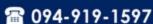
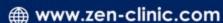


# MSC FOR OTHOPIDIC

Google maps



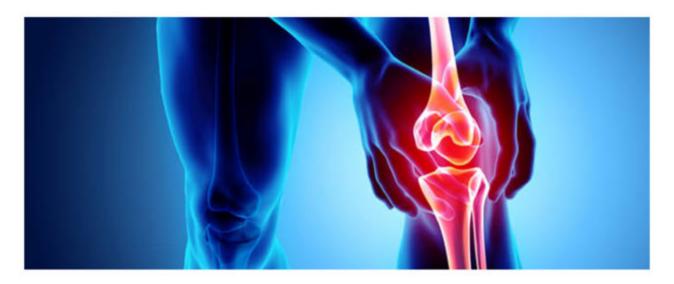




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**1** Zen Cell Rejuvenation





### P.R.P (Platelet Rich Plasma)

Suitable for grade 1 OA Patient

Platelet is the cell in the blood which best known for their role in forming a clot to stop bleeding. However, it also contains a variety of proteins called growth facors.

Platelet rich plasma therapy is based on these growth factors which support healing.

The process, which uses the person's own blood, involves separating the red blood cells from the plasma, the liquid part of the blood.

The process increases the concentration of platelets and stimulate the growth factor releasing, which are in the plasma and injected back into the degenerated joint.

Athletes such as Tiger woods, John Terry, Rafael Nadal etc. are rumored to have undergone a relatively new treatment that involves injections of platelet rich plasma.

Proponents say the therapy offers cutting edge treatment for previously debilitating injuries, including painful knee problems due to osteoarthritis. PRP has an average of 7 usable growth factors.

# Cost 5,500 THB per Treatment, each treatment includes:

- \* HBOT (Hyperbaric Oxygen Therapy) 1 Times
- \* PRP 1 time, the treatment may require 3 or more depends on individual health condition.





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#### C.E.P.T Therapy (Cellular Enriched Plasma Therapy)

Suitable for grade 1-2 OA Patients

In light of the MSC's high capability of proliferation and multilineage differentiation as well as their significant role in modulating immunity, these cells can be used in combination with PRP to enhance the growth factors and speed of recovery.

Moreover, the MSCs' secretions can be used in cell therapy to heal many types of injuries especially related to Osteoarthritis.

The Combination of MSCs and PRP aids healing which could potentially be used to promote and enhance the healing process.

In the Zen C.E.P.T system 2 million MSCs Cells are added lifting the growth factors to between 50-70 as advantage to standard PRP.

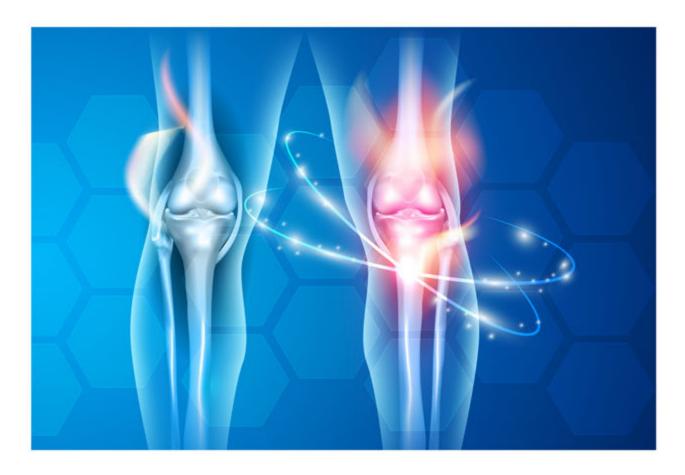
# Cost 20,000 THB per, Treatment Includes:

- \* 2 x Hyperbaric Oxygen Therapy
- \* 1 x C.E.P.T Therapy, 1 Time PRP Follow



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### E.C.E.P.T (Enhanced Cellular Enriched Plasma Therapy)

Suitable for grade 2-3 OA Patients

This system is similar to C.E.P.T however with 5 million MSC cells added to the already platelet enriched plasma adding an estimated 80 – 120 growth factors. Mesenchymal stem cells (MSCs) are an investigational treatment of osteoarthritis.

The International Society for Cellular Therapy (ISCT) defines MSC to be mesenchymal "Stromal" cells having the attributes of being plastic-adherent culture-expanded cells without hematopoietic cell markers that express specific cell surface markers: CD73, CD90, and CD105. And that show the ability to differentiate into osteoblasts, adipocytes, and chondrocytes in vitro. In Clinical trials, placement of MSCs into the knee joint has proved an effective treatment for osteoarthritis.

## Cost 55,000 THB, Treatment Includes:

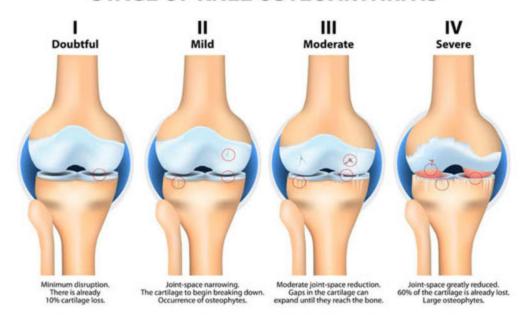
- \* 4 x HBOT (Hyperbaric Oxygen Therapy)
- \* 1 Time E.C.E.P.T Therapy, 3 Time PRP follow up



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#### STAGE OF KNEE OSTEOARTHRITIS



### M.S.C.T (Mesenchymal Stem Cell Therapy)

Suitable for grade 3-4 OA Patients

Osteoarthritis is the most prevalent joint disease and a common cause of joint pain, functional loss, and disability.

Conventional treatments demonstrate only modest clinical benefits without lesion reversal. Autologous mesenchymal stromal cell (MSC) treatments have shown feasibility, safety, and strong indications for clinical efficacy.

Allogeneic MSC therapy may be a valid alternative for the treatment of chronic knee osteoarthritis that is more logistically convenient than autologous MSC treatment.

The intervention is simple, does not require surgery, provides pain relief, and significantly improves cartilage quality. With M.S.C.T 10 MSC million cells combined with Platelet rich Plasma is injected directly into the same injury.

The combination of this create a very high growth factor and has the ability to regenerate damaged cartilage, tissue and strengthen bone.

M.S.C.T is seen to be one of the most advanced methods of treatment for Osteoarthritis or sports ,muscle and orthopedics related injuries

#### Cost 125,000 THB, Treatment Includes:

- \* 4 x HBOT (Hyperbaric oxygen therapy)
- \* 1 times M.S.C.T therapy, 4 time PRP follow up





