DR AMAN KHANNA · ORTHOPAEDICS · SURAT

Cartilage Preservation Ko Samajhein

Knee cartilage repair ke options — microfracture se OATS tak, simple Hinglish mein

Agar aapko bataya gaya hai ki aapke knee mein cartilage damage hai, toh confuse hona natural hai — "cartilage repair", "microfracture", "OATS" jaise terms aksar bina proper explanation ke use ho jaate hain. Yeh guide un basic sawaalon ko simple bhasha mein cover karta hai: cartilage apne aap kyun heal nahi hota, preservation procedures kya karte hain, aur yeh kis ke liye zyada relevant hote hain. Yeh general information hai — aapka apna treatment plan sirf ek qualified orthopaedic surgeon aapki examination aur imaging dekh kar hi bana sakte hain.

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Cartilage apne aap heal kyun nahi hota

Aapke knee joint ke ends pe ek smooth, chikna tissue hota hai jise articular cartilage kehte hain. Yeh cartilage bones ko aapas mein directly rub hone se bachata hai aur movement ko smooth banata hai.

Problem yeh hai ki cartilage mein apni blood supply nahi hoti – jaise skin ya bone mein hoti hai. Bina blood supply ke, body us area mein naye healthy cells bhi easily nahi bhej pati jo damage ko repair kar sakein.

Isliye agar cartilage mein ek defect ho jaye – chahe injury se ho ya gradual wear se – toh woh apne aap thik nahi hota jaise skin ka cut thik ho jata hai. Yeh gap dheere dheere pain, swelling, ya knee ke "give way" hone jaisa feeling de sakta hai.

Microfracture kya hota hai

Microfracture ek arthroscopic (keyhole) procedure hai, jo chhote, focal cartilage defects ke liye use hota hai. Surgeon damaged cartilage ke neeche wali bone mein bahut chhote-chhote holes banate hain.

Yeh holes bone marrow tak pahunchte hain, jahan se blood aur marrow cells nikal kar us defect area ko bhar dete hain. Yeh cells dheere dheere ek tissue banate hain jise fibrocartilage kehte hain.

Fibrocartilage original hyaline cartilage jitna strong ya durable nahi hota, lekin yeh gap ko cover karke joint surface ko relatively smooth bana sakta hai. Procedure ke baad ek structured rehab protocol follow karna padta hai.

OATS aur cartilage transfer procedures

OATS ka matlab hai Osteochondral Autograft Transfer System. Isme surgeon aapke hi knee ke kisi kam weight-bearing area se healthy cartilage-bone plug (graft) nikaal kar defect wali jagah pe transfer karte hain.

Kyunki yeh graft aapka apna hyaline cartilage hota hai, iski structure microfracture se bane fibrocartilage se different hoti hai.

Kuch cases mein, jab defect bada ho ya patient ka apna tissue kaafi na ho, toh donor (allograft) tissue ka option bhi discuss kiya ja sakta hai. Yeh decision poori tarah surgeon aapki specific case dekh kar hi lenge.

Iske liye typically kaun candidate hota hai

Cartilage preservation procedures har patient ke liye suitable nahi hote. In general, yeh options un patients mein consider kiye jaate hain jo relatively younger hain, jinka defect focal hai – matlab ek chhota, well-defined area, poore joint mein spread hui degeneration nahi – aur jinki knee overall stable hai, yaani ligaments aur alignment normal.

Agar knee mein pehle se widespread arthritis hai, ya alignment ya ligament ka koi unaddressed issue hai, toh yeh procedures utni effective nahi rehte.

Candidacy ka decision sirf ek factor pe nahi hota – age, activity level, defect ka size aur location, aur overall joint health – yeh sab mila kar hi surgeon batayenge ki aapke liye kaunsa option, agar koi hai, suitable hai.

Preservation ka matlab — delay karna, khatam karna nahi

Yeh samajhna zaroori hai ki cartilage preservation ka goal condition ko "cure" karna nahi hota. Iska aim hota hai joint ki natural surface ko jitna ho sake protect karna, symptoms manage karna, aur future mein arthritis develop hone ki process ko delay karna.

Yeh guarantee nahi deta ki arthritis kabhi nahi hogi – knee ek complex, weight-bearing joint hai, aur time ke saath wear-and-tear ek natural process hai.

Preservation procedures ka intent hota hai aapko zyada active years dena aur bade joint replacement surgery ki zaroorat ko jitna ho sake taalna. Har patient ka response defect ke size, location, aur rehab commitment par depend karta hai.

