


Orthopaedic and Sports Injuries Services "OASIS"

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Examination of Knee Joint My Way

I enjoy the stimulus of teaching I believe it benefits the tutor as well as the student I consider it an integral and vital part of my own continuing education.

There are numerous ways to examine a Knee

The following method is my way of doing a systematic, thorough but efficient examination, I have tried to keep it simple so it can reproduced without a hitch. I do not claim it is a complete process but certainly one that will give a lot of information.

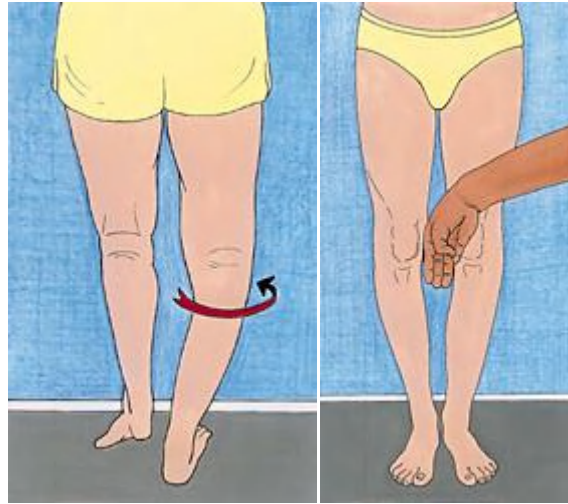
Introduction

As always, wash your hands, explain the examination and gain informed consent. Always let the patient know what you are about to do, show them what you want them to do repeat instructions and respect their individuality.

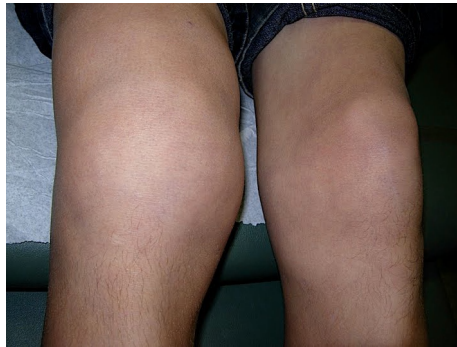
Follow the old age algorithm, Look, Feel Move.

The patient should be examined standing up, walking, and lying supine. It is essential that a comparison be made throughout with the unaffected side.

Firstly, ask the patient to walk for you. Observe any limp or obvious deformities such as scars or muscle wasting. You should also check if the patient has a varus (bow-legged) or valgus (knock-knees) deformity. Also observe from behind to see if there are any obvious popliteal swellings such as a Baker's cyst.

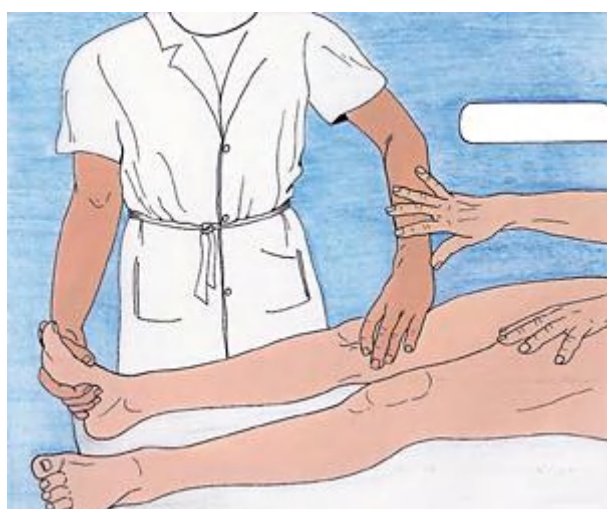
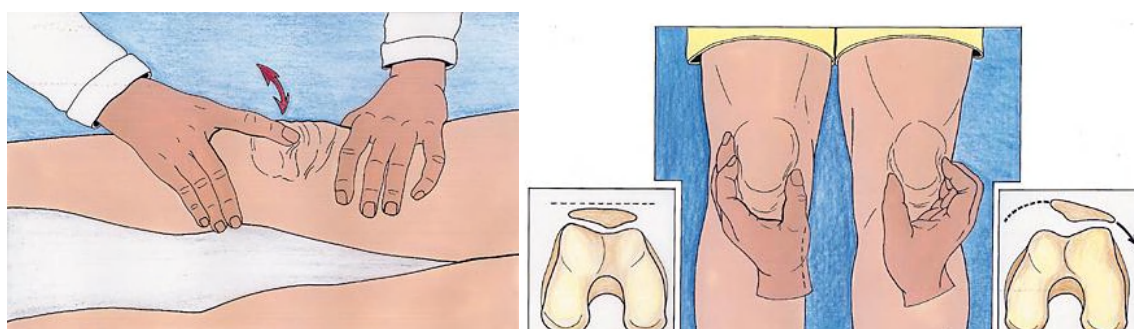


