Lactate dehydrogenase	Levels greater than 300 IU/L seen in rheumatoid arthritis, gout or infection	Appearance	Normally clear to light yellow
Glucose	Less than half serum glucose level seen in infection or severe inflammation	White cells	Infection, gout, pseudogout, inflammatory arthritides (e.g. rheumatoid arthritis, HLA-B27 associated arthritis)
Crystals	Gout: monosodium urate—negatively birefringent, needle-shaped crystals seen under red polarised light		Traumatic tap, traumatic or spontaneous coagulopathy related haemarthrosis
Endous	Pseudogout: calcium pyrophosphate dihydrate—positively birefringent, rhomboidal crystals seen under red polarised light	Protein	Levels greater than 30 g/L seen in infection and inflammatory arthritides