

PATIENT INFORMATION BOOKLET

Meniscal Root Repair

Knee preservation through repair of the meniscal anchor

A clear guide to your diagnosis, arthroscopic surgery, recovery and rehabilitation

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About this booklet

This booklet explains meniscal root tears and arthroscopic meniscal root repair. It describes why the meniscus matters, how suitability for repair is assessed, what happens during surgery, the main benefits and risks, and what recovery may involve. It is intended to support the discussion you have with Mr Kenan Dehne and your physiotherapist.

Important

Your individual plan may differ from the general pathway in this booklet. The type of tear, cartilage condition, knee alignment, other procedures and your general health can all alter the operation and rehabilitation. Always follow the instructions given directly by your surgical team.

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Quick guide

The aim

To reattach the torn meniscal root to its normal bony footprint and help restore the meniscus's load-sharing function.

The approach

Usually a keyhole operation using sutures passed through the meniscus and secured through a small tibial tunnel.

Early protection

Crutches, restricted weight bearing and a brace may be required while the repair begins to heal.

Rehabilitation

A structured, individual physiotherapy programme is essential. Return to impact and pivoting activities is gradual.

Understanding the meniscus and its root

The knee has two menisci: a medial meniscus on the inner side and a lateral meniscus on the outer side. These C-shaped pads of fibrocartilage help distribute load, absorb shock, support stability and protect the smooth cartilage covering the joint surfaces.

Each end of a meniscus is anchored to the top of the shin bone by a strong attachment called a **meniscal root**. When a root tears or pulls away, the meniscus may move outwards, known as extrusion, and can no longer distribute pressure normally. Research shows that a complete root tear can produce joint loading similar to removal of the meniscus, which may accelerate cartilage wear and osteoarthritis. [\[1\]](#) [\[2\]](#)

Why the root matters

Intact root
Stable meniscus



Root tear
Meniscus extrudes



Repair
Function supported

How root tears happen

In younger people, a root tear may occur during sport or alongside an anterior cruciate ligament (ACL) injury. In middle age and later life, a medial root tear can occur in a degenerative meniscus after a relatively minor movement such as a deep squat, kneeling, turning or stepping awkwardly. Some people notice a sudden pop; others develop pain without a clear injury. [\[2\]](#)

Common symptoms

- Pain along the inner or outer joint line
- Swelling or a feeling of fullness
- Reduced confidence when loading the knee
- Pain with squatting, stairs or rising from a chair
- A sudden painful pop during a minor movement
- Sometimes catching; true locking is less common

Assessment and diagnosis

Diagnosis begins with your history and a clinical examination. Mr Dehne will ask how symptoms started, where pain is felt, whether the knee swells and how the problem affects work, sleep, walking and exercise. Examination assesses joint-line tenderness, swelling, movement, alignment, stability and pain with loaded flexion.

Imaging

Weight-bearing X-rays help assess alignment and the amount of existing osteoarthritis. MRI is the main scan used to identify a root tear, meniscal extrusion, bone stress changes, cartilage damage and associated ligament injury. Even with MRI, the final tear pattern and tissue quality may only be fully confirmed during arthroscopy. [1]

Who may benefit from repair?

Repair is most often considered when the root tear is repairable, the meniscal tissue is of sufficient quality and there is not advanced arthritis throughout the affected compartment. Age alone does not decide suitability. Symptoms, activity goals, cartilage condition, limb alignment, medical fitness and willingness to follow a protected rehabilitation programme are considered together.

Factors supporting repair

A symptomatic complete or near-complete root tear; limited or localised cartilage wear; repairable tissue; acceptable or correctable alignment; and the ability to use crutches and follow rehabilitation.

Factors that may limit repair

Advanced widespread osteoarthritis; severe uncorrected malalignment; poor tissue quality; a long-standing painless tear; significant medical risk; or inability to protect the repair after surgery.

Alternatives to surgery

Not every root tear requires or benefits from repair. Depending on your knee, alternatives may include activity modification, physiotherapy, weight management where appropriate, simple pain relief discussed with your pharmacist or doctor, an unloading brace, injection treatment, or treatment directed at established arthritis. Partial meniscectomy may occasionally be considered for persistent mechanical symptoms when repair is unsuitable, but it does not restore the root's load-sharing function. Your options will be discussed individually.