Next you should get the patient to lie on the bed and make a general observation. Look for symmetry, redness, muscle wasting, scars, rashes or fixed flexion deformities.

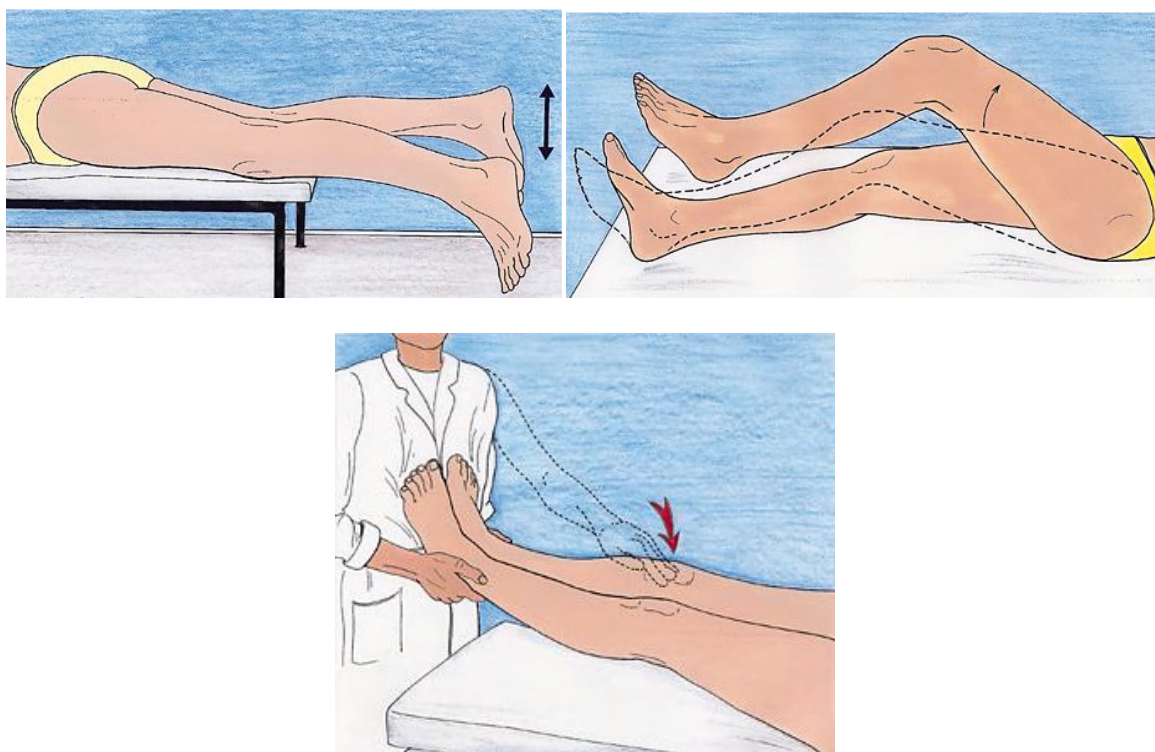


Next you should feel the joint. Check the temperature using the backs of your hands, comparing it with other parts of the leg. Palpate the border of the patella for any tenderness, behind the knee for any swellings, along all of the joint lines for tenderness and at the point of insertion of the patellar tendon. Finally, tap the patella to see if there is any effusion deep to the patella.





