What is Osteoarthritis?

Osteoarthritis (OA) is a chronic bone and joint disease characterised by degeneration of joint cartilage that adversely impacts person's mobility and quality of life. In India, above 40 years of age overall prevalence of knee OA is 28.7%, was found to be more common in females (31.6%) than in males (28.1%).

Cartilage is the slippery tissue that covers the ends of bones in a joint. Healthy cartilage allows bones to glide over each other. It also helps absorb the shock of movement. In osteoarthritis, the top layer of cartilage breaks down and wears away. This allows bones under the cartilage to rub together. The rubbing causes pain, swelling, and loss of motion of the joint. Over time, the joint may lose its normal shape.



What are the Signs and Symptoms of Osteoarthritis?

They often develop slowly and worsen over time, these include:

Pain: Joint may hurt during or after movement which would restrict daily movements and quality of life. Daily movements which are restricted due to pain are climbing steps, prolonged walking, sitting in squatting position and driving.

Tenderness: Joint may feel tender when you apply light pressure to it.

Stiffness: Joint stiffness may be most noticeable when one wakes up in the morning or after a period of inactivity.

Loss of flexibility: One may not be able to move the joint through its full range of motion.

Grating sensation: One may hear or feel a grating sensation when using the joint.

What is GFC Therapy?

GFC Therapy is a Next Generation non-surgical therapy to accelerate natural healing of osteoarthritic joints. GFC stands for Growth Factor Concentrate. It is a pure, safe, highly concentrated growth factor preparation engineered from patient's own blood for faster & long lasting results. Various growth factors are stored in our platelets. Germanten Senior Orthopedicians have been able to extract these growth factors at high concentration as a Growth Factor Concentrate (GFC) in specially designed GFC Kits. GFC is injected into the joint with osteoarthritis, thus, delivering patient's own growth factors, with regenerative potential, at high concentration in the affected joint to enhance natural healing & regeneration.

Why GFC Therapy?



- 1. NextGeneration Therapy
- Innovative & advanced therapy
- Provides patient's own growth factors at high concentration



2. Highly Effective

 High concentration of growth factors promotes healing naturally & enhances damaged tissue regeneration



3. Safe

 Highly safe as it's prepared from patient's own blood



4. Quality

- Non Pyrogenic (No contamination)
- Zero RBCs and WBCs (WBCs & RBCs are risk for pain & inflammation)



4. Convenience

- Lunch time procedure
- Easy, rapid and consistent GFC preparation

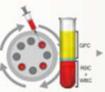
How GFC is prepared and administered?

GFC is prepared from the patient's own blood. ~ 4 ml of blood is taken in the kit and processed. This usually takes ~40 minutes. The final GFC output is injected in the affected joint, with proper aseptic precautions.

HARVEST > ACTIVATE > SEPARATE > RETURN









How GFC Therapy Works?

GFC therapy accelerates natural healing of affected joint by promoting tissue regeneration, enhancing cartilage synthesis & faster soft tissue healing. Thus, it helps in reducing pain and improving the quality of life.

What are the possible Side effects?

Since, GFC is prepared form patient's own blood, it is safe and has no negative effects. The reactions are generally injection related & of mild to moderate impact. These usually resolve in few days. Most of the patients tolerate GFC therapy very well.

What are the advantages of GFC therapy?

- Nonsurgical treatment
- Safe as prepared from patient's own blood
- Sterile, no chances of infection
- High concentration of patient's own growth
- factors for enhanced benefits
- Few, monthly sessions- No daily treatment

Who are eligible for a GFC therapy?

Patient of osteoarthritis with,

- Mild to moderate firm swelling around the joint
- Limited range of motion of the joint
- Pain with movement of the joint which gets worse especially towards the end of activity or end of day
- X-ray where cartilage loss is revealed by a narrowing of the space between the bones in the joint.
- Any other patient as per judgement of treating doctor

What are the other conditions GFC Therapy can be used?

GFC therapy can be used to treat various musculoskeletal injuries. This innovative and minimally invasive approach can treat a wide range of conditions and areas of pain, including:

- Hip and Ankle OA
- Hip, knee and shoulder pain
- Chronic tendonitis / tendinosis in the elbow, hip,or knee, foot and ankle
- Tennis Elbow
- Plantar Fasciitis
- Acute ligament and muscle injuries in athletes

How GFC Therapy Works?

CRITERIA	PRP	GFC
Prepared from One's Own Blood	Yes	Yes
Final Outcome is	Concentrated platelets containing growth factors that can stimulate cell reproduction and tissue regeneration	Only high concentration of growth factorsderived from platelet activation
No of Sessions Required	More	Less
Pain & Inflamation	Moderate Chance	Very low chance
Results	Variable & Take longer time	Optimum and takes less time
Consistency of Outcome Amount	Variable	Consistent



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