

TRAUMA

Tibial plateau fractures

Fractures of the top of the shinbone involving the knee's weight-bearing surface, sometimes with ligament or meniscal injury.

Patient information, treatment choices, risks, recovery and a space to record your individual plan.

Understanding your injury

The tibial plateau is the upper surface of the shinbone at the knee. A fracture can split or depress this surface and may injure surrounding ligaments, the meniscus or soft tissues. Examination assesses swelling, wounds, knee alignment, circulation and nerves. X-rays and CT commonly define the joint injury. MRI is used selectively to investigate associated soft-tissue damage or a suspected fracture that is not visible on X-rays.

Treatment and the procedure

Some stable, well-aligned injuries are managed with a brace or cast and restricted loading. Displaced or unstable injuries may need repositioning and fixation with plates and screws. Supporting a depressed joint surface may require graft or a bone substitute. Severe swelling or soft-tissue damage may lead to temporary external fixation before definitive surgery. The plan considers the fracture, skin, associated injuries, health and previous function.

Benefits, risks and expectations

If surgery is planned, discuss bleeding, anaesthetic risks and complex regional pain syndrome as well as the risks specific to your injury. Your general health and the extent of surgery affect your personal risk.

- Treatment aims to restore knee alignment and stability, and support healing of the joint surface. It cannot remove all cartilage damage caused by the injury.
- Discuss infection, wound problems, nerve or vessel injury, compartment syndrome, blood clots, delayed healing, nonunion, loss of alignment, metalwork symptoms and further surgery.
- Stiffness, persistent pain, instability or post-traumatic arthritis can occur despite healing. Recovery of strength and walking endurance takes longer than initial bone healing.

RECOVERY AND YOUR CONSULTATION

Tibial plateau fractures

Use this guidance to prepare your individual plan with the treating team.

Rehabilitation and aftercare

Your written plan specifies weight bearing, permitted knee movement and brace settings. Do not change the brace limits or advance loading without approval. Physiotherapy teaches safe transfers, walking aids and the exercises appropriate to your restrictions. Protect the wound, check skin beneath the brace as instructed and follow clot-prevention advice. Arrange practical help and discuss stairs before discharge. Return to work and sport depends on symptoms, healing and functional assessment.

When to get urgent help

- Attend A&E for sudden severe pain, rapidly increasing tight swelling, or a cold, pale, numb or weak foot. Report fever, wound discharge or spreading redness promptly.
- New calf pain or swelling needs urgent assessment. Call 999 for chest pain or severe breathlessness.

Your consultation

Ask how the joint surface and ligaments are affected, why surgery or protected care is recommended and what loading is permitted. Consent and rehabilitation are tailored to your injury.

Sources and further reading

AAOS: Fractures of the proximal tibia

<https://www.orthoinfo.org/diseases--conditions/fractures-of-the-proximal-tibia-shinbone/>

King's College Hospital: Tibial plateau fracture physiotherapy guide

https://www.kch.nhs.uk/wp-content/uploads/2025/05/4509-Tib-Plat-final-draft-v3_FINAL.pdf

Royal Cornwall Hospitals: Tibial plateau fracture

<https://fractureclinic.royalcornwallhospitals.nhs.uk/knee-injuries/tibial-plateau-fracture/>

NHS: Compartment syndrome

<https://www.nhs.uk/conditions/compartment-syndrome/>

NHS: Pulmonary embolism

<https://www.nhs.uk/conditions/pulmonary-embolism/>

CLINICIAN-COMPLETED WORKSHEET

Your consent discussion

Tibial plateau fractures

This blank worksheet is not an executed consent. Complete it after clinical assessment with the treating clinician. The hospital or clinic must also complete its required consent process before treatment.

Patient name / identifier, date of assessment and communication support needed

Diagnosis, affected side / site and the proposed procedure or treatment

Reasonable alternatives discussed, including the option of no treatment

Expected benefit for this patient, limits of treatment and uncertainties

Material risks and personal risk factors - record the risks that matter to this patient

Patient's priorities, questions, understanding and agreed decision / time to consider

Treating clinician name, role and signature / date

Patient / representative name, signature and date - acknowledgement of discussion only

A signature here records a discussion; it does not replace a completed treatment consent form. You may ask further questions or change your decision before treatment.

CLINICIAN-COMPLETED WORKSHEET

Your rehabilitation and aftercare plan

Tibial plateau fractures

Complete this plan after assessment. The advice must match your injury or operation, imaging, wound and medical history. Do not start limb loading, remove protection or change medicines using an uncompleted worksheet.

Limb loading / weight bearing, walking aids, sling / cast / boot / brace and protection

Wound / dressing care, bathing, elevation and swelling advice

Medicines, pain relief, clot prevention and any treatment-specific restrictions

Exercises, physiotherapy, range of movement and progression criteria

Work, driving, sport and daily activities - individual restrictions / review points

Review date, imaging / tests, named clinician and routine / out-of-hours contact details

Clinician completing this plan, signature / date and patient questions

When to seek urgent help

Attend A&E for sudden severe pain, rapidly increasing tight swelling, or a cold, pale, numb or weak foot. Report fever, wound discharge or spreading redness promptly. New calf pain or swelling needs urgent assessment. Call 999 for chest pain or severe breathlessness.