrow stem cell treatment."

- 71-year-old male, Grade 3 degenerative osteoarthritis
- Advised total knee replacement surgery
- Acupuncture, heat therapy, 9-10 injections