Recovery aur rehab mein kya expect karein

Cartilage procedures ke baad recovery ek gradual process hoti hai. Shuru ke weeks mein weight-bearing usually restricted rehta hai, aur physiotherapy iska important part hota hai – range of motion aur strength dheere dheere build ki jati hai.

Timeline har patient ke liye alag hoti hai, yeh defect ke size, procedure type, aur individual healing par depend karta hai – isliye koi fixed number of weeks batana sahi nahi hoga.

Rehab protocol follow karna procedure jitna hi important hota hai, kyunki isse repaired ya transferred tissue ko properly mature hone ka time milta hai.

Kab doctor se milein

Agar aapko knee mein persistent pain, swelling, locking, ya "giving way" ka feeling ho raha hai, toh zaroori hai ki aap ek qualified orthopaedic surgeon se apni knee ka proper clinical examination aur imaging ke through evaluation karwayein.

Yeh guide sirf general information ke liye hai — kisi bhi individual case ka diagnosis ya treatment recommendation nahi hai. Online ya phone consultation sirf guidance ke liye hoti hai; yeh physical examination ka substitute nahi ho sakti.

> Agar aapko severe pain, sudden swelling, ya knee ka bilkul use na kar paana jaisi emergency symptoms hain, toh please turant apne nearest hospital jaayein — online consultation ka wait na karein.

Turant doctor se milein agar —

- Knee mein sudden ya severe swelling
- Knee ka "locking" ho jaana ya move na kar pana
- Baar-baar knee ka "give way" hona
- Severe pain jo rest karne par bhi kam na ho

Apne surgeon se ye poochhein

1. Mere cartilage defect ka size aur location kya hai, aur kya main preservation procedure ke liye candidate hoon?
2. Meri age aur activity level dekhte hue, microfracture ya OATS mein se kaunsa option mere liye zyada relevant ho sakta hai?
3. Agar meri knee mein alignment ya ligament issue bhi hai, toh kya pehle usse address karna padega?
4. Rehab aur physiotherapy protocol kaisa hoga, aur activity resume karne mein roughly kitna time lag sakta hai?
5. Agar preservation procedure suitable na ho, toh mere paas kaunse alternative options hain?
6. Long-term mein mujhe apni knee ki kya dekhbhaal karni hogi?

DM 89808 22922 — second opinion · appointment (clinic ya online)

Prish Hospital, Vesu – 12-2pm · Mahavir Hospital, Athwa Gate – 4-6pm

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Yeh guide sirf general patient education ke liye hai aur kisi bhi specific case ka diagnosis ya treatment advice nahi hai. Apni cartilage ya knee problem ke liye kripya qualified orthopaedic surgeon se hi consult karein.

Written by Dr Aman Khanna, MS Orthopaedics – Fellowship trained in Sports Medicine (Lyon, France and Mumbai) and Trauma (Ganga Hospital, Coimbatore). Gujarat Medical Council Reg. No. G-30260.

Consultations: Prish Hospital, Vesu (12–2 pm) aur Mahavir Hospital, Athwa Gate (4–6 pm), Surat. Appointment/DM: 89808 22922.

Online ya teleconsultation sirf guidance ke liye hai, yeh physical examination ka substitute nahi hai. Emergency ya severe symptoms ki condition mein turant apne nearest hospital jaayein.

Online consultation sirf guidance ke liye hai aur physical examination ka poora substitute nahi hai – emergency ya severe symptoms mein turant nearest hospital jayein.

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Sources – Buckwalter & Mankin, "Articular Cartilage: Degeneration and Osteoarthritis, Repair, Regeneration, and Transplantation," JBJS 1997 · Microfracture for cartilage repair in the knee: a systematic review of the contemporary literature – PubMed (https://pubmed.ncbi.nlm.nih.gov/30659314/) · Microfracture for medium size to large knee chondral defects has limited long-term efficacy: A systematic review – PMC (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC11490187/) · Osteochondral Allografts for Large Osteochondral Lesions of the Knee Joint – PMC (https://pmc.ncbi.nlm.nih.gov/articles/PMC9034800/) · Arthroscopic Osteochondral Autograft Transplantation (OAT) – Mid-Term Clinical Outcome – PMC (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC12368451/) · Osteochondral autograft and allograft for knee cartilage injuries – international Delphi consensus statement – ScienceDirect (https://www.cartilagejournal.org/article/S2667-2545(24)00027-1/fulltext)