Shared decision-making

The decision to proceed should balance the chance of improving pain and function against the commitment of surgery and protected rehabilitation. No operation can guarantee symptom relief or prevent future arthritis.

What the operation involves

Meniscal root repair is usually performed under general anaesthesia as a day-case or short-stay procedure. Small keyhole incisions are made around the knee and a camera is introduced. The joint is inspected, the root tear is confirmed and the cartilage, ligaments and remaining meniscus are assessed.

Typical surgical steps

1

Arthroscopic assessment

The joint is examined and the tear pattern, tissue quality and cartilage condition are confirmed.

2

Preparing the repair site

The bony root footprint and torn meniscal edge are carefully prepared to encourage healing.

3

Passing the sutures

High-strength sutures are passed through healthy meniscal tissue using specialised keyhole instruments.

4

Restoring the root position

A small tunnel is made through the upper tibia so the sutures can draw the root back to its anatomical footprint.

5

Securing the repair

The sutures are tensioned and secured. The repair is checked before the portals are closed and dressings are applied.

If another problem is found, such as an ACL injury or a focal cartilage lesion, an additional procedure may be discussed or performed when previously agreed. If the meniscus is unexpectedly irreparable, Mr Dehne will use the safest appropriate alternative agreed during consent.

Anaesthetic and immediate recovery

The anaesthetist will discuss the planned anaesthetic and pain-control strategy. After surgery, you will be monitored until awake, comfortable and safe to mobilise. A physiotherapist or nurse will explain crutch use, brace settings if required, exercises, wound care and medicines before discharge. You must arrange safe transport home and follow the anaesthetic team's guidance about supervision after discharge.

Knee preservation

The purpose of repair is to preserve meniscal tissue and support more normal load distribution. Healing takes time, so protecting the repair in the early weeks is an essential part of the treatment—not an optional extra.

Expected benefits and limitations

The intended benefits are to re-anchor the meniscus, improve its ability to distribute load, reduce pain and swelling, improve function, and reduce the risk of rapid deterioration associated with an untreated root-deficient meniscus. Published reviews report improved patient-reported outcomes after repair and suggest that repair may slow degenerative change compared with meniscectomy or non-operative management in appropriately selected patients. [1] [2]

However, recovery is gradual and not every repair heals. Existing cartilage wear cannot be reversed, meniscal extrusion may persist, and symptoms may not disappear completely. Some patients will still develop osteoarthritis and may require further treatment later. Your result depends on the original injury, cartilage health, alignment, healing biology, rehabilitation and activity demands.

Main risks and possible complications

All operations carry risk. The following list supports, but does not replace, your personalised consent discussion.

Repair-related risks

Incomplete healing or re-tear; persistent pain, swelling, stiffness or weakness; meniscal extrusion; inability to return to previous activity; or need for further arthroscopy or arthritis treatment.

General surgical risks

Infection; bleeding or wound problems; blood clot in the leg or lung; anaesthetic reaction; numbness around scars; injury to nerves, vessels or cartilage; complex regional pain syndrome; or very rarely serious medical complications.

Reducing risk

You can help by giving a complete medical and medication history, stopping smoking, managing diabetes, following fasting and medicine instructions, using prescribed blood-clot prevention, protecting the repair, keeping wounds clean and dry, and completing your rehabilitation. Tell the team before surgery if you have an infection, broken skin near the knee, new illness or any change in medication.

Consent

Please ask questions before signing the consent form. You should understand the expected benefits, important risks, alternatives and likely recovery. You may change your mind at any time before the operation.

Preparing for surgery

Good preparation makes the first days at home safer and easier. Your pre-assessment team will review your health, medicines, allergies and anaesthetic requirements. Tests may include blood tests, an ECG or other investigations according to your health and hospital policy.

