

Fig. a

**Definitions and terminology:**

<b>Degenerative meniscus and meniscal tears</b>	<b>Classification of meniscal lesions</b>
<ul style="list-style-type: none"> <li>A degenerative meniscus develops progressively with degradation of meniscal tissue and this may be revealed by intra-meniscal high signal on MRI imaging.</li> <li>A meniscal 'tear' is a defect or split in the meniscocapsular complex, which can occur in a degenerative or non-degenerative meniscus.</li> <li>Degenerative meniscal lesions (high signal or tear) are frequent in the general population and are often incidental findings on knee MRI. There may or may not be a memorable history of knee injury.</li> </ul>	<b>TARGET (Treatable Lesion: meniscal surgery may be indicated based on appearance)</b> <ul style="list-style-type: none"> <li>"Bucket-handle" tear: a longitudinal tear or peripheral separation involving MORE than 25% of meniscus length (either displaced or undisplaced).</li> <li>Displaced meniscal tear: a meniscal lesion with meniscal fragments displaced from their usual anatomical position.</li> <li>Meniscal root failure: a complete tear or avulsion of the meniscal root.</li> </ul>
<b>Approach to imaging (secondary care imaging protocol)</b>	<b>POSSIBLE TARGET (Indeterminate Lesion: meniscal surgery may be indicated based on appearance)</b>
<ol style="list-style-type: none"> <li>Plain radiographs (weight-bearing AP and lateral +/- Rosenberg +/- skyline view) are the first line investigation when OA is suspected.</li> <li>In patients where OA is not suspected, MRI is the first line investigation*.</li> <li>If plain radiographs do not demonstrate advanced osteoarthritis (Kellgren-Lawrence-L 4) and meniscal symptoms predominate, then MRI imaging is indicated.</li> </ol> <p>*In certain cases, when clinical findings are conclusive (e.g. locked knee), clinicians may apply their own judgement on the need for MRI imaging.</p>	<ul style="list-style-type: none"> <li>Undisplaced meniscal tears: <ul style="list-style-type: none"> <li>Radial tear: <ul style="list-style-type: none"> <li>Radial flap tear: a vertical and oblique meniscal tear lesion (parrot beak type).</li> <li>Complete radial split tear: a radial meniscal tear lesion that extends to the meniscocapsular junction.</li> <li>Partial radial split tear: a radial tear that does not extend to meniscocapsular junction.</li> </ul> </li> <li>Horizontal tear +/- cyst: <ul style="list-style-type: none"> <li>Horizontal cleavage tear and meniscal cyst: a horizontal meniscal cleavage lesion that is associated with a meniscal cyst.</li> <li>Horizontal cleavage tear in isolation: meniscal horizontal cleavage lesion without an associated cyst.</li> </ul> </li> <li>Complex meniscal lesion: a meniscal lesion with more than 1 plane of tear in continuity.</li> <li>Short longitudinal tear: a longitudinal meniscal tear lesion involving LESS than 25% of the overall meniscus length.</li> </ul> </li> </ul>
<b>Classification of structural osteoarthritis (OA)</b>	<b>NO TARGET (Unlikely Treatable: meniscal surgery not indicated based on appearance)</b>
<ul style="list-style-type: none"> <li><b>Early or No Structural OA:</b> Kellgren-Lawrence Grade 0 or 1 on plain radiographs and/or normal MRI, or MRI with possible chondral signal change and no chondral loss.</li> <li><b>Mild to Moderate Structural OA:</b> Kellgren-Lawrence Grade 2 or 3 on plain radiographs and/or partial thickness chondral loss on MRI.</li> <li><b>Advanced to End-stage Structural OA:</b> Kellgren-Lawrence Grade 4 on plain radiographs and/or significant areas of full thickness chondral loss on MRI*.</li> </ul> <p>*Excluding cases of contained full thickness cartilage / osteochondral defects.</p>	<ul style="list-style-type: none"> <li>Contour abnormality: a meniscus with an abnormal edge contour and very minor tear only.</li> <li>Isolated meniscal extrusion: extension of the meniscus beyond the tibial margins without any associated meniscal tear.</li> <li>No tear.</li> </ul>
<b>Classification of symptoms and signs</b>	
<b>MENISCAL: Strongly Suggestive of a Treatable Meniscal Lesion</b>	
<ul style="list-style-type: none"> <li>Locked knee: sudden onset, complete mechanical block to flexion or extension of the knee, detected on clinical examination and which does not resolve despite adequate analgesia.</li> <li>Locking: An intermittent block to normal range of movement of the knee (commonly a block to extension) with an associated unlocking movement. Knee returns to near normal after unlocking.</li> <li>Catching: the sensation of something intermittently out of place in the knee and interfering with joint movement.</li> <li>Tender, palpable meniscal tissue: the finding on clinical examination of a discrete, tender lump, close to the joint line.</li> </ul>	
<b>POSSIBLY MENISCAL: Potentially Suggestive of a Treatable Meniscal Lesion</b>	
<ul style="list-style-type: none"> <li>Episodic sharp knee pain: sharp, intermittent knee pain, occurring with sudden onset.</li> <li>Intermittent knee swelling: symptom of periodic swelling of the knee, lasting for hours to days, that has occurred over a period of weeks or months.</li> <li>Knee effusion: a clinically detectable intra-articular fluid collection of the knee joint.</li> <li>Activity avoidance: the active avoidance of specific, potentially provoking, movements or activity e.g. twisting.</li> <li>Squatting pain: knee pain that is exacerbated by deep flexion when weight bearing (may be reported by the patient or elicited during clinical examination).</li> <li>Clicking +/- pain: Clicking: a clicking noise or sensation when moving the knee. Painful clicking: a clicking noise or sensation when moving the knee that is associated with pain.</li> <li>Meniscal provocation tests: e.g. McMurray's, Apley's, Thessaly.</li> <li>Joint line point tenderness: point tenderness on the joint line, detected on clinical examination.</li> <li>Posteromedial joint line tenderness: tenderness on deep palpation of the joint line, from mid medial collateral ligament posteriorly, corresponding to the location of the commonest posteromedial degenerative meniscal lesion.</li> </ul>	
<b>ARTHRITIC: Osteoarthritic Symptoms and Signs</b>	
<ul style="list-style-type: none"> <li>Inactivity pain and stiffness: the temporary, subjective sensation of stiffness on initiation of movement, often with pain, after periods of immobility (e.g. sleeping, prolonged sitting).</li> <li>Crepitus: crunching, grating or creaking detected clinically on active movement of the knee.</li> <li>Bony enlargement: abnormal shape of the normal knee bony contour visible on inspection or detected on clinical examination.</li> <li>Bony tenderness: tenderness on clinical palpation of the bone adjacent to the joint.</li> <li>Aching pain: constant knee pain during and after activity.</li> </ul>	

