Periprosthetic fractures following hip replacement are increasing due to longer life expectancy and the rising number of joint replacements. The main causes of periprosthetic fractures include trauma, implant specific factors or loosening of the endoprosthesis. When planning therapy, surgeons should consider specific and general implant- and patient-related risk factors to ensure the best possible treatment. Established classification systems can facilitate preoperative planning. At present, the Vancouver classification system probably comes closest to the ideal, as it considers fracture configuration, stability of the implant and quality of the bone stock. Depending on these factors, therapeutic options include conservative treatment, fracture stabilisation or replacement of the endoprosthesis. The problems associated with periprosthetic fractures of varying etiology and the available treatment options are discussed against the background of the established classification systems.