Injuries to the extensor apparatus of the knee are a rare but in case of their occurrence a serious injury. In the following discussion, the focus is on treatment of chronic patellar tendon tears. The aim of surgical treatment is the recovery of the active extension and full weight-bearing ability of the leg. The video presentation shows the operative treatment of a patient with a chronic extensor mechanism deficiency of the knee after multiple revision of a total knee arthroplasty due to periprosthetic infection and three-times occurrence of a patella tendon tear. A frame-shaped reinforcement between patella and tibial tuberosity by FiberTape® combined with a medial gastrocnemius flap was performed. This type of surgery is indicated in cases of large defects of the patellar tendon that cannot be treated with end-to-end suture or simple augmentation with autologous tendons (e.g. semitendinosus). In addition to augmentation of the tendon defect, cutaneous soft tissue defects around the knee and proximal lower leg can be covered. In general, the best treatment option is chosen according to size of the defect, the quality of the tendon tissue and possible previous surgery on the knee joint. There are no reports of large series of chronic patella tendon tears, but only isolated cases using a variety of techniques. In addition with low level of evidence, there is currently no established gold standard in the surgical treatment of insufficiencies of the extensor
apparatus of the knee.