Before the day

- Read your hospital instructions and confirm when to stop eating and drinking.
- Ask specifically about blood-thinning medicines, diabetes medicines and supplements; do not stop prescribed medicines without advice.
- Arrange transport home and practical help for the early recovery period.
- Prepare a clear route through your home and move frequently used items within easy reach.
- Practise safe crutch use if this has been arranged before surgery.
- Plan time away from work and discuss driving restrictions.
- Bring your brace and crutches if the hospital has asked you to do so.

What to bring

Bring your admission information, an up-to-date medication list, loose clothing that fits over a dressing or brace, supportive footwear, mobility aids if supplied, and contact details for the person taking you home. Leave valuables at home.

Your home setup

Movement

Remove loose rugs and clutter.
Plan how you will manage stairs, the bathroom and meal preparation while using crutches.

Rest

Create a comfortable place where the leg can be supported and where medicines, water and a phone are within reach.

Support

Arrange help with shopping, household tasks, dependants and pets, especially while weight bearing is restricted.

Fitness for surgery

Contact the hospital before attending if you develop fever, cough, vomiting, diarrhoea, a skin infection, a wound near the knee, or another significant illness.

The first two weeks

Your immediate priorities are to protect the repair, control pain and swelling, maintain circulation, regain quadriceps activation and keep the wound healthy. Use the brace and crutches exactly as instructed. Root repairs often require restricted weight bearing and limited knee bending in the early phase, but your personal instructions take priority. [3]

Pain and swelling

Take prescribed medicines according to the label. Elevate the leg as advised and use ice only with a protective cloth, avoiding direct contact with skin or the wound. Mild swelling and bruising are expected. Excess activity commonly increases swelling; reduce activity and follow the advice given if the knee becomes more swollen.

Wound care

Keep dressings clean and dry and follow the hospital's instructions about changing them and showering. Do not soak the wound until it is fully healed and permission has been given. Do not apply creams or antiseptics unless advised. Contact the team if redness, heat, drainage or pain around the wound is increasing.

Early movement

- Perform ankle-pumping exercises regularly while awake unless advised otherwise.
- Complete the prescribed quadriceps and straight-leg exercises with correct technique.
- Only bend the knee within the range permitted by the surgical team.
- Avoid twisting, pivoting, deep squatting and unplanned loading of the operated leg.
- Attend physiotherapy and follow one agreed programme rather than adding exercises independently.

Blood-clot awareness

Seek urgent medical advice for new calf pain or swelling, especially if one leg becomes noticeably larger. Call 999 for sudden chest pain, severe breathlessness, coughing blood, collapse or another medical emergency.

Rehabilitation pathway

The repair must heal securely to bone before it can tolerate unrestricted loading. Rehabilitation therefore progresses in stages. Published protocols vary, and research emphasises the importance of protecting the repair and following a structured programme. [2] [3]

Weeks 0–2

Protect and settle

Use the brace and crutches as instructed. Weight bearing is commonly restricted. Work on swelling control, full extension, safe mobility and early muscle activation. Flexion may be limited to protect the root.

Weeks 2–6

Protect healing

Continue the prescribed brace and loading restrictions. Progress controlled movement and low-load exercises under physiotherapy supervision. Avoid deep knee bending, pivoting and loaded twisting.

Weeks 6–12

Restore movement and gait

If healing and clinical review are satisfactory, progress towards full weight bearing, reduce brace or crutch use, restore movement and build basic strength and balance.

Months 3–6

Strength and function

Develop lower-limb strength, control and endurance. Low-impact cardiovascular exercise and more demanding functional tasks are introduced progressively.

Months 6–9+

Return to impact

Running, jumping, pivoting sport and heavy occupational demands require surgeon and physiotherapist clearance. Timing depends on strength, movement quality, symptoms and any additional procedures.

Milestones, not deadlines

Progression should be based on healing and function rather than the calendar alone. Persistent swelling, joint-line pain, loss of movement, poor control or an altered gait may mean that the programme needs to slow down. Do not compare your recovery with another patient's timetable.

Work, driving and sport

Desk-based work may be possible earlier than manual work, but travel, elevation, medication and safe mobility must be considered. You must not drive while using a brace that restricts control, while taking impairing medication, or until you can perform an emergency stop safely and your insurer's requirements are met. Return to sport is gradual and requires clearance; high-impact or pivoting activity usually comes much later than ordinary walking.