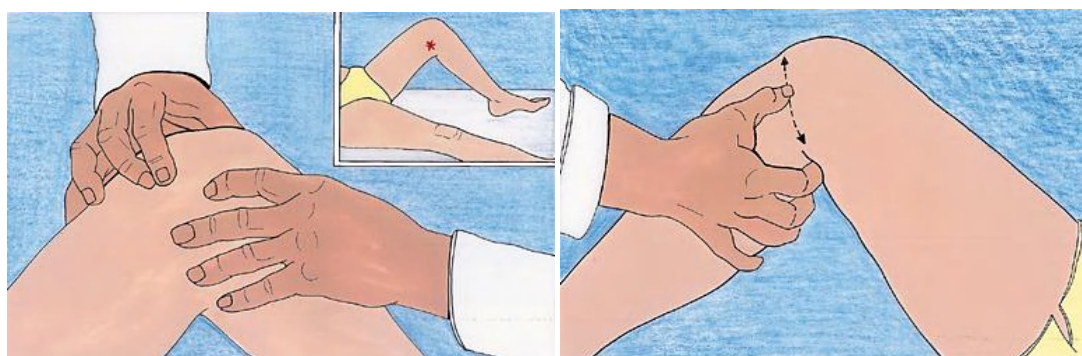
The main movements which should be examined both actively and passively are flexion and extension. A full range of movements should be demonstrated and you should feel for any crepitus.



There are a number of special tests which should also be performed.

Meniscal Lesion

Broadly speaking, the menisci should be examined with the knee in flexion. There must be tenderness (i.e. the patient must respond to palpation with pain). There are various ways in which the sensitivity of the tests can be enhanced. However, all the tests for meniscal lesions rely on the same principle: Stressing an injured medial or lateral meniscus will cause pain.

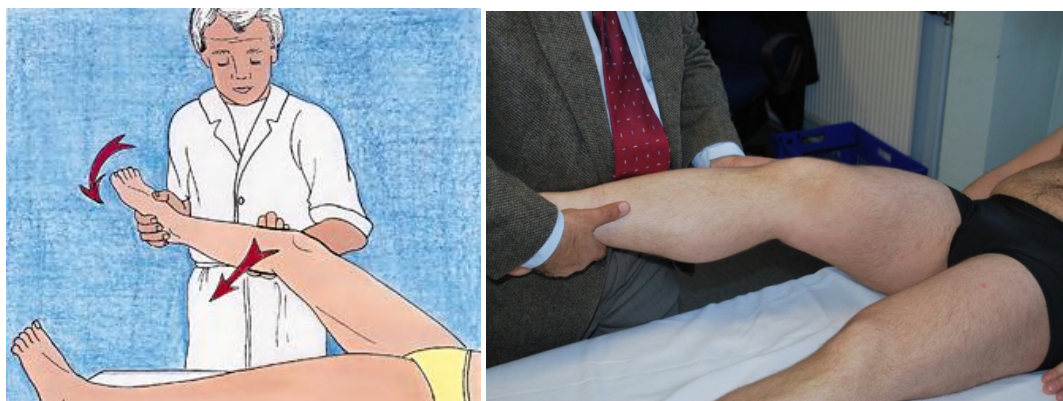
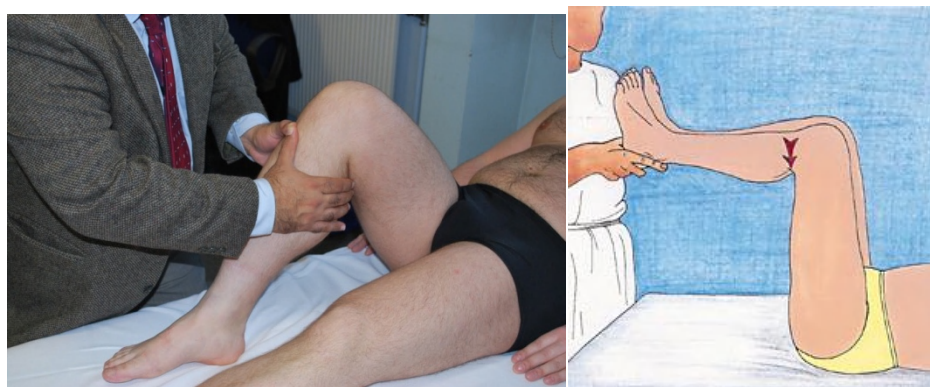


