

# Stem Cell Therapy

## Introduction

- As we age, the elastic tissue of each joint becomes stiff and lose its elasticity, thereby increasing its susceptibility to damage.
- This problem can be treated with stem cell therapy, where your own body's cells can be used to repair and promote healing of degenerated or injured joints.
- Stem cell therapy in Orthopedics is currently being used in conditions such as:
  - Osteoarthritis (degenerative joint disease)
  - Chronic tendonitis (inflammation of the elastic tissue that connects muscle to bone)
  - Bone fractures
  - Degenerative vertebral discs

## Advantages

- The therapy reduces pain and provides long lasting relief from chronic tendinitis and osteoarthritis.
- The therapy uses the body's own cells for repair therefore there is no chance of rejection.
- Stem cell therapy is a revolution in relieving joint pain without the need for invasive surgical interventions. It is especially helpful in sports medicine enabling you to return to your sport much earlier than with surgery.

## Procedure

- Your doctor will apply a local anesthetic to the area from which cells will be taken (stomach or hip).
- About 30-60cc of bone marrow stem cells or about 20cc of adipose-derived stem cells is extracted.
- The stem cells and platelets are then separated from the rest of the blood by spinning it in a centrifugal machine.
- Healthy stem cells and growth factors are then injected directly into the damaged area.

## Post-procedural care

- Numbness will persist in the injured area for about an hour; once it lessens you should prevent the area from further injury.
- You can use ice for 10-20 minutes every 2-3 hours if required.
- Your doctor may prescribe medications to relieve pain.
- Anti-inflammatory medications should be avoided for at least 4 weeks
- Inform your doctor if you experience bleeding, increased pain, infection or fever.

**Risks and complications**

- Common complications at the injection site include infection and bruising.
- Soreness may occur at the site from where the stem cells were removed.