Fig. b

**Clinical Case Examples:**

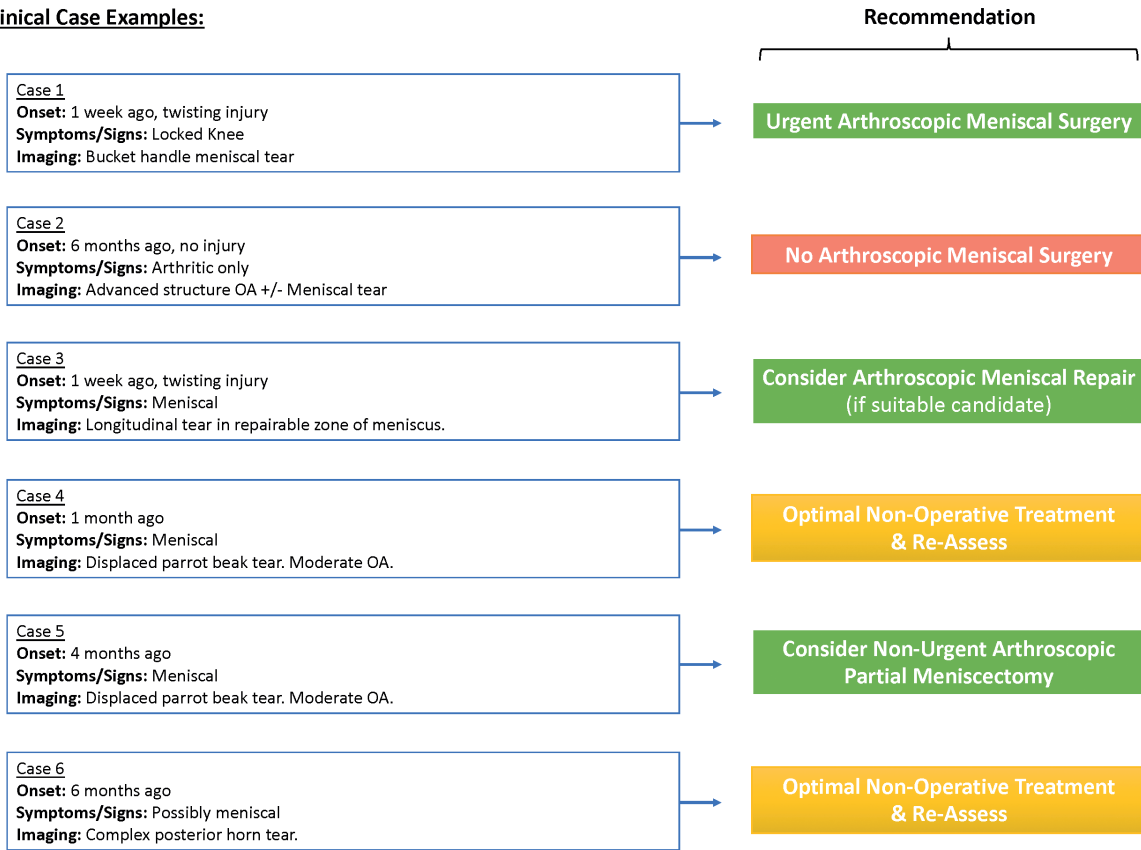


Fig. c

Pages a) 1, b) 2, and c) 3 of the British Association for Surgery of the Knee (BASK) Meniscal Tear Management Guideline.