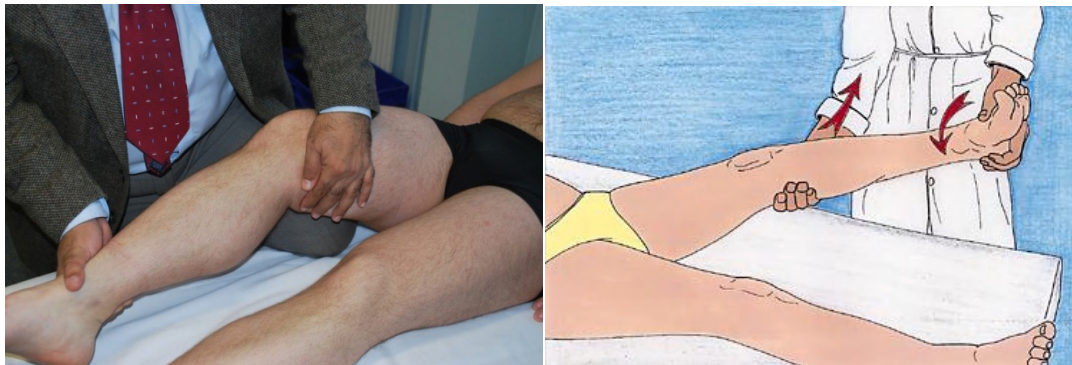
I do not do any of the grind tests as they are very painful and add no information .

Laxity

Flex the knee on the surgeon's knee. Pull forward on the tibia just distal to the knee (Lachman Test). There should be no movement, however, if there is it suggests anterior cruciate ligament damage. With the knee in the same position, look for any posterior lag of the joint, this suggests posterior cruciate damage. Finally you should hold the leg with the

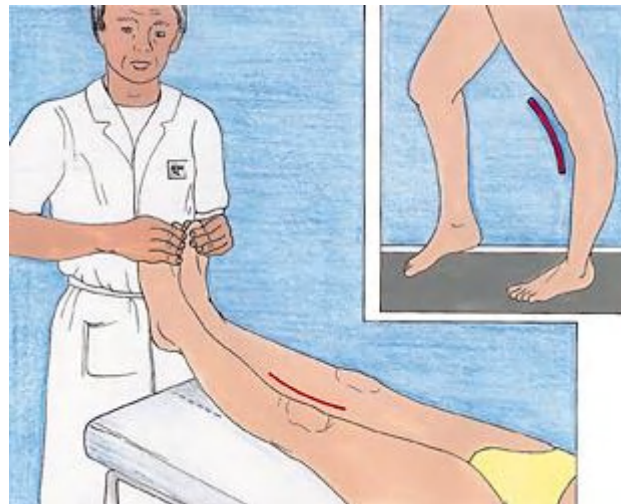
knee flexed to 15 degrees and place lateral and medial stress on the knee. Any excessive movement suggests collateral ligament damage.





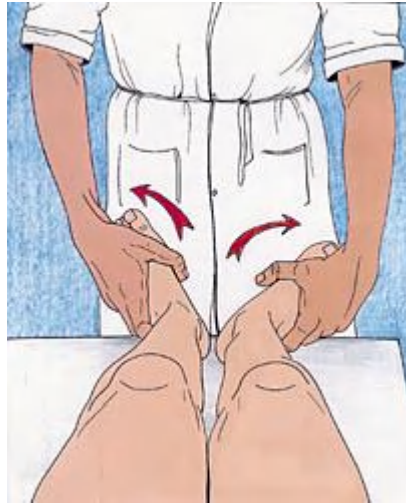
Posterolateral instability

External rotation recurvatum test: The patient is supine. The examiner stands at the foot of the couch, and grasps the patient's big toes, lifting the feet off the couch. The affected knee will go into varum-plus-recurvatum



Increased external rotation

It is indicative of lateral lesions. The test is performed as a side-to-side comparison:- External rotation in 20° flexion: The examiner stands at the foot of the couch, and looks for unequal rotation. The difference found may be expressed in degrees



Rotational Profile

It is assessed by a walk in a straight line to assess intoeing or extoing, version of the femur by Ryders test and finally thigh foot angle and tibial and intermalleolar index.





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