Osteoarthritis (OA) is one of the most frequently occurring health problems in middle aged and older people. Treatment of OA is focused on treating symptoms while it might be more effective to start treatment before symptoms are present. Early predictive signs for evident knee OA need to be identified, so it will be possible to define people that will get OA in the future. This thesis describes the evaluation of different classification criteria and the identification of radiographic and MRI features that are related to different aspects of clinical symptoms and risk factors of (early) knee OA.