Early loosening of hip replacements: Causes, course and diagnosis

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Early loosening of joint implants is largely determinated by a combination of five factors (patient, material, implant design, fixation and operative technique). To preserve bone stock, avoid complex reconstructive surgery, obtain good functional results and relief of pain the indication for revision should be made at an early stage on the basis of the diagnostic trio history, clinical findings, radiography and not delayed unnecessarily. Regular clinical examination and control radiographs following discharge from hospital enable surgeons to recognize early signs of complications. A useful algorithm is radiographs in two planes taken after one, two, and five years and in cases without visible morphological changes and pain also after ten years (cumulative risk of failure <5%). If there is an evidence of one or two radiographic criteria for loosening (sintering, migration, radiolucency, osteolysis) the risk that the implant will fail is increased by 5 to 10 times.