	Table 37-2. Proper Examination Techniques
STRUCTURE	
OF CONCERN	EXAMINATION TECHNIQUES
Anterior cruciate	Lachman Test (Figure 37-2)
ligament tear	Knee bent to 30 to 45 degrees with relaxed hamstrings
	Pull tibia forward relative to femur, assess end point
	Lack of firm end point suggests incompetent anterior cruciate ligament
	Anterior Drawer
	Knee bent to 90 degrees
	Sit on foot
	Pull tibia forward relative to femur, assess anterior motion
Meniscal tear	Duck Walk (Figure 37-3)
	Patient squats (like catcher in baseball)
	Takes 5 steps forward (walks like a duck)
	Catch, click, or focal pain implies meniscal tear
	Joint Line Tenderness
	Run finger along medial and lateral space between femur and tibia
	Pain suggests tear
	McMurray Test (Figures 37-4 and 37-5)
	With patient supine, place finger on lateral or medial joint line
	Rotate knee into flexion with varus/valgus stress with finger on joint line
	Pain and click implies meniscal tear
	Apley Test
	Patient lies on stomach with knee bent 90 degrees
	Examiner places hand on heel to push tibia against femur
	Internally and externally rotate heel
	Pain or click implies meniscal tear
Patellar instability	Visual Examination
(dislocation or subluxation)	Dislocated patella located adjacent to lateral femoral condyle
	Apprehension Test (see Figure 38-2)
	Patient supine, knee bent 30 degrees
	Place thumbs on medial border of patella
	Push patella laterally
	Patient pain or apprehension indicates patellar instability
Medial collateral ligament tear	With patient supine and knee extended
	Apply valgus stress test (pull lower leg away from other leg) at full extension and 30 degrees of flexion, compare laxity with noninjured knee (Figure 37-6)
	Laxity in full extension implies injury (not just to medial collateral ligament, but also to other medial or posteromedial structures [indicates immediate referral])
	Laxity only at 30 degrees of flexion implies isolated medial collateral liga- ment injury