



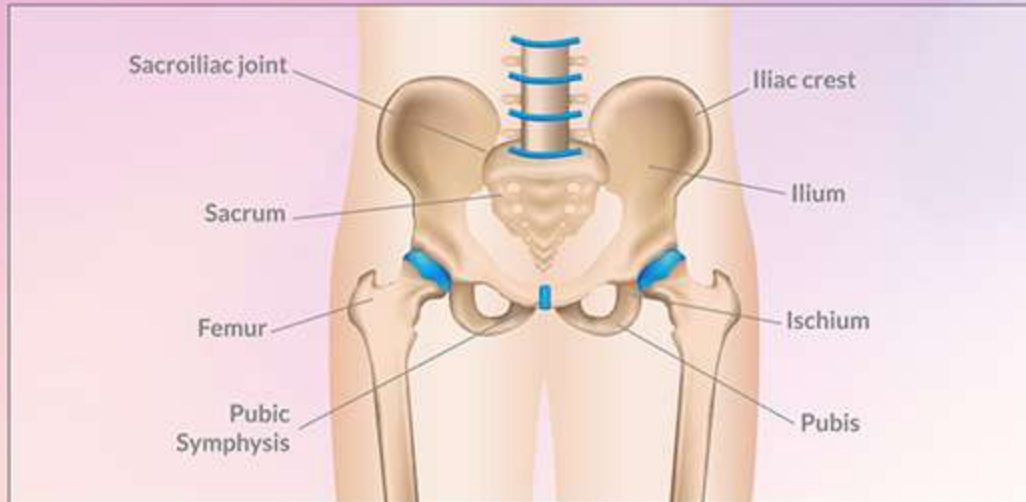
OSSGROW[®]



**BONE CELL
THERAPY**

Hip Joint

The hip joint is a ball & socket joint. The head of femur (thigh bone) sits inside the pelvis. It enables smooth movement and also supports the entire body weight.



Functions of Hip joint

The hip joint unlocks body's fluidic movements and provides remarkable range of motion allowing activities that include *rotation, squatting and running*.



Avascular Necrosis

Avascular Necrosis (AVN), also known as Osteonecrosis, is a condition where the blood supply to the bone is disrupted, leading to the deterioration of the bone tissue. At first it starts with tiny cracks and breaks in the bones, slowly leading to the entire collapse of the femur head.

AVN is usually caused due to steroid use, alcohol abuse, high doses of immunosuppressant, traumatic injuries, excessive smoking, and, certain blood conditions known as hemoglobinopathies.



Symptoms of AVN

Patients may face single or multiple symptoms depending on the extent of the damage caused in the bone.

Once damaged, bone tissue is unable to heal itself or regenerate, leading to collapse of the femur head within 1 year.

Only surgical intervention can help patients preserve their hip joint to get back to an active physical life-style.

Symptoms of Avascular Necrosis



**PERSISTENT
HIP PAIN**



**LIMITED
MOVEMENT**



**PAINFUL
STIFFNESS**



PAIN AT REST



**JOINT
INSTABILITY**

Diagnosis of AVN

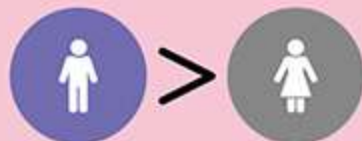
Early diagnosis is the key to an effective treatment plan.

An X-ray scan is the most widely used diagnostic tool for quick diagnosis of AVN. The severity of AVN is staged into 4 Grades (G1-G4). Based on the grade of disease, orthopedic surgeon can recommend the best treatment plan.



30's

Average age
of Disease onset.

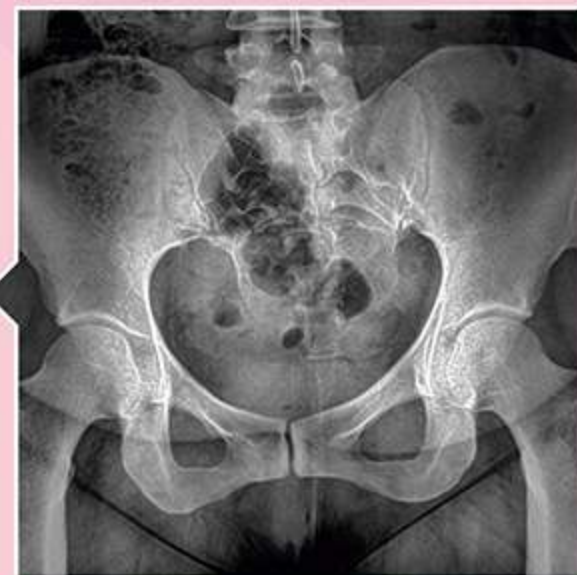


4X prone to AVN



X-Ray indicating AVN
of femur head in hip joint

Regenerated
new bone after
OSSGROW[®]
treatment.



Bone Cell Therapy

OSSGROW® Bone Cell Therapy is a minimally invasive, patient specific regenerative medical treatment.

Patient's own stem cells are harvested and converted to bone forming cells called osteoblasts in the laboratory. Once the osteoblasts are grown and ready, they are implanted at the damaged site. This leads to the regeneration of new bone tissue helping in preservation and preventing in the collapse of the hip joint.



Scan to View



Stability and Mobility Program

After your treatment, your physical therapist in association with the orthopedic surgeon will provide you with a customized rehabilitation plan which will enable you to have a fast recovery.

STABILITY PHASE: Gradual loading of the joint. During this time, cells are undergoing rapid transformation into soft bone matrix.

MOBILITY PHASE: Start of full weight bearing and stationary exercises. During this time, the bone matrix converts to strong mature bone tissue. Nutritional guidelines must be followed for optimal results.



Benefits and Advantages



OSSGROW®
Bone Cell Therapy
is made from you,
for you.

‘MyOsssgrow’ offers patients exclusive support towards:



**Treatment
Education**



**Connect to a
OSSGROW®
specialist**



**Insurance
Support**

Scan to Chat



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Disclaimer: This booklet provides basic information on Avascular Necrosis of the hip joints and Bone Cell Therapy (OSSGROW®) for the treatment of Avascular Necrosis. The intent of this booklet is to educate its users about AVN Defects and Bone Cell Therapy (OSSGROW®) and it does not recommend self-management of health issues. Your use of this booklet does not establish a doctor-patient relationship. The information provided in this booklet is intended for general knowledge and is not an attempt to practice medicine or provide specific medical advice or a substitute for professional medical advice or treatment for medical conditions and it should not be used to make a diagnosis or to replace or overrule a qualified healthcare provider's judgment. Please consult your healthcare provider to diagnose any health problems and to answer any questions or concerns you may have regarding your condition. All efforts have been made to provide information as accurate as possible. Although the content of this booklet is generally reviewed and Bone Cell Therapy (OSSGROW®) is approved by Indian FDA, we do not make any representation or warranties or take any responsibility or liability with respect to the accuracy, applicability, timeliness, fitness or completeness of the contents of this booklet, and any other warranty, express or implied, or for any errors or omissions in this booklet, for the results obtained from its use, or for any damage or loss caused or alleged to be caused by reliance on the information available in this booklet. All the contents herein are the property of Regrow Biosciences Pvt. Ltd. and protected by the Indian Copyrights and other applicable laws. Any unauthorized copying, distribution or translation will constitute an infringement of copyright and other applicable act. Regrow and logos containing Regrow brand mark are trademarks of Regrow Biosciences Pvt. Ltd. Other brands are trademarks of Regrow Biosciences Pvt. Ltd. or their respective owners.