Warning signs and when to seek help

Most recoveries are uncomplicated, but early advice is important when something feels wrong.

Contact the surgical team or NHS 111

Increasing wound redness, heat, swelling or discharge; fever or feeling significantly unwell; pain that is worsening despite prescribed medication; persistent vomiting; new calf pain or swelling; sudden loss of movement; a new injury to the operated knee; or concerns about the brace, circulation or sensation.

Call 999 or attend A&E

Severe breathlessness, chest pain, coughing blood, collapse, signs of a severe allergic reaction, uncontrolled bleeding, or a cold, pale foot with rapidly worsening numbness or weakness.

Frequently asked questions

Will the repair definitely heal?

No. The operation is designed to create the best possible conditions for healing, but healing cannot be guaranteed. Tissue quality, cartilage condition, smoking, health, injury pattern, protection and rehabilitation all influence the result.

Why are crutches and a brace sometimes needed for several weeks?

The repaired root must heal back to bone. Early excessive load, twisting or deep flexion can stress the sutures and repair site before biological healing is established.

Will surgery prevent arthritis?

Repair aims to restore function and reduce abnormal loading, but it cannot reverse existing cartilage damage or guarantee that arthritis will not progress. It is a knee-preservation procedure rather than a cure for all future degeneration.

When can I return to sport?

Return depends on the sport, associated procedures, strength, movement quality, swelling and confidence. Impact and pivoting activities require specific clearance and are introduced much later than ordinary walking.

Who should I contact with questions?

For clinical concerns after surgery, use the hospital or surgical-team contact details supplied at discharge. For general JointClinics enquiries, telephone **07553 209288** or visit jointclinics.co.uk.

Follow-up and your personal plan

Follow-up appointments allow the team to inspect the wounds, review pain and swelling, confirm brace and weight-bearing instructions, monitor movement and strength, and adapt rehabilitation. Bring your questions and tell the team about any setbacks or change in symptoms.

Your key details

Operation date	
Hospital	
Procedure performed	
Brace instructions	
Weight-bearing status	
Movement restriction	
First follow-up	
Physiotherapy contact	

Questions to ask at review

- Is the repair healing as expected?
- May I change my brace, crutch or weight-bearing routine?
- What movement and strengthening should I focus on next?
- When may I return to work, drive, cycle, run or resume sport?
- What symptoms should prompt me to contact the team?

Medical information notice

This booklet provides general educational information and does not replace personalised medical advice, examination, consent or discharge instructions. If information in this booklet differs from instructions given by your surgical team, follow your surgical team's instructions. In an emergency, call 999.

JointClinics contact

Appointments and enquiries

Telephone: 07553 209288

Website: jointclinics.co.uk

Email: info@jointclinics.co.uk

Specialist consultation

Mr Kenan Dehne

Website: kenandehne.com

Please use your discharge contacts for urgent post-operative concerns.

References

1. Pache S, Aman ZS, Kennedy M, et al. **Meniscal Root Tears: Current Concepts Review.** Archives of Bone and Joint Surgery. 2018;6(4):250–259. [pmc.ncbi.nlm.nih.gov/articles/PMC6110430](https://pubmed.ncbi.nlm.nih.gov/articles/PMC6110430)
2. Banovetz MT, Roethke LC, Rodriguez AN, LaPrade RF. **Meniscal Root Tears: A Decade of Research on Their Relevant Anatomy, Biomechanics, Diagnosis, and Treatment.** Archives of Bone and Joint Surgery. 2022;10(5):366–380. [pmc.ncbi.nlm.nih.gov/articles/PMC9194705](https://pubmed.ncbi.nlm.nih.gov/articles/PMC9194705)
3. University of Virginia Sports Medicine. **Meniscal Root Repair Post-operative Rehabilitation Protocol.** [med.virginia.edu — Root Repair Rehabilitation Protocol](https://med.virginia.edu/root-repair-rehabilitation-protocol)

Document control

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